 NATIONAL GEOGRAPHIC  
**Reach**  
for **Reading**  
COMMON CORE PROGRAM



**Program Authors**

Nancy Frey  
Lada Kratky  
Nonie K. Lesaux  
Sylvia Linan-Thompson  
Deborah J. Short  
Jennifer D. Turner





## Meet the Artist

**Joel Sotelo** grew up in Tijuana, Mexico and began coming to the United States with his mother as a young child. He now lives in San Diego where he works as an artist and designer. Sotelo loves to travel and integrates elements of many countries and cultures into his art.

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## Moving Through Space



### ? BIG QUESTION

What does it take to explore space?






### READING SKILLS

Compare and Contrast  
Synthesize  
Draw Conclusions

<b>Week 1</b> .....	T423g
<b>What's Faster Than a Speeding Cheetah?</b> .....	<b>Math Article</b> T433
by Robert E. Wells	 <b>Comprehension Coach</b>
<b>Research Project: Speedy Animals</b> .....	T445a

Explain Scientific Text  
Explain Uses of Reasons  
and Evidence  
Draw Conclusions

<b>Week 2</b> .....	T445e
<b>Building for Space Travel</b> .....	<b>Science Report</b> T447
by Anastasia Suen	
 <b>NATIONAL GEOGRAPHIC EXCLUSIVE</b>	
<b>Ask an Astronaut!</b> .....	<b>Astronaut Blog</b> T453b
by Astronaut Jamal Holmer	 <b>Interactive Whiteboard</b>
<b>Writing Project: Informational Essay</b> .....	T453i
	 <b>Magazine Maker</b>

Plot  
Synthesize  
Form Generalizations

<b>Week 3</b> .....	T453o
<b>The Moon Over Star</b> .....	<b>Realistic Fiction</b> T461
by Dianna Hutts Aston; illustrated by Jerry Pinkney	 <b>Comprehension Coach</b>
<b>Writing Project: Original Story</b> .....	T477a
	 <b>Magazine Maker</b>

Compare Points of View  
Compare and Contrast  
Accounts  
Form Generalizations

<b>Week 4</b> .....	T477g
<b>The First Person on the Moon</b> .....	<b>Biography</b> T479
adapted from the National Aeronautics and Space Administration (NASA) Web site	
<b>The Lunar Landing</b> .....	<b>Firsthand and Secondhand Accounts</b> T483a
accounts from Neil Armstrong, Walter Cronkite, and Edwin Aldrin	 <b>Interactive Whiteboard</b>
<b>Writing Project: Personal Narrative</b> .....	T484

### RESOURCES

Practice Masters PM7.1–PM7.39  
Small Group Reading SG1–SG68

Assessment Masters A7.1–A7.46  
Reteaching Masters RT7.1–RT7.16

# Classroom Management

## Whole Group Time

### TEACHER

- Introduce Anthology
- Conduct Reading Lessons
- Teach Daily Language Arts
  - Daily Spelling & Word Work
  - Daily Grammar
  - Daily Writing Skills
- Differentiate Instruction
- Guide Writing Projects
- Assess Progress

### STUDENT

- Read and Respond to Fiction and Nonfiction
- Build Content Knowledge
- Develop Reading Skills
- Engage in Language Arts Activities
- Collaborate on Writing Projects
- Complete Assessments

## Small Group Reading Time

### TEACHER

- Introduce Books
- Conduct Mini Lessons
- Monitor Small Group Reading
- Guide Discussion
- Assess Progress

### STUDENT

- Read and Discuss Books
- Extend Content Knowledge
- Apply Reading Skills
- Connect and Compare Texts
- Demonstrate Comprehension

## Learning Station Time

### TEACHER

- Suggest Books for Independent Reading
- Introduce Learning Stations
- Meet with Small Groups or Individuals for Intervention, Reteaching, or Acceleration
- Guide and Redirect as Needed

### STUDENT

- Read Independently
- Complete Learning Station Activities
- Meet for Intervention, Reteaching, or Acceleration
- Work on Assigned Skills Practice

# MOVING THROUGH SPACE



**?**  
**BIG**  
Question

What does it take to explore space?

## Exploring Space

Week 1 Forces & Motion	Week 2 Moon, Space, and Stars	Week 3 Exploring Space	Week 4 Exploring Space
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# Unit 7 Program Resources

## WHOLE GROUP TIME



### Student Technology

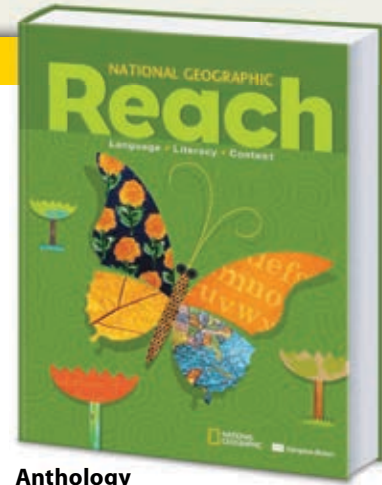
- Student eEdition
- Digital Library
- Build Background Video
- Other Student Resources



Student eEdition



Build Background Video



Anthology



Interactive Whiteboard



Mark-Up Models 7.1, 7.2

## SMALL GROUP READING TIME



Fiction Books



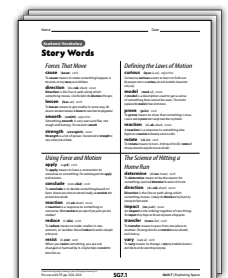
Nonfiction Books



Explorer Books



Leveled Book Finder



Small Group Reading Masters  
SG7.1–SG7.32

## LEARNING STATION TIME



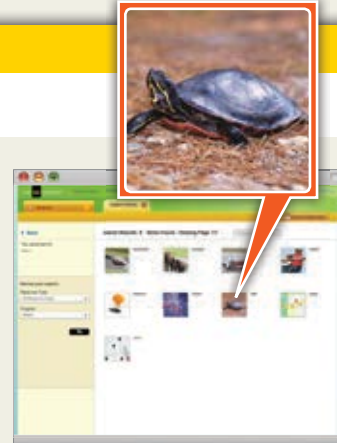
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### Student Technology

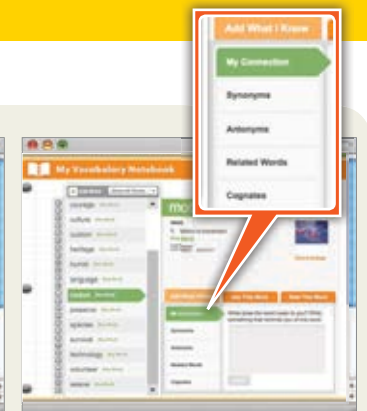
- My Assignments
- My Vocabulary Notebook
- Vocabulary Games
- Comprehension Coach
- Read with Me MP3s
- Fluency MP3s
- Practice Masters
- Teamwork Activities
- Other Student Resources



Comprehension Coach



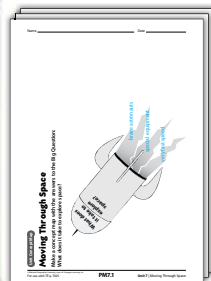
Digital Library



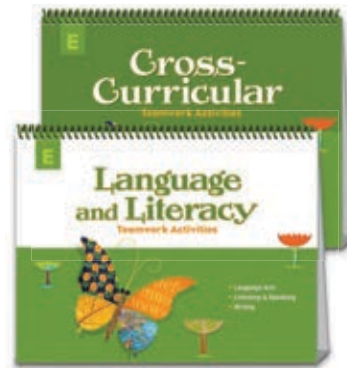
My Vocabulary Notebook



Practice Book  
PM7.1-PM7.39



Practice Masters  
PM7.1-PM7.31



Teamwork Activities

### ESL Kit



Reach into Phonics Kit

## PLANNING RESOURCES



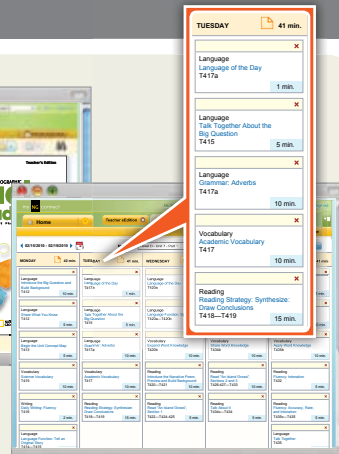
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### Teacher Technology

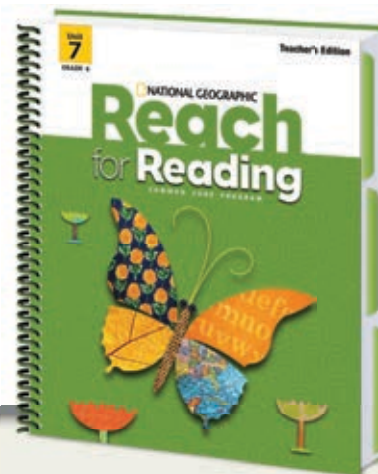
- Student and Teacher eEditions
- Lesson Planner
- eVisuals 7.1-7.35
- Family Newsletter 7 (in seven languages)
- Teamwork Activities Teacher's Guides
- Test-Taking Strategies Teacher's Guide
- Professional Development
- Other Teacher Resources



Teacher's eEdition



Online Lesson Planner



### Teacher's Edition

- Whole Group Lessons
- Practice Masters
- Small Group Reading
- Assessment and Reteaching Masters

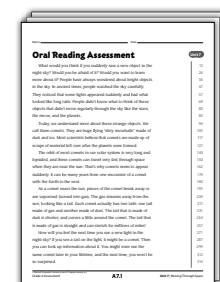
## ASSESSMENT & RETEACHING



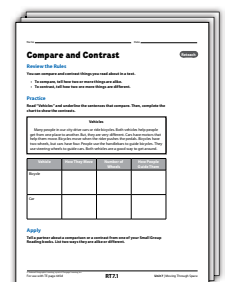
eAssessment™



ExamView®



Assessment Masters  
A7.1-A7.46



Reteaching Masters  
RT7.1-RT7.16

# Unit 7







BL = BELOW LEVEL

OL = ON LEVEL

BL = BELOW LEVEL

AL = ABOVE LEVEL

✓ = TESTED SKILL

Introduce Unit 7	BUILD BACKGROUND VIDEO		INTRODUCE THE BIG QUESTION	
	WHOLE GROUP TIME			
	Speaking and Listening		Language and Vocabulary	Reading
<b>Week 1</b> 	Ask and Answer Questions Explain a Concept		<ul style="list-style-type: none"> <li>✓ Daily Spelling and Word Work: Words with hard and soft c and g, and Commonly Misspelled Words</li> <li>✓ Daily Grammar: Adverbs and Adjectives</li> <li>✓ Social Studies Vocabulary  <b>accelerate height measure motion speed</b></li> <li>✓ Academic Vocabulary  <b>average distance rate scale solve comparison synthesize conclusion graph</b></li> </ul>	Read and Comprehend a Math Article <ul style="list-style-type: none"> <li>✓ Compare and Contrast</li> <li>✓ Synthesize Conclusions</li> <li>✓ Fluency: Practice Intonation</li> </ul>
<b>Week 2</b>  	Discuss Drawing Conclusions Relate Readings to the Big Question		<ul style="list-style-type: none"> <li>✓ Daily Spelling and Word Work: Words with oo; words with silent consonants, and Commonly Misspelled Words</li> <li>✓ Daily Grammar: Adverbs (including comparisons with -er and -est, more/most, less/least)</li> <li>✓ Multiple-Meaning Words</li> </ul>	Read and Comprehend a Science Report <ul style="list-style-type: none"> <li>✓ Explain Scientific Text</li> <li>✓ Synthesize Conclusions</li> </ul> Read and Comprehend Other Astronauts' Reports <ul style="list-style-type: none"> <li>✓ Reasons and Evidence</li> <li>Compare Facts and Opinions</li> <li>✓ Fluency: Practice Intonation</li> </ul>
<b>Week 3</b> 	Clarify Report on a Concept		<ul style="list-style-type: none"> <li>✓ Daily Spelling and Word Work: Words with VCV and VCCV patterns, and Commonly Misspelled Words</li> <li>✓ Daily Grammar: Relative Adverbs: when, where, and why</li> <li>✓ Social Studies Vocabulary  <b>astronaut launch orbit planet rotation</b></li> <li>✓ Academic Vocabulary  <b>capacity constant limit resistance technology clarify generalization</b></li> </ul>	Read and Comprehend Realistic Fiction <ul style="list-style-type: none"> <li>✓ Determine Plot</li> <li>✓ Synthesize Generalizations</li> <li>✓ Fluency: Practice Expression</li> </ul>
<b>Week 4</b>  	Discuss Generalizations Relate Readings to the Big Question		<ul style="list-style-type: none"> <li>✓ Daily Spelling and Word Work: Multisyllabic words with VCCV and VCCCV patterns, and Commonly Misspelled Words</li> <li>✓ Daily Grammar: Prepositions and Prepositional Phrases</li> <li>✓ Word Parts</li> </ul>	Read and Comprehend a Biography <ul style="list-style-type: none"> <li>✓ Compare Points of View</li> <li>✓ Synthesize to Form Generalizations</li> </ul> Read and Comprehend a Report <ul style="list-style-type: none"> <li>✓ Compare and Contrast Accounts</li> <li>✓ Fluency: Phrasing</li> </ul>
<b>Unit 7 Wrap-Up</b>	ANSWER THE BIG QUESTION		UNIT PROJECTS	



## **BIG Question** What does it take to explore space?

<b>Writing</b>	<b>SMALL GROUP READING TIME</b>	<b>LEARNING STATION TIME</b>	<b>ASSESSMENT &amp; RETEACHING</b>
<p>Power Writing Write a Comparison Write a Conclusion Write About Graphs Write About It Daily Writing Skills: Identify Big Concepts and Integrate Information from Multiple Sources Research Project: Identify Big Concepts and Integrate Information from Multiple Sources</p>	<p><b>I</b> <i>Soaring with Science</i> <b>BL</b> <i>Forces that Move</i> <b>BL</b> <i>Defining the Laws of Motion</i> <b>OL</b> <i>Using Force and Motion</i> <b>AL</b> <i>The Science of Hitting a Home Run: Forces and Motion in Action</i></p>	<p><b>Speaking and Listening</b> Who or What Is Faster?; Observe a Slow Animal <b>Language and Vocabulary</b> Games; My Vocabulary Notebook <b>Writing</b> Report on the Night Sky; Write a Review <b>Cross-Curricular</b> Animal Olympics; Which Way is Fastest? <b>Reading and Intervention</b> Comprehension Coach; Author Study: Robert E. Wells; Phonics; ESL Kit</p>	<p><input checked="" type="checkbox"/> Compare and Contrast <input checked="" type="checkbox"/> Synthesize and Draw Conclusions <input checked="" type="checkbox"/> Fluency: Practice Intonation <input checked="" type="checkbox"/> Science and Academic Vocabulary <input checked="" type="checkbox"/> Spelling: Words with hard and soft c and g, and Commonly Misspelled Words <input checked="" type="checkbox"/> Grammar: Adverbs and Adjectives</p>
<p>Power Writing Write About Ideas Write a Response Write to Reinforce Grammar Write About Reasons and Evidence Write Facts and Opinions <input checked="" type="checkbox"/> Daily Writing Skills: Break Up Long Sentences Writing Project: Write an Informational Essay</p>	<p><b>I</b> <i>Destination Moon</i> <b>BL</b> <i>Lighter on the Moon</i> <b>BL</b> <i>Exploring Space</i> <b>OL</b> <i>The International Space Station</i> <b>AL</b> <i>Stars and Galaxies</i></p>	<p><b>Speaking and Listening</b> When? Where?; Learn About Space <b>Language and Vocabulary</b> Games; My Vocabulary Notebook <b>Writing</b> Space Log; Describe a Planet to Visit <b>Cross-Curricular</b> Measure the Pull; Study Human Habitats <b>Reading and Intervention</b> Read About Extreme Human Habitats; Author Study: Anastasia Suen; Phonics; ESL Kit</p>	<p><input checked="" type="checkbox"/> Explain Scientific Text <input checked="" type="checkbox"/> Synthesize and Draw Conclusions <input checked="" type="checkbox"/> Fluency: Practice Intonation <input checked="" type="checkbox"/> Multiple-Meaning Words <input checked="" type="checkbox"/> Spelling: Words with oo, words with silent consonants, and Commonly Misspelled Words <input checked="" type="checkbox"/> Grammar: Adverbs <input checked="" type="checkbox"/> Writing: Break Up Long Sentences <input checked="" type="checkbox"/> Writing Trait: Sentence Fluency</p>
<p>Power Writing Write to Retell Write Generalizations Write Dialogue Writer's Craft: Descriptive Words Write About It <input checked="" type="checkbox"/> Daily Writing Skills: Use a Concluding Sentence Writing Project: Write an Original Story</p>	<p><b>I</b> <i>Living It Up in Space</i> <b>BL</b> <i>Richie's Rocket</i> <b>BL</b> <i>Stanley in Space (Part 1)</i> <b>OL</b> <i>Star Jumper: Journal of a Cardboard Genius (Part 1)</i> <b>AL</b> <i>Space Mission Adventure (Part 1)</i></p>	<p><b>Speaking and Listening</b> Give an Example; Restate Moon Facts <b>Language and Vocabulary</b> Games; My Vocabulary Notebook <b>Writing</b> Quote, Unquote; What Would You Say? <b>Cross-Curricular</b> Put a Ball in Orbit; How Space Research Affects People <b>Reading and Intervention</b> Comprehension Coach; Author Study: Diana Hutts Aston; Phonics; ESL Kit</p>	<p><input checked="" type="checkbox"/> Determine Plot <input checked="" type="checkbox"/> Synthesize to Form Generalizations <input checked="" type="checkbox"/> Fluency: Practice Expression <input checked="" type="checkbox"/> Science and Academic Vocabulary <input checked="" type="checkbox"/> Spelling: Words with VCV and VCCV patterns, and Commonly Misspelled Words <input checked="" type="checkbox"/> Grammar: Relative Adverbs <input checked="" type="checkbox"/> Writing: Concluding Sentences <input checked="" type="checkbox"/> Writing Trait: Organization</p>
<p>Power Writing Write With a Point of View Write a Response Write to Reinforce Grammar Write About Accounts Write About Point of View <input checked="" type="checkbox"/> Daily Writing Skills: Maintain Point of View Writing Project: Write a Personal Narrative</p>	<p><b>I</b> <i>Saturn: The Ring World</i> <b>BL</b> <i>Moonshot</i> <b>BL</b> <i>Stanley in Space (Part 2)</i> <b>OL</b> <i>Star Jumper: Journals of a Cardboard Genius (Part 2)</i> <b>AL</b> <i>Space Mission Adventure (Part 2)</i></p>	<p><b>Speaking and Listening</b> Watch a Video; What's in Moon's Future? <b>Language and Vocabulary</b> Games; My Vocabulary Notebook <b>Writing</b> What Did You Say?; Write About Your Moon Landing <b>Cross-Curricular</b> Race to the Moon; Space Speeds <b>Reading and Intervention</b> Read Reactions; Read Other Stories About the Moon Landing; Phonics; ESL Kit</p>	<p><input checked="" type="checkbox"/> Compare Points of View <input checked="" type="checkbox"/> Synthesize to Form Generalizations <input checked="" type="checkbox"/> Fluency: Practice Phrasing <input checked="" type="checkbox"/> Word Parts <input checked="" type="checkbox"/> Spelling: Multisyllabic words with VCV and VCCV patterns, and Commonly Misspelled Words <input checked="" type="checkbox"/> Grammar: Prepositions and Prepositional Phrases <input checked="" type="checkbox"/> Writing: Maintain Point of View <input checked="" type="checkbox"/> Writing Trait: Voice</p>

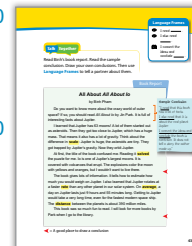
# Week 1 Planner



Online Lesson Planner  
NGReach.com



☑ = TESTED

		Day 1	Day 2
<b>WHOLE GROUP TIME</b>			
<b>Anthology</b>	<b>Speaking and Listening</b> 🕒 5–10 minutes	<b>Listen and Comprehend</b> <b>Science Background</b> CC.4.SL.1.a; CC.4.SL.2 Introduce the Big Question; Preview Unit Projects T424–T425 <b>Academic Talk</b> Ask and Answer Questions T426	<b>Read and Comprehend</b> <b>Academic Talk</b> CC.4.SL.6 Explain a Concept T428a
	<b>Language and Vocabulary</b> 🕒 20 minutes	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; CC.4.Rfou.3.a; ☑ Words with Hard and CC.4.L.1.g; CC.4.L.2; Soft c, g T423k CC.4.L.2.d <b>Daily Grammar</b> CC.4.L.1; CC.4.L.3 ☑ Adverbs T423m <b>Science Vocabulary</b> CC.4.Rlit.4; CC.4.Rinf.4; ☑ Learn Key Words T426–T427 CC.4.L.6 <b>accelerate height measure motion speed</b>	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; ☑ Practice T423k CC.4.Rfou.3.a; CC.4.L.2.d <b>Daily Grammar</b> CC.4.L.1; CC.4.L.3 ☑ More Adverbs T423m <b>Academic Vocabulary</b> CC.4.Rlit.4; CC.4.Rinf.4; ☑ Learn More Key Words T428a–T429 CC.4.L.6 <b>average conclusion distance rate scale solve synthesize</b>
	<b>Reading</b> 🕒 20–40 minutes	<b>Reading</b> Read Aloud: Science Essay T427a <b>Comprehension</b> CC.4.Rinf.5 ☑ Compare and Contrast T427a <b>Fluency</b> CC.4.Rfou.4 ☑ Model Intonation T427a	<b>Reading</b> CC.4.Rinf.10 Read a Book Report; Read and Build Comprehension T430 <b>Comprehension</b> CC.4.Rinf.10 ☑ Synthesize T430 ☑ Draw Conclusions T430 <b>Fluency</b> CC.4.Rfou.4 ☑ Practice Intonation T430
	<b>Writing</b> 🕒 15–45 minutes	<b>Power Writing</b> T426 CC.4.W.10 <b>Daily Writing Skills</b> CC.4.Rinf.9; CC.4.W.2; CC.4.W.2.a; ☑ Identify Big Concepts and Integrate CC.4.W.8 Information from Multiple Sources T423o <b>Writing</b> CC.4.W.10 ☑ Write a Comparison T428 <b>Research Project: Identify Big Concepts/ Integrate Information from Multiple Sources</b> CC.4.W.2 CC.4.W.2.a; CC.4.W.2.b Plan T445a	<b>Power Writing</b> T428a CC.4.W.10 <b>Daily Writing Skills</b> CC.4.Rinf.9; CC.4.W.2; CC.4.W.2.a; ☑ Identify Big Concepts and Integrate CC.4.W.8 Information from Multiple Sources T423o <b>Writing</b> CC.4.W.10 ☑ Write a Conclusion T430–T431 <b>Research Project: Identify Big Concepts/ Integrate Information</b> CC.4.W.2.b; CC.4.W.7; CC.4.W.8 Research T445a



<b>SMALL GROUP READING TIME</b>		Read Science Articles	Read Nonfiction Books
<b>Fiction &amp; Nonfiction</b>	<b>20 minutes</b>	<b>Vocabulary</b> CC.4.L.6 Learn Science Vocabulary SG5 <b>Reading</b> CC.4.Rinf.4; CC.4.Rinf.10 Read and Comprehend Informational Text SG4–SG5 ☑ Determine Word Meanings SG4–SG5 ☑ Build Comprehension SG5	<b>Vocabulary</b> CC.4.L.6 Learn Story Words SG6–SG7 <b>Reading</b> CC.4.Rinf.10; CC.4.Rinf.5 Introduce SG6–SG7 ☑ Draw Conclusions SG8–SG9 ☑ Explain Text Structure: Compare and Contrast SG8–SG9
			

<b>LEARNING STATION TIME</b>		
<b>20 minutes</b>		<b>Speaking and Listening</b> T423i CC.4.SL.1; CC.4.SL.1.c; CC.4.L.5 <b>Language and Vocabulary</b> T423i CC.4.L.6 <b>Writing</b> T423i CC.4.W.2; CC.4.W.3; CC.4.W.3.a <b>Cross-Curricular</b> T423j CC.4.W.7; CC.4.SL.1; CC.4.SL.4 <b>Reading and Intervention</b> T423j, SG68 CC.4.Rinf.10; CC.4.Rfou.3; CC.4.Rfou.3.a; CC.4.Rfou.4; CC.4.Rfou.4.b; CC.4.Rfou.4.c

**BIG Question** What does it take to explore space?

**Day 3**

**Read and Comprehend**

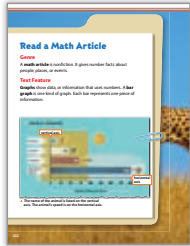
**Academic Talk** CC.4.Rinf.1  
Preview and Predict T432

**Daily Spelling and Word Work** CC.4.Rfou.3; CC.4.Rfou.3.a;  
✓ Practice T423I CC.4.L.2

**Daily Grammar** CC.4.L.1; CC.4.L.3  
✓ Adverb vs. Adjective T423n

**Vocabulary Practice** CC.4.L.6  
✓ Expand Word Knowledge T432

**Reading** CC.4.Rinf.7; CC.4.Rfou.4.a  
Read a Math Article T433–T438



**Comprehension** CC.4.Rinf.7; CC.4.SL.2  
✓ Draw Conclusions T436–T438

✓ Compare and Contrast T436–T438

✓ Interpret Graphs T434, T438

**Fluency** CC.4.Rfou.4; CC.4.Rfou.4.b  
✓ Practice Intonation, Accuracy, and Rate T434–T435

**Power Writing** T432 CC.4.W.10

**Daily Writing Skills** CC.4.Rinf.9; CC.4.W.2;  
✓ Identify Big Concepts and Integrate Information from Multiple Sources T423p CC.4.W.8

**Writing** CC.4.W.9; CC.4.W.9.b;  
✓ Write About Graphs T439 CC.4.W.10

**Research Project: Identify Big Concepts and Integrate Information** CC.4.W.7; CC.4.W.8

✓ Research T445a

**Day 4**

**Read and Comprehend**

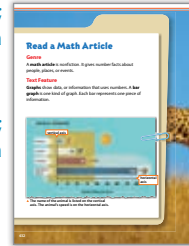
**Academic Talk** CC.4.Rinf.2  
Summarize Reading T440

**Daily Spelling and Word Work** CC.4.Rfou.3; CC.4.L.1.g;  
✓ Practice T423I CC.4.L.2.d

**Daily Grammar** CC.4.W.5; CC.4.L.1; CC.4.L.3  
✓ Grammar and Writing T423n

**Vocabulary Practice** CC.4.L.6  
✓ Share Word Knowledge T440

**Reading** CC.4.Rinf.7; CC.4.Rfou.4.a  
Read a Math Article T441–T442



**Comprehension** CC.4.Rinf.7; CC.4.Rfou.4.a  
✓ Draw Conclusions T441–T442

✓ Compare and Contrast T441–T442

**Fluency** CC.4.Rfou.4; CC.4.Rfou.4.b  
✓ Practice Intonation, Accuracy, and Rate T441

**Power Writing** T440 CC.4.W.10

**Daily Writing Skills** CC.4.Rinf.9; CC.4.W.2;  
✓ Identify Big Concepts and Integrate Information from Multiple Sources T423p CC.4.W.8

**Writing** CC.4.W.10  
✓ Write Reasons T443

**Research Project: Identify Big Concepts and Integrate Information** CC.4.Rinf.9; CC.4.W.2.e

✓ Organize T445b

**Day 5**

**Review and Apply**

**Academic Talk** CC.4.Rinf.1  
Talk About It T444

**Daily Grammar** CC.4.W.5; CC.4.L.1; CC.4.L.3  
✓ Review T423n

**Vocabulary Review** CC.4.L.6  
✓ Apply Word Knowledge T444

**Reading** CC.4.Rinf.10  
Reread a Math Article T433–T442

**Comprehension** CC.4.Rinf.10  
✓ Compare and Contrast T444a

**Fluency** CC.4.Rfou.4.b  
✓ Check Intonation, Accuracy, and Rate T445

**Power Writing** T443a CC.4.W.10

**Daily Writing Skills** CC.4.Rinf.9; CC.4.W.2;  
✓ Identify Big Concepts and Integrate Information from Multiple Sources T423p CC.4.W.8

**Writing** CC.4.W.10  
✓ Write About It T444

**Research Project: Identify Big Concepts and Integrate Information** CC.4.W.2.a; CC.4.SL.5

✓ Present T445b

**Read Nonfiction Books**

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG6–SG9



**Reading** CC.4.Rinf.10; CC.4.Rinf.5  
✓ Draw Conclusions SG8–SG9

✓ Explain Text Structure: Compare and Contrast SG8–SG9

**Read Nonfiction Books**

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG6–SG9



**Reading** CC.4.Rinf.10; CC.4.Rinf.5  
✓ Draw Conclusions SG8–SG9

✓ Explain Text Structure: Compare and Contrast SG8–SG9

**Read Nonfiction Books**

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG6–SG7



**Reading** CC.4.Rinf.2; CC.4.Rlit.10;  
✓ Connect Across Texts SG9 CC.4.SL.1.a

**Writing** CC.4.W.10  
✓ Choose a Writing Option SG8–SG9

**ASSESSMENT & RETEACHING**

**Assessment and Reteaching** T445c–T445d

✓ Reading Comprehension Test A7.4–A7.5 CC.4.Rinf.1; CC.4.Rinf.2

✓ Reading Strategy Assessment SG57–SG58 CC.4.Rlit.10

✓ Oral Reading Assessment A7.1–A7.3 CC.4.Rfou.4.a

✓ Vocabulary Test A7.6–A7.7 CC.4.L.1.b; CC.4.L.6

✓ Spelling Test: Words with Hard and Soft c, g T423k CC.4.Rfou.3; CC.4.Rfou.3.a; CC.4.L.1.g; CC.4.L.2; CC.4.L.2.d

✓ Writing, Revising, and Editing Test A7.8–A7.10 CC.4.W.10; CC.4.L.1; CC.4.L.3

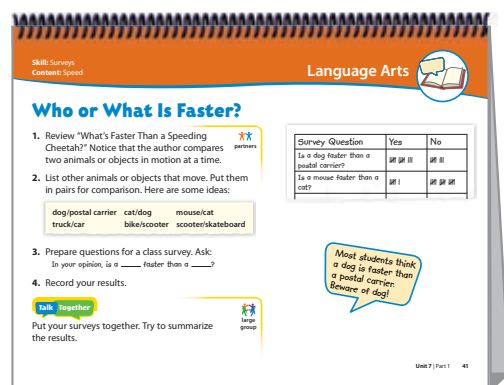
Reteaching Masters RT7.1–RT7.2



# Week 1 Learning Stations

## Speaking and Listening

### Option 1: Who or What Is Faster?



**Who or What Is Faster?**

- Review "What's Faster Than a Speeding Cheetah?" Notice that the author compares two animals or objects in motion at a time.
- List other animals or objects that move. Put them in pairs for comparison. Here are some ideas:
 

dog/postal carrier	cat/dog	mouse/cat
truck/car	bike/scooter	scooter/skateboard
- Prepare questions for a class survey. Ask: "In your opinion, is a \_\_\_\_\_ faster than a \_\_\_\_\_?"
- Record your results.

**Survey Question**

Survey Question	Yes	No
Is a dog faster than a postal carrier?	<input type="checkbox"/>	<input type="checkbox"/>
Is a mouse faster than a cat?	<input type="checkbox"/>	<input type="checkbox"/>

*Most students think a dog is faster than a postal carrier. Reverse of dog!*

**Task Together**  
Put your surveys together. Try to summarize the results.

### PROGRAM RESOURCES

#### Language and Literacy Teamwork Activities: Card 41

Pose and Respond to Questions

CC.4.SL.1.c

### Option 2: Observe a Slow Animal



**NGReach.com Student Resources**

Have partners watch and respond to a video about sloths. To view the video, have students go to Resources > Unit 7 > Learning Stations > Week 1 > Creature Features: Sloths.

- Have one student write a simile to express what he or she learned about sloths.
- Have the other partner visualize the simile and depict it in a drawing.
- Have partners reverse roles and repeat.

Discuss Topics, Expressing Ideas Clearly

CC.4.SL.1

Demonstrate Understanding of

Figurative Language

CC.4.L.5

## Language and Vocabulary

### Key Words

accelerate · average · comparison · conclusion  
distance · height · measure · motion · rate  
scale · solve · speed · synthesize

### Option 1: Vocabulary Games



**NGReach.com Online Vocabulary Games**

Acquire and Use Conversational, General Academic, and Domain-Specific Words

CC.4.L.6

### Option 2: My Vocabulary Notebook



**NGReach.com My Vocabulary Notebook**

Have students expand their word knowledge.

- Under Add More Information > Write a Sentence, have students write sentences using Key Words with the hard and soft c and g sounds.
- Under Add More Information > Write a Sentence, have students write sentences that include adverbs modifying Key Words that are verbs.

Acquire and Use Conversational, General Academic, and Domain-Specific Words

CC.4.L.6

## Writing

### Option 1: Report on the Night Sky

#### The Night Sky

The moon was very bright and full.

### MATERIALS

notes and drawings from **Family Newsletter 7**

Have students write reports about the night sky.

- Have students recall the night sky activity from **Family Newsletter 7** in which they observed the night sky with their families and took notes and made drawings.
- Have students use their notes and drawings to write a report explaining what they observed about the night sky.

Write Informative/Explanatory Text to Convey Information

CC.4.W.2

### Option 2: Write About an Imaginary Race

The animals lined up to begin the race.

Have students write funny stories about an imaginary race between several slow animals, such as a sloth, a tortoise, and a koala.

- Have students establish the settings of their stories, including the time and location of the race.
- Ask students to use words such as *first*, *next*, *then*, and *finally* to show the sequence of events.
- Have students read their stories aloud and act out their favorite parts.

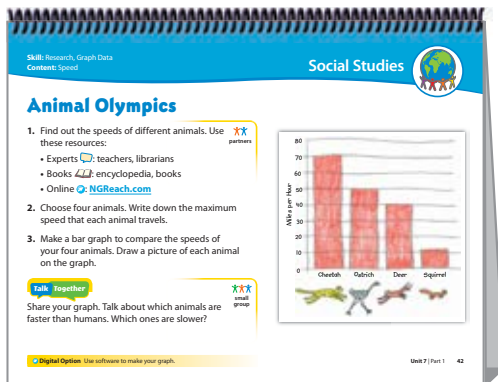
Write Narratives, Using Descriptive Details and Event Sequences  
Establish a Situation and Organize Events in a Sequence

CC.4.W.3

CC.4.W.3.a

**Cross-Curricular**

**Option 1: Animal Olympics** 



**Animal Olympics**

- Find out the speeds of different animals. Use these resources:
  - Experts: teachers, librarians
  - Books: encyclopedia, books
  - Online: [NGReach.com](http://NGReach.com)
- Choose four animals. Write down the maximum speed that each animal travels.
- Make a bar graph to compare the speeds of your four animals. Draw a picture of each animal on the graph.

**Share your graph.** Talk about which animals are faster than humans. Which ones are slower?

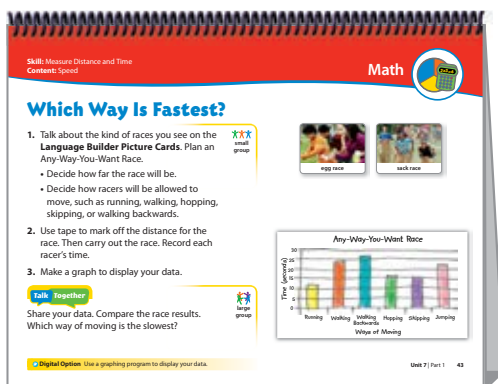
**Digital Option:** Use software to make your graph.

**PROGRAM RESOURCES & MATERIALS**

**Cross-Curricular Teamwork Activities: Card 42**  
*encyclopedia • books about animals • colored markers*

Conduct Research	CC.4.W.7
Discuss Topics, Building on Others' Ideas and Expressing Ideas Clearly	CC.4.SL.1

**Option 2: Which Way Is Fastest?** 



**Which Way Is Fastest?**

- Talk about the kind of races you see on the Language Builder Picture Cards. Plan an Any-Way-You-Want Race.
  - Decide how far the race will be.
  - Decide how racers will be allowed to move, such as running, walking, hopping, skipping, or walking backwards.
- Use tape to mark off the distance for the race. Then carry out the race. Record each racer's time.
- Make a graph to display your data.

**Share your data.** Compare the race results. Which way of moving is the slowest?

**Digital Option:** Use a graphing program to display your data.

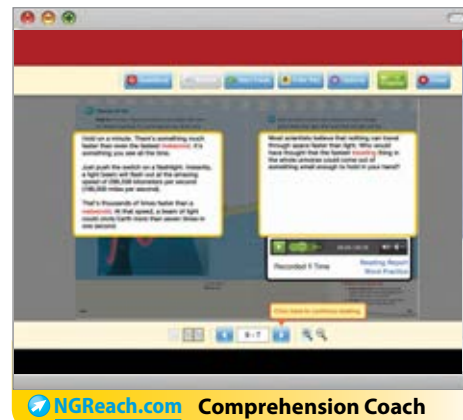
**PROGRAM RESOURCES & MATERIALS**

**Cross-Curricular Teamwork Activities: Card 43**  
**Digital Library: Language Builder Picture Cards E84–E85**  
*colored markers • stopwatch (optional)*

Conduct Research	CC.4.W.7
Report on a Topic	CC.4.SL.4

**Reading**

**Option 1: Comprehension Coach** 



**NGReach.com Comprehension Coach**

Read and Comprehend Informational Texts	CC.4.Rinf.10
Read with Accuracy and Fluency to Support Comprehension	CC.4.Rfou.4
Read Orally with Accuracy and Appropriate Rate on Successive Readings	CC.4.Rfou.4.b

**Option 2: Additional Reading** 

**PROGRAM RESOURCES**

**Week 1 Small Group Reading Titles, page SG6**  
**Independent Reading Recommended Books, page SG68**  
**Leveled Book Finder**

Have students choose a book they haven't read before from the Week 1 **Small Group Reading** titles (see page SG6), the Independent Reading Recommended Books (see page SG68), or the Leveled Book Finder.

After reading, have students write a sentence about something new they learned. Students may also wish to take books home for additional reading.

Read and Comprehend Informational Text	CC.4.Rinf.10
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**Intervention**

**Option 1: Phonics Games** 



**NGReach.com Online Phonics Games**

Apply Phonics and Word Analysis Skills	CC.4.Rfou.3
Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words	CC.4.Rfou.3.a

*For Reteaching Masters, see pages RT7.1–RT7.2.*

**Additional Resources**

**Reach into Phonics** 



Lessons 100 and 101

Use Context to Confirm or Self-Correct Word Recognition and Understanding	CC.4.Rfou.4.c
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**ESL Kit** 



ESL Teacher's Edition pages T424–T445.

# Week 1 Daily Spelling & Word Work

## OBJECTIVES

### Thematic Connection: Forces and Motion

- ✓ Spell Words with Hard and Soft *c, g*
- ✓ Use Commonly Misspelled Words Correctly

## SUGGESTED PACING

DAY 1	Pretest
DAY 2–4	Daily Practice Options
DAY 5	Test

## Spelling Pretest

Day 1



## Spelling Test

Day 5



## Spelling Words

Use these words and sentences for the weekly Spelling Pretest and Spelling Test.

### Words with Hard and Soft *c, g*

1. advantage	He is a faster runner, so he'll have an <b>advantage</b> over me in the race.
2. broadcast	We can watch the track meet because it will be <b>broadcast</b> on TV.
3. circuit	The elevated train tracks make a <b>circuit</b> around the downtown area.
4. conquer	She rode the roller coaster to <b>conquer</b> her fear of heights.
5. cylinder	The log looked like a brown <b>cylinder</b> rolling down the hill.
6. device	He invented a machine to record the movements of animals, and the <b>device</b> worked well.
7. engineer	An <b>engineer</b> helped design the machine.
8. gadget	I need to wear a <b>gadget</b> that calculates how many steps I walk.
9. genius	The scientist is so smart that people say she is a <b>genius</b> .
10. glimpse	As I whizzed by in the bullet train, I caught a very quick <b>glimpse</b> of the town.
11. gravity	Without <b>gravity</b> to pull people toward Earth, everyone would float away!
12. intelligent	Clever, <b>intelligent</b> aliens might travel to Earth.
13. oxygen	He took a deep breath when running the marathon because he needed more <b>oxygen</b> .
14. replacement	You can return that broken bike and get a <b>replacement</b> .
15. telescope	When I looked through my <b>telescope</b> , I saw a falling star.

### Watch-Out Words

16. finally	After our long hike up the hill, we <b>finally</b> had lunch.
17. finely	I ate a salad with tiny pieces of <b>finely</b> chopped fruit.
18. precede	Will the race <b>precede</b> the game or come after it?
19. proceed	The race will begin soon, so all runners should <b>proceed</b> to the track.

## Hard and Soft *c, g*

Day 2



Option 1

## Teach

Display the word *circuit*, underline each *c*, and pronounce the word. Explain: *When the letter e, i, or y comes after c, c has a soft sound: /s/. When a, o, u, or a consonant comes after c, c has a hard sound: /k/.* Have students repeat the word, exaggerating the sound of the letter *c*.

Display *gadget*, underline each *g*, and pronounce the word. Explain: *When the letter e, i, or y comes after g, g usually has a soft sound: /j/. When a, o, u, or a consonant comes after g, g usually has a hard sound: /g/.* Have students repeat the word, exaggerating the sound of the letter *g*.

## Prepare

- Arrange students in groups of three. Assign each group member five of the first 15 spelling words.
- Have each student write a sentence for each assigned word, leaving a blank in place of the word.

## Play a Game

- Have one student, the Reader, read aloud a sentence.
- Have the other two students, the Guessers, try to guess the word. The first one who correctly guesses and spells the word gets one point. If a Guesser says the wrong word or misspells the word, the Reader gets the point.
- Students take turns as Reader and Guesser.
- The winner is the student with the most points after all the players have read their sentences.

Apply Phonics and Word Analysis Skills  
Use Letter-Sound Correspondences to Read Multisyllabic Words

CC.4.Rfou.3  
CC.4.Rfou.3.a

## Letter Grid

Day 2



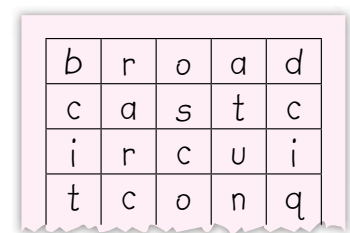
Option 2

## MATERIALS

scissors

## Prepare

Have pairs draw a grid, 5 squares across and 8 rows down. Tell partners to collaborate to write each letter of the following words in a square, leaving leftover squares blank: *broadcast*, *circuit*, *conquer*, *cylinder*, *device*.



## Play a Game

Have students cut out the letters, scramble them, and reassemble the words as fast as they can. Have pairs repeat with *advantage*, *engineer*, *genius*, *intelligent*.

Spell Grade-Appropriate Words

CC.4.L.2.d



Hard and Soft c, g

Day 3



Option 1

MATERIALS

index cards, 17 per group

Prepare

- Have groups of three students collaborate to write each of the first 15 spelling words and precede and proceed on separate cards.
- Have students spread the cards face up on a table.

Play a Game

- Have Student 1 make a soft or a hard sound, such as a gentle hum or a sharp rap on the table.
- While Student 3 looks away, have Student 2 choose one of the cards based on the sound: for example, genius for a soft sound.
- Have Student 2 read the word to Student 3, who spells the word and uses it in a sentence. If Student 3 makes an error, the other students help correct it.
- Once a word is spelled correctly, have students remove the card.
- Have students switch roles and continue until all the cards have been read and spelled.

Apply Phonics and Word Analysis Skills CC.4.Rfou.3  
 Use Letter-Sound Correspondences to Read Multisyllabic Words CC.4.Rfou.3.a

The Right Word

Day 4



Option 1

MATERIALS

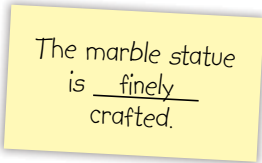
index cards, 4 per student • print or online dictionary, one per pair

Prepare

- Have pairs of students use a print or online dictionary to check the spelling and meaning of each Watch-Out Word.
- Have students work on their own to write a sentence for each Watch-Out Word on a separate card. Tell them to leave a blank line for the word.

Play a Game

- Have pairs switch cards and fill in the words.
- Tell students to check their work together. If one partner agrees that the other's word is correct, the student gets one point.
- Students may tie. If not, the student with more points wins.



Use Frequently Confused Words CC.4.L.1.g  
 Consult References CC.4.L.2.d

Comic Strips

Day 3



Option 2

Make a Drawing

- Have pairs of students use as many spelling words as possible to create one or more comic strips.
- Have students underline each spelling word.
- Invite students to display their comics.



Demonstrate Command of Spelling CC.4.L.2

Sound Sort

Day 4



Option 2

MATERIALS

4 different-colored highlighters • scissors • light-colored sheet of construction paper

Prepare

- Have students write the first 15 spelling words and precede and proceed on a sheet of paper. Have them write circuit and gadget twice.
- Have students highlight each of these elements in the words in a different color: soft c, hard c, soft g, hard g.
- For circuit and gadget, ask students to highlight both hard and soft c or g sounds in each word.
- Have students cut out each word.
- On construction paper, have students make a four-column chart with these headings: S in Sea, C in Car, J in Jam, G in Gum.

Practice

Have students read each word and look at the highlighted letters to place each word in the correct column on the chart.

Apply Phonics and Word Analysis Skills CC.4.Rfou.3

# Week 1 Daily Grammar

## OBJECTIVES

**Thematic Connection: Forces and Motion**

**Grammar: Use Adverbs and Adjectives**

## COMMON CORE STANDARDS

Edit Writing

Demonstrate Command of Grammar

Use Knowledge of Conventions

CC.4.W.5

CC.4.L.1

CC.4.L.3

## Day 1

### PROGRAM RESOURCES

Adverbs: eVisual 7.2

### MATERIALS

index cards, 12 per group • paper bags, 2 per group

## Teach the Rules

Use the suggestion on page T428 to introduce adverbs that modify verbs. Display eVisual 7.2.

### Adverbs

- An **adverb** modifies a verb. It can come before or after a verb and tells how, where, when, or how often/how much.
- Many, but not all, adverbs end in **-ly**.

He runs **slowly**. (how)

I **usually** jog. (when, how often)

The rocket tumbled **down**. (where)

[NGReach.com](http://NGReach.com) Adverbs: eVisual 7.2

## Play a Game

Have groups use the words below to play a game. Explain:

- Write each adverb from the box on a card. Put the cards in a bag.
- Players write three things they do each day on slips of paper.
- Take turns drawing a card and a slip from the bag. The player who draws acts out the action on the slip using the adverb on the card he or she drew. For example: catching a bus sneakily.
- Other group members guess the action and adverb. The game ends when players have used all the slips.

quietly      down      sneakily      joyfully      here      outside  
quickly      never      sleepily      carefully      up      proudly

## Differentiate

### SN Special Needs

**ISSUE** Students are unable to guess actions and adverbs.

**STRATEGY** Play a modified form of the game.

- Review the meanings of the adverbs in the word list.
- Then have a student tell you something he or she does each day. Write the response on a slip of paper.
- Place an appropriate adverb card at the end of the slip.
- Read aloud the slip and card; for example, *I eat breakfast proudly*. Then invite the student to act out the sentence.

## Day 2

### PROGRAM RESOURCES

More Adverbs: eVisual 7.6

Game: Practice Master PM7.3

### MATERIALS

timer

## Teach the Rules

Use the suggestion on page T431 to introduce adverbs that modify adjectives and other adverbs. Display eVisual 7.6.

### More Adverbs

- An **adverb** can make an **adjective** or another adverb stronger or weaker.

He is **extremely speedy**.

She dives **fairly well**.

[NGReach.com](http://NGReach.com) More Adverbs: eVisual 7.6

## Play a Game

Have partners use Practice Master PM7.3 to play a game.

## Differentiate

### BL Below Level

**ISSUE** Students cannot determine whether an adverb is modifying an adjective or another adverb.

**STRATEGY** Explain: *You can use the verb in a sentence as a clue to whether a word is an adjective or adverb.*

Display and read the following sentences aloud:

- The snake is **really quick**.
- The snake slithers **really quickly**.

Model identifying adjectives after the verb *is* and adverbs after action verbs. Then have students practice with these sentence frames several times.

The spider is \_\_\_\_\_ . (adverb, adjective)

The spider \_\_\_\_\_ . (action verb, adverb, adverb)

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar Game**

**How It's Done!**

Adjectives		Adverbs	
swift	tall	rapidly	extremely
slow	speedy	swiftly	fairly
rapid	sluggish	very	really

Choose adjectives and adverbs from the box to complete the sentences. Follow the order shown in parentheses. Use a variety of adjectives and adverbs!

- The rocket ship is \_\_\_\_\_ . (adverb, adjective)
- That falcon flies \_\_\_\_\_ . (adverb, adverb)
- A person can be \_\_\_\_\_ . (adverb, adjective)
- Snails are \_\_\_\_\_ . (adverb, adjective)
- The beam of light travels \_\_\_\_\_ . (adverb, adverb)
- Cheetahs are \_\_\_\_\_ . (adverb, adjective)
- This ostrich is \_\_\_\_\_ . (adverb, adjective)
- The meteoroid zooms \_\_\_\_\_ . (adverb, adverb)

Responses will vary, but students must place adjectives and adverbs correctly. Examples: The rocket ship is really speedy/That falcon flies extremely swiftly/A person can be very slow.

For use with TE, p. 1423m **PM7.3** Unit 7 | Moving Through Space

[NGReach.com](http://NGReach.com) Practice Master PM7.3





## Day 3

**PROGRAM RESOURCE**

Adverb vs. Adjective: eVisual 7.7

**MATERIALS**

timer • index cards, 10 per team

### Teach the Rules

Use the suggestion on page T439 to help students distinguish between adverbs and adjectives. Display eVisual 7.7.

#### Adverb vs. Adjective

- Make sure to use an adverb (not an adjective) to tell about a **verb**.
- Never use an adverb after a form of the **verb be**.

The skater **spins** ~~rapid~~ rapidly.  
The skater **is** rapidly.

[NGReach.com](http://NGReach.com) Adverb vs. Adjective: eVisual 7.7

### Play a Game

Arrange students into teams and distribute index cards. Display the word list. Allow three minutes for Step 3. Explain:

1. As a team, write each listed word on a separate card.
2. Sort your cards into two piles: adverbs and adjectives.
3. Choose three words from each pile. As a team, collaborate to write six sentences, one for each word. You will have four minutes. Exchange sentences with another team for scoring. Score one point for each adverb or adjective used correctly in a sentence. The team with more points wins.

**Word list:** kind, patiently, early, busy, sudden, sadly, happy, recently, calmly, last

### Differentiate

**AL Above Level**

**ISSUE** Students see that some words can be an adverb or an adjective.

**STRATEGY** Remind students: *An adverb tells how, where, or when about a verb. An adjective tells about a noun or pronoun.* Have students complete each sentence with the word in parentheses and tell whether it modifies a verb, noun, or pronoun in the sentence.

- The athlete is \_\_\_\_\_. The athlete runs \_\_\_\_\_. (*fast*)
- The \_\_\_\_\_ students got seats. We arrived \_\_\_\_\_. (*early*)
- The games are \_\_\_\_\_ Sunday. The girls play \_\_\_\_\_. (*next*)

## Day 4

**PROGRAM RESOURCE**

Grammar and Writing: Practice Master PM7.4

### Grammar and Writing

Distribute **Practice Master PM7.4**. Have students use editing and proofreading marks to correct errors with adverbs and adjectives.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar and Writing**

**Edit and Proofread**

Choose the editing and proofreading marks you need to correct the passage. Look for correct usage of:

- adverbs
- adjectives

Editing and Proofreading Marks	
^	Add.
↖	Take out.
→	Move to here.
,	Add comma.
.	Add period.

Ella stood nervously at the edge of the pool. Every muscle in her body was tense as she waited for the signal to begin. "Go!" the coach yelled suddenly. She sprang instant into the blue water. Her arms slashed up. They slashed down. They were like a whirling windmill slicing through the water. Freestyle was Ella's best stroke, and she was confidently as she sped through the water. The turn was coming up. She swam energetically, got to the wall, and pushed off hard. She heard the loud screams of the crowd, but all her concentration was focused on swimming as fast as she could. The race was near over. She had a few yards to go. Finally she slapped her hand on the edge of the pool. A roar rose quick up from the crowd. She had won, she realized excitedly.

For use with TE 2, T42in. PM7.4 Unit 7 | Moving Through Space

[NGReach.com](http://NGReach.com) Practice Master PM7.4

## Day 5

**PROGRAM RESOURCES**

Writing, Revising, and Editing Test: Assessment Masters A7.8–A7.10

### Review and Assess

Display the sentences below. Have partners underline the adverbs. Tell each pair to make a 3-column chart with these headings: *Verb, Adverb, Adjective*. Have students categorize the adverbs in the sentences by the part of speech each modifies and then list the words in the correct column on the chart.


1. The sun sparkled brightly. (*brightly, verb*)
2. The bike is really sleek. (*really, adjective*)
3. She spoke very sharply. (*very, adverb; sharply, verb*)
4. He walked quite slowly. (*quite, adverb; slowly, verb*)

Administer the **Writing, Revising, and Editing Test**.

# Week 1 Daily Writing Skills

## OBJECTIVE

**Thematic Connection: Forces and Motion**

 **Identify Big Concepts and Integrate Information from Multiple Sources**

## SUGGESTED PACING

DAY 1 Teach the Skill  
DAY 2–4 Daily Practice Options  
DAY 5 Review and Assess

### Integrate Concepts

Day 1



#### PROGRAM RESOURCES

**Integrating Information: eVisual 7.3**  
**Big Concept Paragraph: eVisual 7.4**

### Teach the Skill

Review that when you write about a topic, you gather information and take notes. Explain that you then must combine, or integrate, the information and identify the main ideas, or big concepts.

Say: *Integrating information isn't that different from the way a reader synthesizes information about a topic during reading. Great writers always integrate ideas to make it easy for readers to understand their text.* Then display **eVisual 7.3**.

#### Integrating Information

Scientists have now discovered that the rate of change in the size of Earth is only 0.004 inches (0.1 millimeters) a year.

An international group of scientists discovered that Earth's size is changing an average of 0.004 inches a year. That's about the thickness of a human hair.

 **NGReach.com** Integrating Information: eVisual 7.3



**INTERACTIVE WHITEBOARD TIP:** Underline *change, size, and Earth* on each card.

Model the process of integrating information:

- *First, I review the note cards to see which ideas are connected. I realize that both note cards tell how the size of Earth is changing—only a tiny bit.*
- *Next, I need to join these ideas together in a paragraph, using transitions and stating the big concept, or main idea.* Display **eVisual 7.4**.

#### Big Concept Paragraph

The size of Earth is not changing, at least in any major way. How do we know? A team of scientists from around the world has recently used new ways of measuring the size of Earth. They found that Earth changes only about 0.004 inches, or 0.1 millimeters, a year. That's only about the thickness of a human hair!

 **NGReach.com** Big Concept Paragraph: eVisual 7.4



**INTERACTIVE WHITEBOARD TIP:** Circle the first sentence.

Have students identify the big concept, or main idea. Point out how the writer integrated ideas from the two sources. Then ask: *How might a visual of a human hair, maybe next to a ruler, help readers understand the big concept?*

### Integrate Information

Day 2



Option 1

#### PROGRAM RESOURCES

**Digital Library: Language Building Picture Cards E86 and E89**

### Practice

Display the image of the girl at space camp and the image of zero-gravity training. Have partners discuss what they see, take notes, put the information and ideas together, and write a sentence about how people in space work and move. (Possible sentence: People who work in space must wear special space suits and learn to move in zero gravity.)

If students need support, display these questions for partners to answer and discuss.

1. What is the girl wearing? What is she doing? How is she moving?
2. What are the men wearing? Where are they? How are they moving?

Invite partners to share their sentences with another pair of students.

### Integrate Information

Day 2



Option 2

#### PROGRAM RESOURCES

**Nonfiction books and Explorer Books for Unit 7**

### Introduce

Have partners take out two small-group books or Explorer Books they have read or are reading related to space or planets.

### Practice

Have partners decide on a topic that is covered in both books. Have them read and take notes from each book.

Tell students to combine the information and write a sentence or two, introducing their topic and stating a main idea, or concept, based on their notes and information from the two books.

Invite partners to share and compare their writing with another pair of students.



## COMMON CORE STANDARDS

Integrate Information from Two Texts  
Write Informative/Explanatory Text to  
Examine a Topic and to Convey Information

CC.4.Rinf.9  
CC.4.W.2

Group Related Information in Paragraphs  
and Sections, and Include Illustrations and Multimedia  
Gather Information, Take Notes, and Categorize Evidence

CC.4.W.2.a  
CC.4.W.8


### Group Related Information Day 3 Option 1

#### PROGRAM RESOURCES

Cheetah Note Cards: eVisual 7.8


#### Introduce

Display eVisual 7.8 and explain that a writer took these notes while gathering information about cheetahs.



### Cheetah Note Cards

The cheetah, the fastest mammal on land, can reach speeds of 60 to 70 miles an hour. Its keen eyesight helps it find prey during the day.	Cheetahs eat small- to medium-sized animals, such as hares, calves, and gazelles.
When the cheetah sights its prey, it creeps up to it carefully. Its coat makes it hard to see, as it blends in with the tall grasses of the plains.	

[NGReach.com](http://NGReach.com) Cheetah Note Cards: eVisual 7.8  **INTERACTIVE WHITEBOARD TIP:** Circle prey in two of the note cards.

#### Practice

Have students examine the note cards and write sentences that integrate information from the note cards.

### Illustrate a Research Topic Day 3 Option 2

#### MATERIALS

science texts • encyclopedias • articles from reliable online sources • other materials about ostriches, cheetahs, and peregrine falcons

#### Introduce

Point out the facts about animal speeds shown in the graph and in the text on **Anthology** pages 434–435.

#### Practice

Have each small group choose one animal shown in the graph and read additional information about it.

Have students take notes, look for ideas that could be linked together well in a paragraph, decide on a main idea, and write a paragraph about it. Encourage students to describe or design a visual that supports the text.

### Write Text with Multimedia Day 4

#### MATERIALS

science texts • encyclopedias • articles from reliable online sources • other materials about ostriches, cheetahs, and peregrine falcons

#### Practice

Have students take out the sentences or paragraphs they wrote on Day 3. Have them write a new paragraph about the topic. If necessary, provide time for them to consult more references to find additional information.

Make sure students combine related information and identify main ideas, or big concepts.

Encourage students to display photographs, show illustrations, use charts or graphs, or even present clips from DVDs or videos to support concepts and add interest. Invite students to present their informational pieces in small groups.

### Review and Assess Day 5

#### PROGRAM RESOURCES

Writing, Revising, and Editing Test: Assessment Masters A7.8–A7.10

#### Review the Skill

Have students explain how to gather and integrate information in order to write about a topic. Provide a word bank and cloze paragraph. Students choose words from the word bank to complete the sentences.

diagrams	topic	paragraphs
notes	photographs	DVD
big concept	resources	

#### Word Bank

First, gather information from different (resources), read, and take (notes). Next, group related information in (paragraphs). Then, introduce the (topic) and identify the main idea, or (big concept), in each paragraph. Finally, add visuals, such as (diagrams), (photographs), or clips from a (DVD) to support the big concepts.

 Administer the **Writing, Revising, and Editing Test**.

# Day 1 Introduce Unit 7

## OBJECTIVES

**Thematic Connection: Forces and Motion**

**Preview Content by Paraphrasing Information**

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

**Unit Concept Map: Practice Master PM7.1**

**Family Newsletter 7**

### TECHNOLOGY ONLY

**Unit 7 Build Background Interactive**

## MATERIALS

colored pencils • markers or crayons

## WARM-UP

Direct students' attention to the picture of the astronaut on **Anthology** pages 424–425. Ask students to explain what is happening in the photo. Ask: *What do you think it is like to explore space?* (Possible responses: quiet, scary, amazing)

## Science Background

### 1 Big Question **Anthology** page 424

Read aloud the Big Question. Explain to students that this unit is about space. Students will read about different types of objects in space and how they move. They will also read about ways that scientists explore space in order to answer the question. Distribute **Family Newsletter 7**.

### 2 Share What You Know **Anthology** page 425

Activate prior knowledge. Ask: *What color is the night sky? What colors are the moon, stars, and planets?* Encourage students to use their imaginations as they try to picture specific objects. Display **Student eEdition** page 425, review the instructions, and distribute materials. Post students' drawings and invite students to share their ideas about travel beyond Earth.

### 3 Build Background Interactive

Display and introduce the interactive: *We'll learn about the ways objects move and how their movement is **measured**.* Encourage students to participate actively as they view the interactive. Then discuss what they learned.

- *What are some things that move fast? How fast do they move?*
- *What are some forces that affect **speed** and movement?*
- *How is movement in space different from movement on Earth?*

**NATIONAL GEOGRAPHIC Reach NEWSLETTER**  
Level E | Unit 7

**Dear Family Member,**  
"What does it take to explore space?" That is the big question we are asking in this unit. To answer it, we are reading, writing, and talking about solving problems in order to study outer space. Be a part of our exploration! With your student, read the New Words on the next page. Then follow these directions.

**Directions:**

1. Talk together about what you can see in the clear night sky. Share what you know. If possible, observe the night sky together. Try to use some of the New Words in your discussion.
2. In the box below, draw a picture of what you see in the clear night sky where you live. Then write about it on the lines at right.
3. Remind your student to bring the completed drawing and notes to class.

**What We're Reading**

**"What's Faster Than a Speeding Cheetah?"**  
by Robert E. Wells  
The author of this article profiles fast things.

**"Building for Space Travel"**  
by Anastasia Suen  
This report describes a space station designed by Explorer Constance Adams for future astronauts on their way to Mars.

**"The Moon Over Star"**  
by Dianna Hutts Aston  
In this story, a girl dreams of becoming an astronaut.

**"The First Person on the Moon"**  
This biography highlights Neil Armstrong's greatest achievement.

And more!

Family Newsletter 7 | English

**NGReach.com** Family Newsletter 7  
in seven languages

## COMMON CORE STANDARDS

### Speaking and Listening

Draw on Information to Explore Ideas CC.4.SL.1.a  
Paraphrase Visual, Quantitative, and Oral Information CC.4.SL.2



**STUDENT TECHNOLOGY**

- Student eEdition
- Video
- Resources

[NGReach.com](http://NGReach.com)

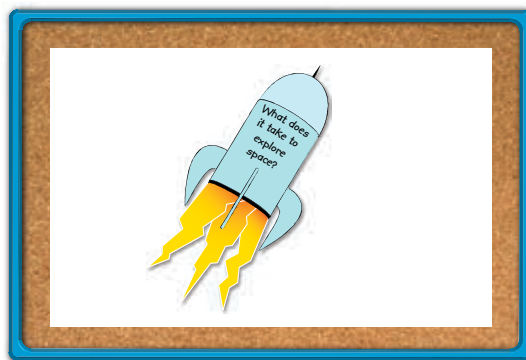
**Anthology**  
pages 424–425

## Unit Projects

### 4 Introduce the Unit Concept Map

Review the Big Question. Encourage students to browse through the pages of the unit, and guide them in making predictions: *What do you think you will learn about exploring space? What pictures or words helped you make that prediction?* Have pairs compare pages they find interesting.

Display the concept map using **Student eEdition** page 488 or on a bulletin board in the classroom. Explain: *As you go through this unit, you will be organizing your answers to the Big Question in the flames on this concept map.* Distribute **Practice Master PM7.1** and model how to fill in the concept map. Have students add any ideas they may have after using the Build Background interactive.



**Concept Map**

### 5 Preview Unit Projects

Point out the projects using **Student eEdition** page 489. Have students review the project options and encourage them to begin thinking about which project to choose.

## Weekly Writing

Gather students' writing throughout the week:

- ✓ Daily Writing Skills Practice (T423o–T423p)
- ✓ Power Writing (T426, T428a, T432, T440, T443a)
- ✓ Writing (T428, T430–T431, T439, T443, T444)
- ✓ Research Project (T445a–T445b)

Name \_\_\_\_\_ Date \_\_\_\_\_

**Unit Concept Map**

**Moving Through Space**  
Make a concept map with the answers to the Big Question: What does it take to explore space?

brave astronauts  
special equipment  
very fast speed

What does it take to explore space?

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**PM7.1** Unit 7 | Moving Through Space

### OBJECTIVES

#### Thematic Connection: Forces and Motion

- ✔ Use Domain-Specific Words
- ✔ Explain Text Structure: Compare and Contrast

### PROGRAM RESOURCES

#### PRINT & TECHNOLOGY

- Unit Concept Map: Practice Master PM7.1
- Comparison Chart: Practice Master PM7.2
- Family Newsletter 7

#### TECHNOLOGY ONLY

- Sing with Me MP3
- Digital Library: Key Word Images
- My Vocabulary Notebook
- Read Aloud: eVisual 7.1

### MATERIALS

timer • large notecards

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *measure*.

For **Writing Routine 1**, see page BP47.

### COMMON CORE STANDARDS

#### Reading

- |   |             |
|---|-------------|
| Determine Meanings of Words and Phrases     | CC.4.Rlit.4 |
| Determine Meanings of Domain-Specific Words | CC.4.Rinf.4 |
| Describe Text Structure                     | CC.4.Rinf.5 |
| Read with Fluency to Support Comprehension  | CC.4.Rfou.4 |

#### Writing

- |   |           |
|---|-----------|
| Write Over Shorter Time for Specific Purposes | CC.4.W.10 |
|---|-----------|

#### Language and Vocabulary

- |  |          |
|--|----------|
| Acquire and Use Academic and Domain-Specific Words | CC.4.L.6 |
|--|----------|

## Academic Talk

### 1 Ask and Answer Questions Anthology page 426

Display Student eEdition page 426 and read aloud the introduction. Then play the **Sing with Me Language Song**: “Star Search.”

Review how to ask and answer questions:

- *When you are in a conversation, listen carefully to what each person says.*
- *If you do not understand what someone says or want to know more, ask a question.*
- *If someone asks you a question, listen carefully to give the right kind of answer.*

Review the question words: *who, what, when, where, why, how*. Have partners work together to create three questions about objects in space. Give examples: *What causes the moon to change its shape? Why are some stars brighter than others?*

Have one set of partners restart the group discussion by asking a question about space. Encourage others to extend the conversation with more questions and answers. If students ask questions that no one can answer, discuss what they could do to find the answer.

## Science Vocabulary

### 2 Key Words ✔ Anthology page 427

Explain and model using **Vocabulary Routine 1** and the images on **Student eEdition** page 427 to learn the Key Words.

- **Pronounce the word** and point to the image: **height**.
- **Rate the word**. Hold up your fingers to show how well you know the word (1 = very well; 2 = a little; 3 = not at all). Tell what you know about this word.
- **Define the word**: **Height** is how tall someone or something is.
- **Elaborate**. Relate to experience: My **height** now is greater than it was last year.

For **Vocabulary Routine 1**, see page BP34.

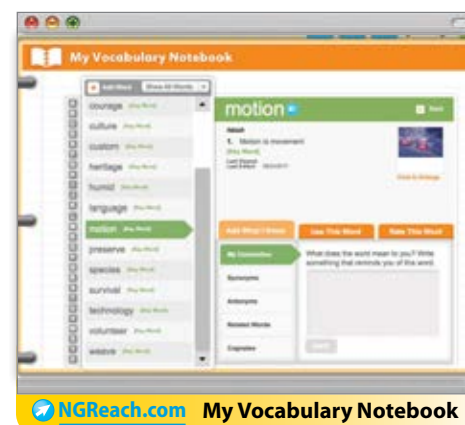
For more images of the Key Words, use the **Digital Library**.

Have partners take turns repeating the routine for each word from **Student eEdition** page 427 to learn the Key Words. Have each student add the words to **My Vocabulary Notebook**.

See **Differentiate**

#### Key Words

accelerate • height  
measure • motion • speed





## Ask and Answer Questions

Listen to the dialogue between Binh and Sofia. Then use **Language Frames** to ask and answer questions with a partner. Talk about objects in space that you wonder about.

### Language Frames

- When is \_\_\_\_\_?
- It's \_\_\_\_\_.
- Where are \_\_\_\_\_?
- They're \_\_\_\_\_.

### Dialogue ((MP3))

426

## Key Words

Look at the pictures. Use **Key Words** and other words to talk about how **motion** makes sports exciting.

### Key Words

- accelerate
- height
- measure
- motion
- speed

### Exciting Sports Moments



Listen to the engines roar! The cars **accelerate** quickly to well over 100 miles per hour!



Look at the **height** of that player's jump! He makes touching the rim look easy!



Look at her strong legs! This track star can move at **top speed**.



The fans wait for the officials to **measure**. How far did a player move the ball?

### Talk Together

What are some ways to measure how we move through space? Try to use **Language Frames** from page 426 and **Key Words** to ask and answer questions about this topic with a partner.

427

### STUDENT TECHNOLOGY



Student eEdition



Sing with Me



My Vocabulary Notebook



Resources

NGReach.com

Anthology  
pages 426–427

### 3 Talk Together Anthology page 427

Explain: *The word space does not always mean outer space. Here it means the area around us.* Have partners ask and answer questions about measuring an athlete's movements. Their questions and answers should include question words and Key Words, such as: *When do runners **accelerate** the most during a race?* (at the beginning) Remind students they can use the Language Frames on page 426.

## Check & Reteach

### OBJECTIVE: Use Domain-Specific Words ✓

As students ask and answer questions about measuring movement, listen for correct usage of Key Words.

If students use words incorrectly, provide sentence frames for them to complete orally:

- We can use a meter stick to \_\_\_\_\_ the length of a baseball bat. (**measure**)
- The runner with the greatest \_\_\_\_\_ will win the race. (**speed**)
- If a car is moving from one place to another, it is in \_\_\_\_\_. (**motion**)

## Best Practices

**Encourage Elaboration** As students talk, use general prompts:

- *What do you mean by that?*
- *Can you give some details to explain what you mean?*

## Differentiate

### EL English Learners

**ISSUE** Students lack English proficiency to understand definitions.

**STRATEGY** Provide translations of the Key Words. Access **Family Newsletter 7** for translations in seven languages. Use cognates for Spanish speakers:

*accelerate/acelerar      motion/moción*

### SN Special Needs

**ISSUE** Students do not find personal meaning in learning new vocabulary.

**STRATEGY** Have students choose three Key Words that have a connection to something in their lives. Have students use the Key Words in sentences about themselves.

## Wordbench

comparison  
 [kum-par-i-sun]  
 compare      comparison  
 compare=to find ways things are the same  
 and different  
 com=with    pare=arrange    -son= act or process  
 Meaning: showing how things  
 are alike and different

## Fluency

**Model Intonation** Explain the concept: *Intonation is the rise and fall in the pitch or tone of your voice as you read aloud.* Model correct intonation with “Earth vs. Mars.” Then have partners practice intonation by reading the captions on **Anthology** page 428.

## Comprehension

4 **Compare and Contrast**  **Anthology** page 428

Read aloud the introduction and information about Earth and Mars on **Anthology** page 428. Use a Wordbench to teach the term **comparison**. Then display **eVisual 7.1** and read aloud “Earth vs. Mars.” Have students listen for ways that the report compares and contrasts the two planets.



## Read Aloud

Science Essay

## Earth vs. Mars

Both Earth and Mars are planets in our solar system, and they are similar in many ways. Both have a solid, rocky surface, both have frozen ice caps on each of their ends, and both planets have changing seasons. Also, Earth and Mars rotate at about the same **speed**. It takes Earth 24 hours to rotate once, and it takes Mars only 37 minutes longer.

Earth and Mars also have many major differences. Earth has a diameter of 13,000 kilometers, while Mars is much smaller. It has a diameter of only 6,800 kilometers. Mars is also much farther from the sun than Earth. Earth is 150 million kilometers from the sun, while Mars is 228 million kilometers from the sun.

The two planets also look very different. Mars is red and orange, but Earth is blue and green, and has many clouds. Earth looks the way it does because it has large amounts of water in its oceans, lakes, and skies. This water helps Earth support life. Mars has very little water and has no life at all.

 [NGReach.com](http://NGReach.com) Read Aloud: eVisual 7.1



**INTERACTIVE WHITEBOARD TIP:** Underline similarities in blue and differences in red.

5 **Map and Talk** **Anthology** page 428

After students read how to make a comparison chart, model how to use the chart. Ask: *What do the diameters on the chart tell us about the size of the planets?* (Earth is bigger.) Have students make more comparisons based on the next two columns. Have students extend the chart by adding information from the **Read Aloud**.

6 **Talk Together** **Anthology** page 428

Have students use **Practice Master PM7.2** to make a comparison chart that compares aspects of two sports they know.

## Check &amp; Reteach

**OBJECTIVE:** Explain Text Structure: Compare and Contrast 

Have volunteers read aloud their comparison charts while you monitor their ability to compare and contrast.

If students have difficulty comparing and contrasting, ask guiding questions to focus on specific characteristics, such as: *Where does a soccer game take place? Where does a football game take place? How are the fields alike? How are they different?*





## Compare and Contrast

When you **compare** things, you say how they are similar, or alike.  
When you **contrast** them, you say how they are different.

Look at the pictures of Earth and Mars. Read the text.



Earth has a diameter of 13,000 kilometers. It is 150 million kilometers from the sun.



Mars has a diameter of 6,800 kilometers. It is 228 million kilometers from the sun.

### Map and Talk

You can use a comparison chart to show how two things are alike and different. Here's how to make one.

#### Comparison Chart

Planet	Diameter	Distance from Sun	Characteristics
Earth	13,000 Kilometers	150 million Kilometers	looks blue and green has living things
Mars	6,800 Kilometers	228 million Kilometers	looks red has no living things

Write headings here.

Give information in these rows.

#### Talk Together

Look back at page 427. Choose another sport that requires speed and strength. Compare it to one of the sports shown. Make a comparison chart with a partner.

428

Anthology page 428

# Writing

## 7 Write a Comparison

Introduce: *Now you will write a paragraph that compares and contrasts the two sports you discussed in **Talk Together**.* Model the process.

### Think Aloud

*First, I tell what sports I'll compare and how they're alike.*

*Then I will write about how they are different.*

### Write

Running and swimming are two great sports. They strengthen the heart, lungs, and muscles.

You can run almost anywhere. You need a pool, lake, or ocean to swim.

For **Writing Routine 2**, see page BP48.

Have students write paragraphs, using the comparison chart they made in **Talk Together**. After they are done, have them share their paragraphs with their partners. Then have them add the paragraphs to their Weekly Writing folders.

**WRAP-UP** Ask students to think about how different animals walk, run, or swim, and then make lists noting similarities and differences.

## Daily Language Arts

### Daily Spelling and Word Work ✓

Pretest page T423k

### Daily Grammar ✓

Discuss the word *much* in the **Read Aloud**. Then use page T423m to teach adverbs that signal *how much* and *how*.

### Daily Writing Skills ✓

Point out the first sentence in the **Read Aloud**. Then use page T423o to teach how to identify a big concept based on multiple sources of information.

Name \_\_\_\_\_ Date \_\_\_\_\_

#### Comparison Chart

### Comparing Sports

Make a comparison chart to compare one of the sports on page 427 with another sport.

#### Comparison Chart

Sport	Where	Goal	Measure Speed
swimming	in a pool, in water	to be the first one to finish the race	stopwatch
Possible response: running	Possible response: at a track, on land	Possible response: to be the first one to finish the race	Possible response: stopwatch

Use your comparison chart to tell your partner about the two sports.

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For use with TE p. T427a

PM7.2

Unit 7 | Moving Through Space

NGReach.com Practice Master PM7.2

## OBJECTIVES

**Thematic Connection: Forces and Motion**

- Use Academic Words
- Draw Conclusions to Comprehend Text

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

Unit Concept Map: Practice Master PM7.1

Family Newsletter 7

### TECHNOLOGY ONLY

Digital Library: Key Word Images

My Vocabulary Notebook

## MATERIALS

timer

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *speed*.

For **Writing Routine 1**, see page BP47.

## COMMON CORE STANDARDS

### Reading

Determine Meanings of Words and Phrases	CC.4.Rlit.4
Determine Meanings of Academic Words	CC.4.Rinf.4
Read and Comprehend Informational Texts	CC.4.Rinf.10
Read with Fluency to Support Comprehension	CC.4.Rfou.4

### Writing

Write Over Shorter Time for Specific Tasks	CC.4.W.10
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### Speaking and Listening

Differentiate Contexts for Formal and Informal English	CC.4.SL.6
--	-----------

### Language and Vocabulary

Acquire and Use Academic Words	CC.4.L.6
--------------------------------	----------

## WARM-UP

Explain: *Astronomers have learned a lot about space with telescopes and other tools, but many questions remain unanswered.* Have students suggest questions that might still be unanswered, such as “How were planets formed?” Ask students to use formal language when they ask their questions.

## Academic Talk

### 1 Explain a Concept

Review: *When you discuss a topic, use formal and informal language appropriately.*

Have students compare the following sentences.

- Saturn has really cool rings made of ice and other stuff.
- Saturn is surrounded by a system of rings made of particles of ice and dust.

Ask: *Which sentence is an example of informal language?* (sentence 1) Explain: *I use informal language to talk to my friends and family.* Ask students to name other situations when it is appropriate to use informal language. Then repeat the process to identify and review formal language with the second sentence.

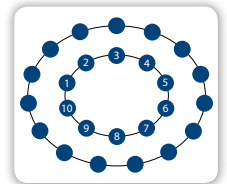
Prompt: *Think of a sport that you enjoy playing or watching.*

Have students use informal language to describe that sport.

Use a **Fishbowl**:

- Students on the inside choose sports they enjoy and tell about them.
- Students on the outside listen for informal language.
- Groups reverse positions and continue with different sports.

For **Fishbowl**, see page BP45.



Fishbowl

## Academic Vocabulary

### 2 More Key Words Anthology page 429

Introduce: *Let's learn some more words to help us communicate effectively.* Explain and model using

**Vocabulary Routine 1** and the images on **Student eEdition** page 429 to learn the Key Words.

- **Pronounce the word** and point to its image: **average**.
- **Rate the word.** Hold up your fingers to show how well you know the word (1 = very well; 2 = a little; 3 = not at all). Tell what you know about this word.
- **Define the word:** An **average** is an amount that is usual for a group.
- **Elaborate:** I read an **average** of two books a week.

For **Vocabulary Routine 1**, see page BP34.

For more images of the Key Words, use the **Digital Library**.

### Key Words

average · distance · rate  
scale · solve

## More Key Words

Use these words to talk about "What's Faster than a Speeding Cheetah?" and "Building for Space Travel."

### average

(ā-vu-rĭj) *noun*



An **average** is an amount that is usual for a group. Bears have an **average** of two cubs.

### distance

(dis-tuns) *noun*



**Distance** is the amount of space between things. Today, we can fly a long **distance** very quickly.

### rate

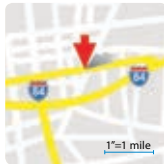
(rāt) *noun*



The **rate** of an action is its speed. Turtles move at a slow **rate**.

### scale

(scāl) *noun*



A **scale** gives size comparisons. The **scale** of this map shows that 1 inch is equal to 1 mile.

### solve

(solv) *verb*



To **solve** a problem means to figure it out. When you **solve** a puzzle, it's done.

### Talk Together

Work with a partner. For each **Key Word**, write a sentence that shows what the word means.

I am going to **solve** a math problem.

Add words to My Vocabulary Notebook.  
NGReach.com

## STUDENT TECHNOLOGY



Student eEdition



My Vocabulary Notebook



Resources

NGReach.com

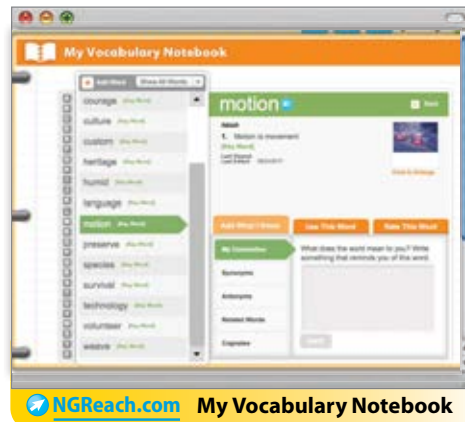
Anthology page 429

Have partners take turns repeating the routine for each word from **Anthology** page 429. Then have each student add the words to **My Vocabulary Notebook**.

See **Differentiate**

### 3 Talk Together Anthology page 429

Have partners take turns starting sentences and then finishing them together. Ask volunteers to share one sentence with the class.



## Check & Reteach

**OBJECTIVE:** Use Academic Words ✓

As partners discuss and write sentences, listen for correct usage of the Key Words. If students use words incorrectly, ask questions about the words. Provide examples:

- *What word stands for "the amount of space between two things"?* (**distance**)
- *What can you use to find out how much an inch equals on a map?* (**scale**)
- *What do you do when you find the answer to a problem?* (**solve**)

## Differentiate

### EL English Learners

**ISSUE** Students do not understand definitions.

**STRATEGY** Provide translations of the Key Words. Access **Family Newsletter 7** for translations in seven languages. Use cognates for Spanish speakers:

*distance/distancia*      *scale/escala*  
*solve/resolver*

### AL Above Level

**ISSUE** Students need more challenge in writing sentences with Key Words.


**STRATEGY** Have students create sentences that correctly use two or more Key Words. They can read aloud sentences to a partner, omitting the Key Words, to see whether the partner can identify the vocabulary based on context clues in the sentence.

### Window Organizer

conclusion

When you draw a conclusion, you make a decision based on facts

I see dark clouds.  
I see lightning.




These clues tell me that it is going to rain.

### Window Organizer

synthesize

When you synthesize you put ideas together to come up with something new.

I play the guitar.  
My sister plays the drums.



Together we make beautiful music.

## Fluency

**Practice Intonation** As partners read aloud “All About All About Io,” circulate and listen for correct intonation.

## Comprehension

### 4 Synthesize Anthology pages 430–431

Use two Window organizers to teach the terms **conclusion** and **synthesize**. Project **Student eEdition** page 430 and read aloud the introduction. Ask: *What are the kids doing?* Point out details from the art as you model drawing a conclusion:

- *I see that the kids are dressed warmly and that Binh has a flashlight.*
- *I also see a telescope, an astronomy book, and a notebook about stars.*
- *I connect ideas and **conclude** that it’s night, and they are there to look at the stars.*

### 5 Talk Together Anthology page 431

Read aloud the instructions on **Anthology** page 431. Chorally read the first paragraph of “All About All About Io” with students. Then have a volunteer read aloud the sample conclusion.

Ask: *What are some details in the text that support the **conclusion**?* (It is full of interesting facts about Jupiter.) *How does drawing **conclusions** help you know what to expect from Binh’s report?* (It helps me know what the writing will be like.) Have partners read the rest of the book report and connect the details to draw their own conclusions. Circulate and monitor their conversations.

## Check & Reteach

**OBJECTIVE:** Draw Conclusions to Comprehend Text 

Ask: *What **conclusion** can you make about the book All About Io when you **synthesize** the details from Binh’s book report?* (Possible response: Io is an important topic in the book.)

If students have difficulty, remind them that *Io* is in the title. Explain that this detail helps you draw the conclusion that *Io* might be important. Have students point out details that support this conclusion. Ask: *What details in the third paragraph give information about Io?*

## Writing

### 6 Write a Conclusion

Introduce: *Let’s write a paragraph to draw a **conclusion** about Binh’s book report.*

Think Aloud	Write
<i>First, I write about an important detail in the text.</i>	I read that Jupiter has 63 moons.
<i>Next, I tell about another related detail.</i>	I also read that the moons got close to Jupiter because it has a lot of gravity.
<i>Finally, I write my conclusion.</i>	I connect the ideas and conclude that the more mass a planet has, the more gravity and moons it has.

For **Writing Routine 2**, see page BP48.



## Learn to Synthesize

Look at the picture. What do Binh and Sofia plan to do? Look for details. Put the information together to **draw a conclusion**, or decide, what they will do.



You also **draw conclusions** when you read.

### How to Draw Conclusions

1. Notice an important idea in the text.
2. Look for another idea that you think is important.
3. How do the ideas go with one another? Put the ideas together to draw a conclusion.

I read \_\_\_\_\_.

I also read \_\_\_\_\_.

I connect the ideas and conclude \_\_\_\_\_.

### Language Frames

- I read \_\_\_\_\_.
- I also read \_\_\_\_\_.
- I connect the ideas and conclude \_\_\_\_\_.

### Talk Together

Read Binh's book report. Read the sample conclusion. Draw your own conclusions. Then use **Language Frames** to tell a partner about them.

### Book Report

#### All About All About Io

by Binh Pham

Do you want to know more about the crazy world of outer space? If so, you should read *All About Io* by Jin Park. It is full of interesting facts about Jupiter.

I learned that Jupiter has 63 moons! A lot of them started out as asteroids. Then they got too close to Jupiter, which has a huge mass. That means it also has a lot of gravity. Think about the difference in **scale**: Jupiter is huge, the asteroids are tiny. They got trapped by Jupiter's gravity. Now they orbit Jupiter.

At first, the title of the book confused me. Reading it **solved** the puzzle for me. Io is one of Jupiter's largest moons. It is covered with volcanoes that erupt. The explosions color the moon with yellows and oranges, but I wouldn't want to live there.

The book gives lots of information. It tells how to estimate how much you would weigh on Jupiter. I also learned that Jupiter rotates at a faster **rate** than any other planet in our solar system. On **average**, a day on Jupiter lasts just 9 hours and 55 minutes long. Getting to Jupiter would take a very long time, even for the fastest modern space ship. The **distance** between the planets is about 390 million miles.

This book was so much fun to read. I will look for more books by Park when I go to the library.

#### Sample Conclusion

"I read that this book has a lot of facts. I also read that it is about the real planet Jupiter. I connect the ideas and conclude the book is nonfiction. It does not tell a story the author made up."

◀ = A good place to draw a conclusion

Anthology  
pages 430–431

Have students synthesize two favorite details in "All About All About Io" and write a conclusion. Remind students that the details they find must support the conclusion. Have students add their writing to their Weekly Writing folders.

See **Differentiate**

## Daily Language Arts

### Daily Spelling and Word Work ✓

Practice page T423k

### Daily Grammar ✓

On **Anthology** page 431, point out the phrase *very long time*, and explain that *very* is an adverb that makes *long* stronger. Then use page T423m to teach how to use adverbs to make other words stronger.

### Daily Writing Skills ✓

Ask students what sources they might use for more information about Jupiter's moons. Then use page T423o to practice integrating information from different sources.

## WRAP-UP

Have groups of students think about what they learned today about space. Ask students to think about what it took for scientists to get that information. Students can add their ideas to their unit concept maps.

## Differentiate

### BL Below Level

**ISSUE** Students draw many conclusions but not all of them are supported by the text.

**STRATEGY** Have students use the Language Frames on page 431 to draw their conclusions based on two or more specific details from the text.

### OBJECTIVES

#### Thematic Connection: Forces and Motion

- ✓ Explain Text Structure: Compare and Contrast
- ✓ Draw Conclusions to Comprehend Text

### PROGRAM RESOURCES

#### TECHNOLOGY ONLY

My Vocabulary Notebook

Read with Me: Selection Recordings: MP3 or CD 3  
Tracks 1–2

Comprehension Coach

### MATERIALS

timer

### Power Writing

Have students write as much as they can as well as they can in one minute about ways people use graphs.

For **Writing Routine 1**, see page BP47.

### COMMON CORE STANDARDS

#### Reading

Refer to Details and Examples When Explaining Text	CC.4.Rinf.1
Interpret Information Presented Visually and Quantitatively	CC.4.Rinf.7
Read with Fluency to Support Comprehension	CC.4.Rfou.4
Read with Purpose and Understanding	CC.4.Rfou.4.a
Read Orally with Expression on Successive Readings	CC.4.Rfou.4.b

#### Writing


Draw Evidence from Texts	CC.4.W.9
Apply Grade 4 Reading Standards	CC.4.W.9.b
Write Over Shorter Time for Specific Audiences	CC.4.W.10

#### Speaking and Listening

Paraphrase Visual and Quantitative Information	CC.4.SL.2
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#### Language and Vocabulary

Acquire and Use Academic and Domain-Specific Words	CC.4.L.6
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## WARM-UP

Have student pairs make a list of things that move very quickly, and put their lists in order from slowest to fastest. Volunteers can share their lists with the class and use them to practice drawing a conclusion.

## Vocabulary Practice

### 1 Expand Word Knowledge ✓

Students will practice Key Words by creating Three-Quarter Book Visual Organizers. Use **Vocabulary Routine 2** to model how to make an organizer for the word **accelerate**.

- Write the word on the cover of the organizer.
- Write a definition for the word on the flap inside the organizer.
- Draw a picture illustrating the word on the left inside page.
- Write an example of the word on the right inside page.

For **Vocabulary Routine 2**, see page BP36.

#### Key Words

accelerate · average · comparison  
 conclusion · distance · graph  
 height · measure · motion  
 rate · scale · solve  
 speed · synthesize

Assign a Key Word to each set of partners. After they complete their organizers, have them add the words and examples to **My Vocabulary Notebook**. Then display the organizers in the classroom.

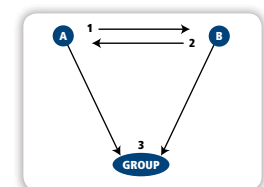
## Academic Talk

### 2 Preview and Predict

**REVIEW** Remind students: *You can preview and predict what a text will be about by reading the title and section headings and looking at the photos and illustrations.* Point out the graph on **Anthology** page 435 and explain: **Graphs** use pictures to show information about number facts. You can also preview graphs to get an idea of what a selection will be about.

Display the Key Words *measure, comparison, and graph*. Have students use a **Three-Step Interview** to preview the title, photo, and graph on **Anthology** pages 432–433. Remind students to use the Key Words as they state their predictions about what the article will be about. Have student pairs interview each other and share their partners' predictions with the class.

For **Three-Step Interview**, see page BP46.



Three-Step Interview

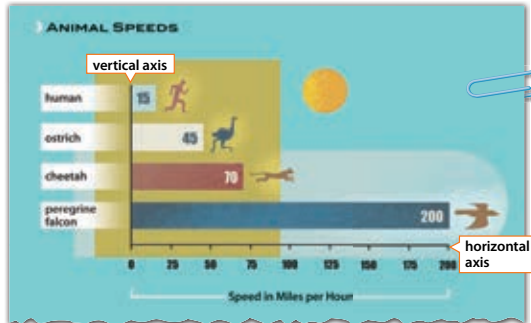
## Read a Math Article

### Genre

A **math article** is nonfiction. It gives number facts about people, places, or events.

### Text Feature

**Graphs** show data, or information that uses numbers. A **bar graph** is one kind of graph. Each bar represents one piece of information.



▲ The name of the animal is listed on the vertical axis. The animal's speed is on the horizontal axis.



## STUDENT TECHNOLOGY



Student eEdition



Read with Me



Comprehension Coach



My Vocabulary Notebook

NGReach.com

Comprehension Coach

## Reading

### 3 Read a Math Article Anthology pages 432–433

**GENRE** Have a volunteer read aloud the definition of a math article. Elaborate: *Number facts include information about dates, **speeds**, **distances**, and **heights**.*

**TEXT FEATURE** Ask a volunteer to read aloud the information about graphs. Elaborate: ***Graphs** can compare information, such as how large or small a measurement is. You compare the items on a bar **graph** by looking at bar lengths.*

**SCIENCE BACKGROUND** Share information to build background:

- **Speed** affects the things you see and hear every day.
- For example, you see a flash of lightning before you hear the rumble of thunder because light travels at a faster **speed** than sound.
- In fact, light moves so fast that it travels from the sun to Earth in only 8.3 minutes.

Have students read **Anthology** pages 433–439. See **Differentiate**

## Differentiate

### BL Below Level

**FRONTLOAD** Preview graphs, examining labels. Read the story. Use questions to build comprehension.

### OL On Level

**READ TOGETHER** Have groups read the selection together. Use the questions to build comprehension.

### AL Above Level

**READ INDEPENDENTLY** As students read silently, have them take notes to compare and contrast.

## Best Practices

**Link to Experience** Prompt students to make connections with different subject areas:

- How are the **graphs** you have previewed in this article like **graphs** you have seen in math or science books?
- What are some examples of other fast animals or machines that can move at great **speeds**?

**1 Set a Purpose**  
Learn about the **speeds** of different animals and objects in our universe.

### How Fast Is Fast?

You may be **fast on your feet**, but if you want to win races, never race a cheetah (or even an ostrich, for that matter).

If you ran very hard, you might reach a **speed** of 24 kilometers per hour (15 miles per hour). That's not nearly fast enough to keep up with an ostrich.

An ostrich is the world's fastest two-legged runner. It has a top speed of about 72 kilometers per hour (45 miles per hour). In a race, though, the cheetah would certainly be **way out in front**.



▲ A peregrine falcon in downward flight is faster than any animal that lives on land.

In Other Words  
**fast on your feet**  
a great runner  
**way out in front** first

434

A cheetah can reach a speed of about 113 kilometers per hour (70 miles per hour). That's more than a mile a minute. No animal on Earth can run faster than that.

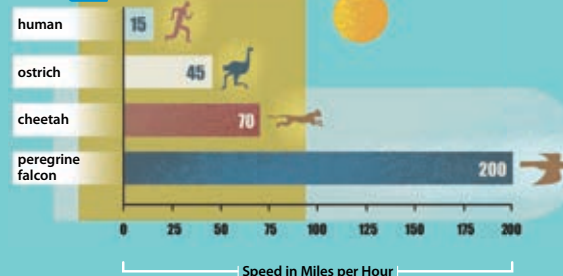
But a cheetah can't run as fast as a peregrine falcon can **swoop**.

A peregrine falcon can dive through the sky at about 322 kilometers per hour (200 miles per hour). That's three times as fast as a car **zooming** along a highway.

A peregrine falcon is magnificent. It can dive faster than any creature can run. But it can't fly as fast as an airplane.

### ANIMAL SPEEDS

**2 SN**



In Other Words  
**swoop** fly downward  
**zooming** traveling at a fast **speed**

### Before You Move On

- 1. Compare/Contrast** How much faster can an ostrich run compared to a person?
- 2. Ask Questions** What is one question you have about the information on the graph?

435

Anthology  
pages 434–435

## Fluency

**Practice Intonation, Accuracy, Rate** As students read, monitor their intonation, accuracy, and rate.

## Answers Before You Move On

- 1. Compare/Contrast** ✓ According to the bar **graph**, an ostrich can run 45 miles per hour, and a person can run 15 miles per hour. Therefore, an ostrich can run 30 miles an hour faster than a person.
- 2. Ask Questions** Encourage students to write the questions they have and see if they can find the answers as they read on. Possible response: How do scientists **measure** a peregrine's flight?

## Mini Lesson

### Interpret Graphs

Explain: **Bar graphs** use bars of different lengths to show and compare number facts. Have volunteers identify the bar graphs on pages 435, 436, and 439.

Draw attention to the bar graph on **Student eEdition** page 435. Point out different parts of the bar graph and model how to analyze the information:

- The vertical axis shows what subjects are being compared: different animals.
- The horizontal axis shows what is **measured**: how fast the animals move.
- To see the **speed** of each subject, look at where the end of its bar lines up with the horizontal axis. This **graph** also indicates the **speed** inside each bar.

Ask: *How fast does an ostrich run?* (45 miles an hour) *How do you know?* (The number is written at the bar's end, and the bar lines up with the number 45 on the horizontal axis.) Model how to analyze information in the graph to make comparisons: *The peregrine falcon can move at 200 miles per hour, so it is faster than a human, ostrich, or cheetah.*

Have students scan the text on **Anthology** pages 434–435 and identify places where number facts about each animal's speed appear. Elaborate: *Both the text and the bar graph contain the same number facts. The bar graph supports the text by making it easy for you to see how fast each animal is compared to the others.*

To check understanding, have partners read another graph from the article, analyze the information, and explain how the graph supports the text.



## Flight Times

Some propeller planes can fly more than 483 kilometers per hour (300 miles per hour). With a propeller pulling you through the air, you can travel faster than the fastest falcon.

With a jet engine, you can fly faster than the fastest propeller plane. In fact, you can fly even faster than the speed of sound.

Sound travels in waves. **At high altitudes**, where jets fly, sound waves travel about 1,062 kilometers per hour (660 miles per hour). Some very fast jets can fly twice the speed of sound.

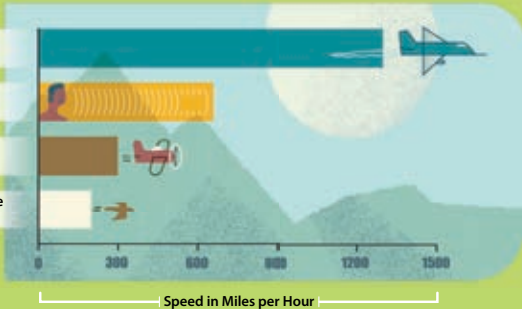
SN

jet

sound

propeller plane

peregrine falcon



▲ Sound waves travel through the air.



In Other Words

**At high altitudes** High in the air; Miles above the ground

▶ **propeller plane** a plane with a propeller

436

If you shouted to someone who was traveling faster than sound, your voice would not go fast enough to catch up to him or her. The person would never hear you.

## Faster Still

If you want to travel to the moon, you're going to need something that's much faster than a jet. You'll need a rocket ship.

3

BL

To escape Earth's gravity and travel into space, a rocket ship must go faster than any jet. To travel to the moon, a rocket ship must reach a speed of about 40,234 kilometers per hour (25,000 miles per hour). That's more than thirty times as fast as sound.

A rocket ship takes off with incredible speed.



## Before You Move On

- 1. Compare/Contrast** Compare the **speed** of a jet with the **speed** of sound. Which travels faster?
- 2. Explain** What is faster than a jet? How do you know?

437

Anthology  
pages 436–437

## Read and Build Comprehension

- 1. Set a Purpose** Have students read the introduction at the top of **Anthology** page 434 to establish a purpose for reading this math article.
- 2. Compare and Contrast** ✓ *How does a cheetah's **speed** compare with the **speed** of a human?* (The cheetah is much faster.) *How is this shown in the **graph**?* (The **graph** shows humans at 15 m.p.h. and cheetahs, 70 m.p.h.)
- 3. Draw Conclusions** ✓ *Review the information about jets and rockets on pages 436–437. What can you conclude about the effect of Earth's gravity on a jet?* (Possible response: I read that jets aren't fast enough to travel to the moon and that a rocket ship travels faster to escape Earth's gravity. I connect ideas and conclude that a jet doesn't fly fast enough to escape gravity.)

## Differentiate

### BL Below Level

**ISSUE** Students have difficulty drawing a conclusion for question 3, above.

**STRATEGY** Have students list important details about jets and rockets from the text and graph on page 436 and draw lines between details that relate in some way. Remind students to put together these related details to draw a conclusion about the topic.

### SN Special Needs

**ISSUE** Students are confused by the different kinds of information shown in the graphs.

**STRATEGY** Direct students to explain each type of information on the graph. Use card stock to isolate each feature, including vertical axis labels, horizontal axis labels, bars, and pictures.

## Answers Before You Move On

- 1. Compare/Contrast** ✓ A jet flies faster than the **speed** of sound.
- 2. Explain** Possible response: A rocket is faster than a jet. I know because a rocket travels at 30 times the **speed** of sound, and a jet travels at twice the **speed** of sound.

## Space Speeders

You can turn off your rockets and **coast** after you're in space. That's because there's little to no drag in space. Drag is a force that acts against objects when they travel through air. Drag slows down moving objects. Now, speeding through space at 40,234 kilometers per hour (25,000 miles per hour) is **mighty** fast.

What's that zooming by, going so much faster that you feel like you are standing still? It's a meteoroid!

- 1 A meteoroid is a space rock. Some meteoroids **streak** through space at 241,402 kilometers per hour (150,000 miles per hour). That's six times faster than your rocket ship is traveling.

### 2 DRAG ON A BALL



▲ The ball pushes against the air as it travels. Air pushes back. The ball slows down.



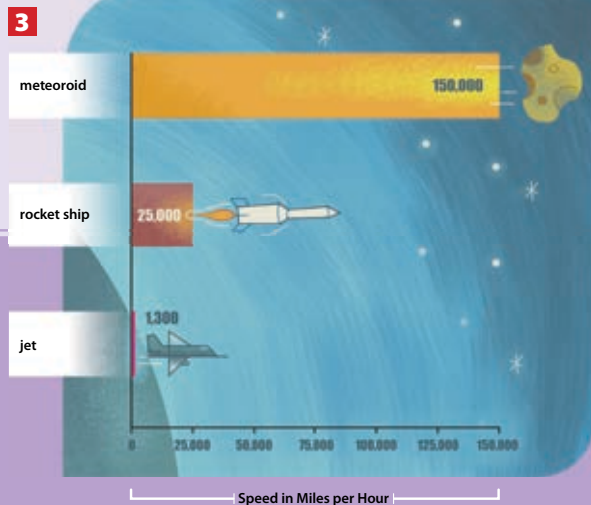
meteoroid

In Other Words  
**coast** keep moving without using additional power  
**mighty** very  
**streak** zoom; move

438

As you circle around the moon and head back to Earth, you might be thinking that the meteoroid you saw was the fastest thing you could ever see.

### FASTER AND FASTER



#### Before You Move On

1. **Draw Conclusions** What can you conclude about why meteoroids can travel so fast in space?
2. **Use Text Features** What does the bar graph on this page compare?

439

Anthology  
pages 438–439

## Read and Build Comprehension

- 1 **Compare and Contrast** ✓ How does the **speed** of a meteoroid moving through the air compare with the **speed** of a rocket? (Possible response: Both a meteoroid and a rocket travel quickly, but a meteoroid is much faster. It moves at six times the **speed** of the rocket.)
- 2 **Draw Conclusions** ✓ What can you conclude from the information about drag and the illustration of its effect on a baseball? (Possible response: Drag affects all objects, whether as large as a rocket or as small as a baseball.)
- 3 **Analyze Graphs** What information does the **graph** provide? (Possible responses: The jet has the slowest **speed**. The **speed** of the meteoroid is six times faster than the rocket ship and almost 12 times faster than the jet.)

## Check & Reteach

**OBJECTIVE:** Explain Text Structure: Compare and Contrast ✓

Check for accurate responses to compare/contrast comprehension questions.

If students have difficulty, have them list details about the objects being compared, circle the details that show similarities, and underline details that show differences.

**OBJECTIVE:** Draw Conclusions to Comprehend Text ✓

As students answer the comprehension questions, ensure that they can synthesize details in the text in order to draw conclusions.

If students need help synthesizing details, have them list details from one paragraph.

Ask: *What do these details tell you about the topic?* Have students write one sentence that incorporates the details they found into a conclusion about the topic.

## Answers Before You Move On

1. **Draw Conclusions** ✓ Possible response: I read that there is little drag in space. I also read that drag can slow down moving objects. I connect these ideas and conclude that meteoroids can travel so quickly because there is no drag to slow them down.
2. **Use Text Features** The bar **graph** on page 439 compares the **speeds** of a jet, a rocket, and a meteoroid.

# Writing

## 4 Write About Graphs

**REVIEW** Remind students that graphs present information using numbers and graphics. Ask: *Why are graphs helpful in math articles?* (Possible responses: **Graphs** support the information in a text. They also make the information easier to read and compare.)

Display the graph on **Student eEdition** page 435 and ask: *What information does this graph show?* (Possible response: It shows the **speeds** of a human, an ostrich, a cheetah, and a peregrine falcon.)

Model how to write a factual statement that compares the animals in the **graph**:

Think Aloud	Write
<i>The bars on this graph show that an ostrich runs 45 miles per hour, and a cheetah runs 70 miles per hour.</i>	The cheetah runs 25 miles per hour faster than the ostrich.

For **Writing Routine 2**, see page BP48.

Have students work independently to write factual statements based on the information presented in another bar graph from the math article. Have students add their statements to their Weekly Writing folders.

See **Differentiate**



### Daily Language Arts

#### Daily Spelling and Word Work ✓

Practice page T423k

#### Daily Grammar ✓

Show the adverb *nearly* and the adjective *fastest* on **Anthology** page 434. Then use page T423n to teach rules about when to use adverbs and adjectives.

#### Daily Writing Skills ✓

Model how to integrate information from the graphs on **Anthology** pages 436 and 439: *A rocket ship and a meteoroid can both travel faster than the speed of sound.* Then use page T423p to practice integrating information from multiple sources.

## Differentiate

### SN Special Needs

**ISSUE** Students have difficulty writing a factual statement about information from a graph.

**STRATEGY** Provide sentence frames for students to complete based on information from their graph: \_\_\_\_\_ travels at \_\_\_\_\_ miles per hour, while \_\_\_\_\_ travels at \_\_\_\_\_ miles per hour. \_\_\_\_\_ travels the fastest.

### EL English Learners

**ISSUE** Students have difficulty writing with comparative adjectives.

**STRATEGY** Review that comparative adjectives like *fast*, *faster*, and *fastest* help compare the speed of two or more things. Provide students with language frames to help them write their sentences: A \_\_\_\_\_ is fast, but a \_\_\_\_\_ is faster. A \_\_\_\_\_ is fastest of all.

**WRAP-UP** Put students in small groups and assign them the names of some animals and things discussed in this text: ostrich, cheetah, peregrine falcon, propeller plane, sound, jet, rocket ship, meteoroid. Have students race to see how quickly they can order the names from slowest to fastest.

## OBJECTIVES

### Thematic Connection: Forces and Motion

- ✔ Explain Text Structure: Compare and Contrast
- ✔ Draw Conclusions to Comprehend Text

## PROGRAM RESOURCES

### TECHNOLOGY ONLY

Read with Me: Selection Recordings: MP3 or CD 3  
Track 3

My Vocabulary Notebook  
Comprehension Coach

## MATERIALS

timer

## Power Writing

Have students write as much as they can as well as they can in one minute about what it might feel like to travel in a rocket.

For **Writing Routine 1**, see page BP47.

## COMMON CORE STANDARDS

### Reading

Summarize	CC.4.Rinf.2
Interpret Information Presented Visually and Quantitatively	CC.4.Rinf.7
Read with Fluency to Support Comprehension	CC.4.Rfou.4
Read with Purpose and Understanding	CC.4.Rfou.4.a
Read Orally with Expression on Successive Readings	CC.4.Rfou.4.b

### Writing

Draw Evidence from Texts	CC.4.W.9
Write Over Shorter Time for Specific Purposes	CC.4.W.10

### Language and Vocabulary

Acquire and Use Academic and Domain-Specific Words	CC.4.L.6
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## WARM-UP

Display the Key Words in Vocabulary Practice. Have each student use as many Key Words as possible to write a sentence about building a rocket to travel to Mars. Invite students to share their sentences with the class.

## Vocabulary Practice

### 1 Share Word Knowledge ✔

**REVIEW** Have students use the Three-Quarter Book Visual Organizers they made on Day 3. Review what the organizers show.

Group each student with a partner who studied a different Key Word, and have partners follow **Vocabulary Routine 3**.

- Have partners take turns reading their organizers.
- Have partners talk about how the pictures and examples show the meanings of the Key Words.
- Have partners create sentences using both Key Words and add the sentences to **My Vocabulary Notebook**.

For **Vocabulary Routine 3**, see page BP36.

### Key Words

accelerate · average · comparison  
conclusion · distance · height  
graph · measure · motion  
rate · scale · solve  
speed · synthesize

## Academic Talk

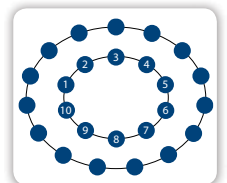
### 2 Summarize Reading

**REVIEW** Remind students: *When you summarize an article, you briefly tell the most important points.*

Write these Key Words: *comparison, graph, measure, rate, speed.* Have students use a **Fishbowl** to summarize.

- Students on the inside summarize **Anthology** pages 434–436.
- Students on the outside listen for Key Words and the most important points.
- Groups change positions, and the new inside group summarizes pages 437–439.

For **Fishbowl**, see page BP45.



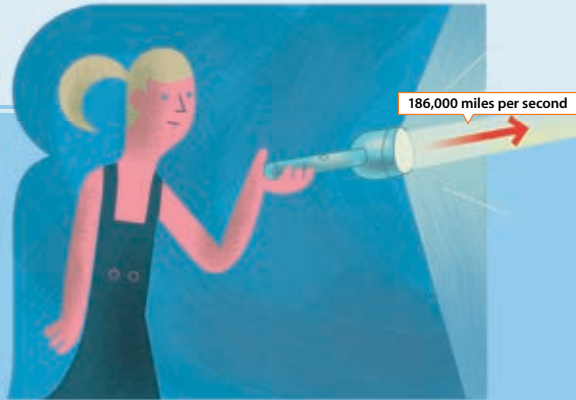
Fishbowl

### Fastest of All

**Hold on** a minute. There's something much faster than even the fastest meteoroid. It's something you see all the time.

Just push the switch on a flashlight. Instantly, a light beam will flash out at the amazing speed of 299,338 kilometers per second (186,000 miles per second).

That's thousands of times faster than a meteoroid. At that speed, a beam of light could circle Earth more than seven times in one second.



In Other Words  
**Hold on** Wait

440

Most scientists believe that nothing can travel through space faster than light. Who would have thought that the fastest traveling thing in the whole universe could come out of something small enough to hold in your hand? **1**



A beam of light could circle Earth more than seven times in one second!

#### HOW LONG WOULD IT TAKE TO TRAVEL FROM EARTH TO THE MOON (239,000 MILES)?

2 3	AT THIS SPEED...	IT WOULD TAKE ABOUT
SN	Young Runner (15 miles per hour)	1 ¾ years
	Ostrich (45 miles per hour)	7 ⅓ months
	Cheetah (70 miles per hour)	4 ⅔ months
	Peregrine Falcon (200 miles per hour)	7 weeks
	Propeller Plane (300 miles per hour)	4 ⅔ weeks
	Supersonic Jet (1400 miles per hour)	1 week
	Rocket Ship (25,000 miles per hour)	9 ½ hours
	Meteoroid (150,000 miles per hour)	1 ½ hours
	Light (186,000 miles per second)	1 ⅓ seconds

#### Before You Move On

- 1. Draw Conclusions** Identify a detail that supports the conclusion that a light beam travels faster than a meteoroid.
- 2. Interpret** Based on the chart, which three objects travel fastest through space?

441

### STUDENT TECHNOLOGY



Student eEdition



Read with Me



My Vocabulary Notebook



Comprehension Coach

NGReach.com

Anthology  
pages 440–441

## Reading

### 3 Read and Build Comprehension

- 1 Determine Main Idea** *What is the most important idea in the section "Fastest of All"? (Light travels the fastest.)*
- 2 Analyze Text Features** *How is the chart on page 441 organized? (The first column names an object and its **speed**. The second shows how long it would take that object to travel from Earth to the moon.)*
- 3 Compare and Contrast** *Compare how long it would take two of the items on the chart to travel from Earth to the moon. (Possible response: A rocket ship could reach the moon much faster than a jet could.)*

## Differentiate

### BL Below Level

**ISSUE** Students do not understand how the illustrations on **Anthology** pages 440–441 relate.

**STRATEGY** Have students read aloud the caption and the label. Then have them look for clues that link the images, identify what is pictured in both images (beam of light), use a finger to trace the light's path, and then discuss how the images relate.

### AL Above Level

**ISSUE** Students do not see how the graphs and chart relate to one another.

**STRATEGY** Prompt students to identify the main topic covered by each graph and the chart and then note whether information about the same objects appears on more than one graph. Ask: *What information from the **graphs** does the chart include?* (Possible response: The chart summarizes the **speeds** of all the objects.)

## Fluency

**Practice Intonation, Accuracy, Rate** As students read, monitor their intonation, accuracy, and rate.

## Answers Before You Move On

- 1. Draw Conclusions** *Possible responses:* Both the text and the chart show that a light beam travels at 186,000 miles per second. That means that a light beam is thousands of times faster than a meteoroid.
- 2. Interpret** Based on the chart, a rocket ship, a meteoroid, and light travel fastest through space.

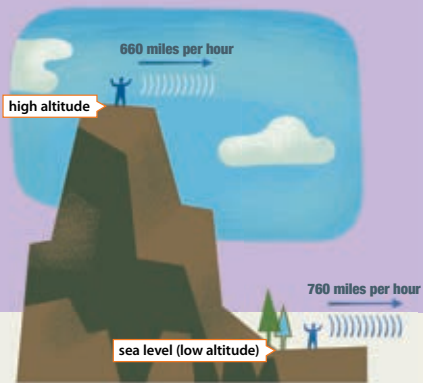
## Some Additional Thoughts on Very Fast Things

Sometimes speeds are hard to **measure**. People often have trouble measuring the speeds of animals. The numbers in this article are the best **estimates**. It would be much simpler if cheetahs, ostriches, and falcons **came with** speedometers.

The speed of sound through air is easier to measure than the speeds of wild animals. Still, the speed of sound **is not constant**. It's about 1,223 kilometers per hour (760 miles per hour) at sea level. At high altitudes, where the air is thin and cold, it slows to about 1,062 kilometers per hour (660 miles per hour).

1

### SPEED OF SOUND AT HIGH AND LOW ALTITUDES



A speedometer measures the speed of a moving object.

In Other Words  
**came with** had  
**is not constant** can change

442



Meteoroids zoom through space at different speeds, too. The meteoroid in this article is a fast one.

The amazing speed of light, traveling through space at 299,338 kilometers per second (186,000 miles per second), is one of the few speeds that **is constant**.

2

Light beams flashing through space are usually shown as bright rays. A real light beam, however, becomes bright and visible only when it hits such things as dust or water particles.

Now you know what the fastest thing in the universe is. The next time you're in a conversation about speed, you'll be able

3 to **shed some light on** the subject! ❖

In Other Words  
**is constant** always stays the same  
**shed some light on** explain

### Before You Move On

- Draw Conclusions** What makes sound easier to **measure** than a racing animal?
- Compare/Contrast** Describe one way in which the **speed** of light and the **speed** of sound are different.

443

Anthology  
 pages 442–443

## Best Practices

**Encourage Respect** Have students repeat what the person before them said before they express their own ideas. For example, "Gracie thinks the author uses the phrase 'shed some light on the subject' only because it means to explain, but I think he is also making a joke because he has been talking about how fast light moves."

## Read and Build Comprehension

- Draw Conclusions** ✓ *Based on information in this section, what can you conclude about sound and altitude?* (Possible response: Sound cannot travel through thin, cold air as easily as through warmer air. Altitude acts as a drag.)
- Compare and Contrast** ✓ *Compare and contrast the **speed** of a meteoroid with the **speed** of a beam of light.* (Possible response: The **speeds** are alike since both travel faster than a jet. The speeds are different because a meteoroid does not travel at a constant **rate**, but a beam of light does.)
- Analyze Figurative Language** *Why did the author include the phrase "shed some light on the subject" at the end of page 443?* (Possible response: It means "to explain" but is also funny because part of the article is about light.)

## Check & Reteach

**OBJECTIVE:** Explain Text Structure: Compare and Contrast ✓

Check for accurate responses to the compare and contrast questions.

If students have difficulty comparing and contrasting, have them pick one set of details and ask themselves: *How are these details alike? How are they different?*

**OBJECTIVE:** Draw Conclusions to Comprehend Text ✓

Check for accurate responses to all questions about drawing conclusions.

If students have difficulty, have partners discuss important ideas in the text and think about how the ideas might relate to one another. Provide the following sentence frames: I see \_\_\_\_\_. I read \_\_\_\_\_. These ideas go together because \_\_\_\_\_. I conclude \_\_\_\_\_.

## Answers Before You Move On

- Draw Conclusions** ✓ An animal's **rate** of **speed** varies as it moves. The **speed** of sound also has variations, but they are fewer. This makes it easier to measure sound.
- Compare and Contrast** ✓ The **speed** of light is constant. The **speed** of sound is not; it travels at a slower **rate** at high altitudes.

# Writing

## 4 Write Reasons

**REVIEW** Ask: *What kind of information can a **graph** show?* (number facts) Explain:

*You can use **graphs** to present information about number facts in a math article.*

Model how to write reasons for including graphs in a math article.

Think Aloud	Write
<i>First, I will write about how a <b>bar graph</b> can support the text.</i>	A bar graph helps a writer show number facts in a visual way.
<i>Then I will write about how readers can use a <b>bar graph</b>.</i>	Readers can look at the bars in a graph to compare and contrast information.

For **Writing Routine 2**, see page BP48.

Have students work independently to write reasons why writers might include text features like graphs or charts in a math article. Have students add their reasons to their Weekly Writing folders.

See **Differentiate**



### Daily Language Arts

#### Daily Spelling and Word Work ✓

Practice page T423l

#### Daily Grammar ✓

Point out adjectives and adverbs on **Anthology** page 443. Then use page T423n to practice adjectives and adverbs.

#### Daily Writing Skills ✓

Briefly point out that the visuals on **Anthology** pages 440–443 help readers understand the main ideas in the article. Then use page T423p to practice identifying big concepts.

## Differentiate

### EL English Learners

**ISSUE** Students lack the sentence skills necessary for writing a reason.

**STRATEGY** Provide language frames: A \_\_\_\_\_ can tell/show/explain \_\_\_\_\_. It helps a reader because \_\_\_\_\_.

### SN Special Needs

**ISSUE** Students cannot integrate information to identify and write about a reason.

**STRATEGY** Break the process into small steps:

- Have students identify some things that a graphic organizer can do.
- Have students think about and discuss what looking at a graphic organizer can help a reader understand or do better.
- Use information from the discussion to help students write reasons why the writer of a math article might include graphs.

**WRAP-UP** Tell students that the shortest distance between Earth and Mars is 35 million miles. Then have pairs of students pick an object from **Anthology** page 441 and calculate how long it would take it to travel from Earth to Mars.

# Day 5 Review and Apply

## OBJECTIVES

### Thematic Connection: Forces and Motion

- ✓ Explain Text Structure: Compare and Contrast
- ✓ Read with Fluency

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

- Test-Taking Strategy Practice: Practice Master PM7.5
- Comparison Chart: Practice Master PM7.6
- Fluency: Practice Master PM7.7

### TECHNOLOGY ONLY

- Online Vocabulary Games
- Comprehension Coach
- Read with Me: Fluency Models: MP3 or CD 1 Track 13

## MATERIALS

2 tennis balls • stopwatch or timer • self-stick notes

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *motion*.

For **Writing Routine 1**, see page BP47.

## COMMON CORE STANDARDS

### Reading


- Refer to Details and Examples When Explaining Text CC.4.Rinf.1
- Read and Comprehend Informational Texts CC.4.Rinf.10
- Read Orally with Expression on Successive Readings CC.4.Rfou.4.b

### Writing

- Write Over Shorter Time for Specific Purposes CC.4.W.10

### Language and Vocabulary

- Acquire and Use Academic and Domain-Specific Words CC.4.L.6



## WARM-UP

Remind students that they have read a math article about **speed** and movement this week. Have partners hold a pencil and a small slip of paper at shoulder height. On the count of three, partners drop their objects and observe what happens. Circulate and help students reach the conclusion that the pencil drops straight down and hits the ground first because it is heavier than the paper.

## Vocabulary Review

### 1 Apply Word Knowledge ✓

Write: **comparison**, **synthesize**, **conclusion**, **graph**. Call students' attention to the other Key Words on **Student eEdition** page 444. Then have students apply their knowledge of the Key Words to play a game called "Stump the Expert." Explain the instructions:

- *I will choose a student to be the "Expert."*
- *Another student, the "Stumper," will say a definition of a Key Word, and the Expert must guess what the word is.*
- *If the Expert is correct, another Stumper may try to challenge the Expert.*

Have students begin the game.

- Designate one student to be the Expert and one student to be the Stumper.
- The Stumper challenges the Expert.
- The Expert has ten seconds to think of each term. If the Expert responds correctly, the next Stumper offers a challenge.
- The game continues until the Expert is stumped or answers three challenges. After three correct answers, another student becomes the Expert.

For **More Vocabulary Routines**, see pages BP41–BP43.

For additional practice, have students play the **Online Vocabulary Games** in pairs or individually.

### Key Words

accelerate • average • comparison  
conclusion • distance • graph  
height • measure • motion  
rate • scale • solve  
speed • synthesize

What word means "movement"?





Key Words	
accelerate	motion
average	rate
distance	scale
height	solve
measure	speed

## Talk About It

- How can you use the graphs in this **math article** to compare and contrast moving objects?
- Think about the different **speeds** at which things move. When do things move fast or slow? With a partner, **ask and answer questions** about this topic.

When is \_\_\_\_? It's \_\_\_\_.

- The author says that researchers have to estimate how fast animals move. How would you explain this to a friend? Summarize what it means to estimate the **speed** of a moving object.

When you estimate, you \_\_\_\_\_. Researchers have to estimate animal speeds because \_\_\_\_\_.

Learn test-taking strategies.  
NGReach.com

## Write About It

Who is the fastest runner in your class? How could you find out? Write a set of instructions for a race. In your instructions, tell how you would **measure** each person's running **speed**. Also tell what kind of graph you would use to compare the **rates**. Use **Key Words** in your list.

- Mark the starting line of the race.
- Mark the \_\_\_\_\_.

444

Anthology page 444

### STUDENT TECHNOLOGY



Student eEdition



Comprehension Coach



Fluency Model



Assessment

NGReach.com

## Daily Language Arts

### Daily Spelling and Word Work

Test page T423k

### Daily Grammar

Point out the word *instantly* on **Anthology** page 440. Then use page T423n to review and assess using adverbs.

### Daily Writing Skills

Point out the graph, photos, and captions on **Anthology** pages 436–437. Then use page T423p to assess students' ability to integrate information from multiple sources.

## Answers Talk About It

- Math Article** Possible response: The graphs make it easy to see the similarities and differences of the **speeds**.
- Ask and Answer Questions** Possible response: When is an animal moving fast? It is moving fast while trying to catch its prey or escape from a predator.
- Summarize** Possible responses: When you estimate, you use information you know in order to make a calculation. Researchers have to estimate animal **speeds** because it is hard to measure those **speeds**. They do not always move at the same **speed**.

## Academic Talk

### 2 Talk About It Anthology page 444

Have partners use Key Words as they discuss the **Talk About It** questions. Remind students to use either formal or informal language that is appropriate to the situation, such as by speaking formally when addressing the class as a whole.

Then use the test-taking strategy lesson from **NGReach.com** and **Practice Master PM7.5** to ask more questions about the selection.

## Writing

### 3 Write About It Anthology page 444

Ask the class who the highest jumper in the class might be. Discuss: *What can we do to **measure** the jumps?* Then read aloud the directions on **Anthology** page 444. Explain that the instructions they write for the race must be clear and precise enough for the readers to follow:

- Notice how even the smallest steps are explained. Instead of just saying, "Set up a race," the example explains exactly how to set it up.*
- You can use the sentence frame to begin your instructions.*

Encourage students to use Key Words as they write. Use a stopwatch to measure each student's speed. Have students add their instructions to their Weekly Writing folders.

Name \_\_\_\_\_ Date \_\_\_\_\_

#### Test-Taking Strategy Practice

### Read All Choices

**Directions:** Read each question about "What's Faster Than a Speeding Cheetah?" Choose the best answer.

#### Sample

- 1 Which of the following moves the fastest?

- Ⓐ jet
- Ⓑ cheetah
- Ⓒ falcon
- Ⓓ rocket

- 2 The speed of light is one of the few speeds that is \_\_\_\_\_.

- Ⓐ slower at high altitudes
- Ⓑ not constant
- Ⓒ constant
- Ⓓ faster in space

- 3 Why do we have trouble measuring the speeds of animals?

- Ⓐ They do not come with speedometers.
- Ⓑ They are faster than the speed of sound.
- Ⓒ They are hard to see.
- Ⓓ They are faster than the sound of your voice.

Tell a partner how you used the strategy to answer the questions.

For use with TE p. T444

PM7.5

Unit 7 | Moving Through Space

Differentiate

**SN** Special Needs

**ISSUE** Students have difficulty finding information for the chart.

**STRATEGY** Point out the sentences where the information is found. Have students read each sentence aloud. Then ask them forced-answer questions: *When the peregrine falcon dives in the sky, is it running or flying?* (flying) *What numbers tell us how fast it flies?* (322 km/200 miles per hour)

**BL** Below Level

**ISSUE** Students can identify differences but have difficulty seeing similarities.

**STRATEGY** Help students list characteristics of the two things being compared. Point out and discuss the ones that are similar.

**AL** Above Level

**ISSUE** Students are ready to offer comparison points that are not on the Practice Master.

**STRATEGY** Have students create additional columns to their charts to illustrate their new comparison points.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Comparison Chart**

**“What’s Faster Than a Speeding Cheetah?”**

Make a comparison chart for “What’s Faster Than a Speeding Cheetah?”

Animal or Object	How it Moves	Fastest Speed	Record
ostrich	runs on two legs	72 Km (45 mi) per hour	fastest animal with two legs
cheetah	runs on four legs	113 Km (70 mi) per hour	fastest land animal
peregrine falcon	flies and dives	322 km (200 mi) per hour	fastest dive
jet plane	flies	2,124 km (1,320 mi) per hour	some fly twice the speed of sound

Use your comparison chart to tell a partner how the animals and objects are alike and different.

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Comprehension

**4 Compare and Contrast** **Anthology** page 445

**REVIEW** Display **Student eEdition** page 445. Have volunteers read aloud the instructions and the sample comparison chart. Point out the labels, and explain: *The first column lists the things being compared. The headings of the other columns tell what features are being compared.*

Review **Anthology** pages 434–436. Model how to add to column 2 of the chart: *I read that peregrine falcons swoop when they fly. So I will write flies and dives in the row that is labeled peregrine falcon.*

Have partners work together to complete **Practice Master PM7.6** and discuss the comparisons listed on their chart. Encourage them to use Key Words in their discussions. As you circulate, use the questions below to guide students.

See **Differentiate**

Characteristic	Guiding Questions
Movement	<ul style="list-style-type: none"> <li>Which two animals or objects move similarly? (ostrich and cheetah; peregrine falcon and jet plane)</li> <li>What makes the movement similar? (Ostriches and cheetahs both move their legs to move quickly across the ground. Peregrine falcons and jet planes both use air to soar across the sky.)</li> <li>How do the types of movements compare? (Running uses legs to stride across the ground. Flying requires wings to move through the air.)</li> </ul>
Speed	<ul style="list-style-type: none"> <li>What can you do to better understand the <b>speed</b> at which ostriches and cheetahs can run? (Possible response: Measure or research how many miles a person can run in an hour.)</li> </ul>
Record	<ul style="list-style-type: none"> <li>How does information in the <b>Records</b> column help you compare the <b>speeds</b> of the animals or objects? (Possible response: They help me see the <b>speeds</b> from a greater perspective, such as a <b>comparison</b> with everything that moves on two legs.)</li> </ul>

Check & Reteach

**OBJECTIVE:** Explain Text Structure: Compare and Contrast

Have students share their comparisons after they complete their charts. If students become confused or have difficulty organizing the details on the chart, guide them to focus on a single characteristic at a time. Use sentence frames to help them make comparisons, for example:

- Both ostriches and cheetahs \_\_\_\_\_.
- The ostrich \_\_\_\_\_, but the cheetah \_\_\_\_\_.

## Compare and Contrast

Make a comparison chart for “What’s Faster Than a Speeding Cheetah?”

Animal or Object	How It Moves	Fastest Speed	Record
ostrich	runs on two legs	24 Km (15 m) per hour	fastest animal with 2 legs
cheetah	runs on four legs	72 Km (45 m) per hour	fastest land animal
peregrine falcon			
jet plane			

Now use your comparison chart as you tell a partner how the animals and objects are alike and different. Use **Key Words** and words like *but* and *however* to compare.

A \_\_\_\_\_ is fast, but a \_\_\_\_\_ is faster.

## Fluency Comprehension Coach

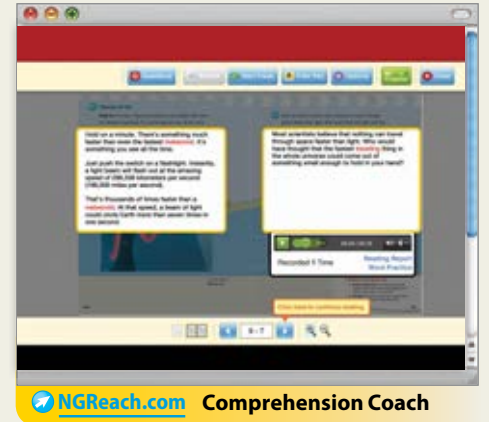
Use the Comprehension Coach to practice reading with intonation. Rate your reading.

### Talk Together

Why do we need to be fast to explore space? Use **Key Words** as you talk about space exploration and motion.

445

Anthology page 445



## 5 Fluency Anthology page 445

Have students read aloud the passage on **Practice Master PM7.7** or use the **Comprehension Coach** to practice fluency.

## Check & Reteach

**OBJECTIVE:** Read with Fluency 

Monitor students’ oral reading.

If students need more fluency practice, have them read along with the **Fluency Models**.

## 6 Talk Together Anthology page 445

Have small groups review the “Faster Still” section on **Anthology** page 437 and the chart on page 439. Display the Key Words so that students can refer to them as they discuss space travel.

**WRAP-UP** Ask students to think about what it would take to travel to Jupiter. What sorts of obstacles would they likely have to overcome? Have students share their ideas with a partner.

Name \_\_\_\_\_ Date \_\_\_\_\_

### Fluency Practice

## “What’s Faster Than a Speeding Cheetah?”

Intonation is the rise and fall in the pitch or tone of your voice as you read aloud. Use this passage to practice reading with proper intonation.

Hold on a minute. There’s something much faster than even the fastest meteoroid. It’s something you see all the time. Just push the switch on a flashlight. Instantly, a light beam will flash out at the amazing speed of 299,338 kilometers per second (186,000 miles per second).

That’s thousands of times faster than a meteoroid. At that speed, a beam of light could circle Earth more than seven times in one second.

Most scientists believe that nothing can travel through space faster than light. Who would have thought that the fastest traveling thing in the whole universe could come out of something small enough to hold in your hand?

From “What’s Faster Than a Speeding Cheetah?” pages 440–441.

### Intonation

- Does not change pitch.  Changes pitch to match some of the content.  
 Changes pitch, but does not match content.  Changes pitch to match all of the content.

### Accuracy and Rate Formula

Use the formula to measure a reader’s accuracy and rate while reading aloud.

$$\frac{\text{words attempted in one minute}}{\text{number of errors}} = \frac{\text{words correct per minute (wpcm)}}{\text{words correct per minute (wpcm)}}$$

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PM7.7

Unit 7 | Moving Through Space

# Week 1 Research Project

## OBJECTIVES

### Thematic Connection: Forces and Motion

- ✓ Research Animal Mobility
- ✓ Identify Big Concepts and Integrate Information from Multiple Sources
- ✓ Add Audio Recordings to Presentations

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

Research Rubric: Assessment Master A7.42

### TECHNOLOGY ONLY

Project Checklist: eVisual 7.5

## MATERIALS

index cards • reference materials about animals

## SUGGESTED PACING

DAY 1	Plan
DAY 2	Research
DAY 3	Research
DAY 4	Organize
DAY 5	Present

## COMMON CORE STANDARDS

### Reading for Information

Integrate Information From Two Texts CC.4.Rinf.9

### Writing

Write Informative/Explanatory Text to Examine a Topic and Convey Information CC.4.W.2

Include Illustrations and Multimedia Introduce a Topic; Group Related Information in Paragraphs and Sections; Include Formatting, Illustrations, and Multimedia CC.4.W.2.a

Develop the Topic CC.4.W.2.b

Provide a Concluding Statement or Section CC.4.W.2.e

Conduct Research CC.4.W.7

Recall Relevant Information; Gather Information; Take Notes; and Categorize Evidence CC.4.W.8

### Speaking and Listening

Add Audio Recordings to Presentations CC.4.SL.5

## Research Speedy Animals

Display and read aloud the prompt.

You have been chosen to go on a National Geographic safari to study animal speed and movement! Choose an animal to research. Then gather information about the animal from three or more different sources. Use what you find to write a research report. Add some digital images and audiovisuals to your report and then present it to the class.

## Plan

### Choose a Topic

Guide discussion to unpack the prompt and determine the Role, Audience, and Form for the RAFT:

**Role:** Amateur scientist

**Audience:** Class

**Form:** Written research report including digital and audiovisual effects

**REVIEW** Remind students: *Good research topics are neither too broad nor too narrow. The topic “world’s fastest animals” is too broad. “World’s fastest race horse” is too narrow.*

Encourage students to review the animals in “What’s Faster Than a Speeding Cheetah?” (see **Anthology** pages 432–435). Then have the class brainstorm other animals they’d like to write about. Start the conversation: *I read an article on the Internet about African lions. They’re pretty fast. I think the movement of lions would be an interesting topic to research and write about.*

Then have students choose an animal to research and complete a RAFT.

## Develop Research Questions

**REVIEW** Remind students: *To guide your research, write questions you have about an animal and its speed.* Have students write three questions on three separate index cards. Encourage students to focus their topics as much as possible by asking very specific questions.

How does the way a lion runs or moves help it to survive?

## Research

### Gather Information

**REVIEW** Have students locate three or more sources (print, digital, and audiovisual). As they read the sources and find important details related to one of their guiding questions, have them take notes on the back of the corresponding question card. They may need two or more index cards for each question, depending upon the number of respective sources. Remind students to include the source where they find each answer.

See **Differentiate**

## Organize

### Arrange Information

**REVIEW** Have students arrange the notes they have taken in sets by guiding question. They can then think about a main idea for each set that pulls all of the important details together. Once they state the main ideas and group important details, they can use the combined information to write their reports (see page 423o). Display and read **eVisual 7.5**.



### Project Checklist

- Locate three or more sources of information to answer my questions.
- Include print, digital, and audiovisual sources.
- Take notes from each source and cite the source.
- Group cards and notes by question and write the report.

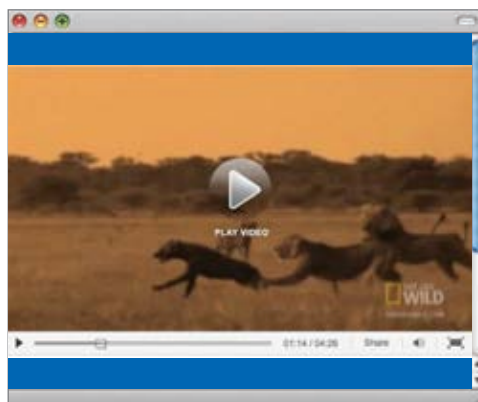
NGReach.com Project Checklist: eVisual 7.5



**INTERACTIVE WHITEBOARD TIP:**  
As you read each item, place a check mark next to it.

### Draft Ideas

As students write their research reports, have them think about places where they can incorporate their digital images and audiovisuals. For example, students might want to download a photograph or other visual of their animal to introduce their topic. Then they can add video or DVD clips and sound recordings as part of their reports.



## Present

### Practice Speaking Skills

Explain to students that, when giving a presentation that includes digital images and audiovisuals, they should use these to support and enhance the information in their reports. Read the following sentence, first without any sound, and then again followed by an audio clip of a lion's roar: *According to the National Geographic Web site, an adult lion's roar can be heard up to five miles (eight kilometers) away.* Ask: *Which reading helps you better understand how loud a lion's roar can be?* (the one with the audio recording because I could hear it)

### Share with Others

Have students take turns presenting their research reports to the class. Remind each student to cue their audio recordings and audiovisuals ahead of time.

Use the **Research Rubric** to evaluate students' presentations.

## Differentiate

### BL Below Level

**ISSUE** Students are having trouble grouping their cards and the information they contain.

**STRATEGY** Have students color code the note cards. They might place a different color circle sticker on cards that go with each of their questions, or they could use a different color marker to draw circles on cards that go with each of their questions.

### AL Above Level

**ISSUE** Students' notes contain too much information, some of which is not relevant to their questions or main ideas.

**STRATEGY** Have students re-examine their questions and answers and get rid of information they do not need. Alternatively, students could create new questions (and main ideas) for the information that did not belong elsewhere.

### Research Rubric

Unit 7, Week 1

Scale	Content	Presentation
4	<ul style="list-style-type: none"> <li>• Three or more reference sources were used, and main ideas and details are organized well to fully develop the topic.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker speaks clearly and at an appropriate rate and volume.</li> <li>• Digital images and audiovisuals are used at the appropriate times and places.</li> </ul>
3	<ul style="list-style-type: none"> <li>• Two reference sources were used.</li> <li>• Some assistance was required for student to articulate and organize main ideas and details in order to develop the topic in a satisfactory way.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker speaks clearly and at an appropriate rate and volume most of the time.</li> <li>• Digital images and audiovisuals are used, but not always at the best time or place.</li> </ul>
2	<ul style="list-style-type: none"> <li>• Only one reference source was used, and student required assistance to articulate and organize main ideas and details.</li> <li>• Topic was not developed fully.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker did not always speak clearly and used an appropriate volume and rate only some of the time.</li> <li>• Only one digital image or audiovisual was used.</li> </ul>
1	<ul style="list-style-type: none"> <li>• No reference sources were used, and main ideas and details were missing or hard to follow.</li> <li>• Topic was not clear.</li> </ul>	<ul style="list-style-type: none"> <li>• Speaker was difficult to understand and hear.</li> <li>• No digital images or audiovisuals were included in the presentation.</li> </ul>

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Grade 4 Assessment

A7.42

Unit 7 | Moving Through Space

# Week 1 Assessment & Reteaching

= TESTED

## Assess

### OBJECTIVES

#### Reading

- Explain Text Structure: Compare and Contrast
- Draw Conclusions to Comprehend Literature

### ASSESSMENTS

**Reading Comprehension Test** Unit 7, Week 1

**Directions:** Read the article. Then answer the questions about the article.

**Eating in Space**

People in space need to eat of course. However, it's not easy to eat when your food keeps floating away from you! Over the years, scientists have learned a lot about how to make food that can stay fresh for a long time and that will not float away.

When space travel first began, the food choices were limited. One type of food was a paste in a tube that had to be squeezed into their mouths. They also ate dried foods and powdered foods. Although easy to eat, these foods did not taste very good.

Astronauts complained about the food, so changes were made. Soon there were foods to eat with a fork or spoon. Astronauts also had more foods to choose from.

Today, space foods are still easy to eat, but now they taste good too. Astronauts enjoy soups and salads. They have many different main dishes, such as chicken and spaghetti. They snack on fresh fruits and vegetables, like oranges and carrot sticks. They even eat chocolate cake for dessert! Now when astronauts eat a meal in space, it's almost like they are eating at home, but with an amazing view!

**A7.4** Unit 7 | Moving Through Space

**Reading Comprehension Test** Unit 7, Week 1

**Directions:** Read the article. Then answer the questions about the article.

Today's space food is similar to early space food because it —

is easy to eat.  
 includes tortillas.  
 is a paste in a tube.  
 includes fresh vegetables.

Today's space food is different from early space food because it —

is powdered.  
 is easy to eat.  
 tastes good.  
 floats away.

Today's space food is eaten with a fork or spoon. From this, you can conclude that the food —

needs to be cooked.  
 looks like food on Earth.  
 is made fresh each day.  
 floats around the spacecraft.

Most astronauts probably think that today's space food is —

not nutritious.  
 easy to prepare.  
 impossible to eat.

**A7.5** Unit 7 | Moving Through Space

**Reading Strategy Assessment** Unit 7

**Check the reading strategy the student used and add the questions that follow about how the student used the strategy. Use the rubric to help you determine how well the student used the strategy. Circle the student's score.**

Ask: *What do you do when you see a word you don't know? How do you know what it means? How do you know if you understand what you are reading?*

Item	Reading Strategy Rubric		
	Part and Member 4 3 2 1	Main Connection 4 3 2 1	Visualize 4 3 2 1
1	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.
2	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.
3	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.
4	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.	Student uses the strategy to find the main idea of the text.

**SG7.30** Unit 7 | Moving Through Space

Reading Comprehension Test  
A7.4–A7.5

Reading Strategy Assessment  
SG7.30–SG7.31

#### Fluency

- Intonation
- Accuracy and Rate

**Oral Reading Assessment** Unit 7

**Directions:** Read the passage aloud. Then answer the questions about the passage.

What would you think if you suddenly saw a new object in the night sky? Would you be afraid? Or would you want to learn more about it? People have always wondered about bright objects in the sky. In ancient times, people watched the sky carefully. They noticed that some lights appeared suddenly and that they looked like long tails. People didn't know what to think of these objects that didn't move regularly through the sky like the stars, the moon, and the planets.

Today, we understand more about these strange objects. We call them comets. They are huge flying "dirty snowballs" made of dust and ice. Most scientists believe that comets are made up of rocky material left over after the planets were formed.

The orbit of most comets in our solar system is very long and looped, and these comets can travel very fast through space when they are near the sun. That's why comets seem to appear suddenly. It can be many years from one encounter of a comet with the Earth to the next.

As a comet nears the sun, pieces of the comet break away or are vaporized and form a tail. The gas steams away from the sun, looking like a tail. Each comet actually has two tails: one tail made of gas and another made of dust. The tail that is made of dust is shorter and curves a little around the comet. The tail that is made of gas is straight and can stretch for millions of miles.

How will you feel the next time you see a new light in the night sky? If you see a tail on the light, it might be a comet. Then you can look for information about it. You might even see the same comet later in your lifetime, and the next time you won't be so surprised.

**A7.1** Unit 7 | Moving Through Space

**Oral Reading Assessment** Unit 7

**Directions:** Read the passage aloud. Then answer the questions about the passage.

Code	Retelling Rubric				
	4	3	2	1	0
1	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.
2	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.
3	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.
4	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.	Student retells the main idea of the passage.

**A7.2** Unit 7 | Moving Through Space

**Oral Reading Assessment** Unit 7

**Directions:** Read the passage aloud. Then answer the questions about the passage.

Observations and Notes:

**Oral Reading Assessment Wrap-up**

Ask the student about his or her reading. You can prompt the student with questions such as:

- Do you have any problems reading the passage? If so, what are they? How do you feel about it?
- Show the student things you noticed about the student's reading, for example, *read that you read with a lot of expression. How reading sounds like you are really listening to what you are reading.*
- Make suggestions about what improvements are needed, for example, *You need to read more slowly so you can hear the words better.*
- If you asked the student to read the story, make notes about what the student needs to improve on, e.g., *Circle the main idea from the text, or present words in the proper sequence.*

**A7.3** Unit 7 | Moving Through Space

Oral Reading Assessment  
A7.1–A7.3

Use these passages throughout Unit 7. Work with Below Level students this week.

#### Vocabulary and Spelling

- Use Domain-Specific Words
- Use Academic Words
- Spell Words with Hard and Soft c, g
- Use Commonly Misspelled Words Correctly

**Vocabulary Test** Unit 7, Week 1

**Directions:** Choose the answer that completes the sentence correctly.

1. The boy and girl are different.

small  
 weights  
 conversations  
 adventures

2. The car is \_\_\_\_\_ quickly.

travels  
 accelerates  
 decomposes

3. I \_\_\_\_\_ how tall my son is.

introduce  
 measure  
 generate  
 breathe

4. The runner's \_\_\_\_\_ is very fast.

motion  
 masses  
 material  
 elevation

5. These runners move at top \_\_\_\_\_.

spray  
 model  
 speed  
 balance

**A7.6** Unit 7 | Moving Through Space

**Vocabulary Test** Unit 7, Week 1

**Directions:** Choose the answer that completes the sentence correctly.

6. \_\_\_\_\_ problem means to figure it out.

suggest  
 express  
 leave  
 solve

7. \_\_\_\_\_ is an amount that is used for a person.

deficit  
 artifact  
 scale  
 application  
 environment

8. \_\_\_\_\_ is the amount of space between things.

Distance  
 Treasure  
 Memory  
 Power

**A7.7** Unit 7 | Moving Through Space

**Spelling Words**

Use these words and sentences for the weekly Spelling Pretest and Spelling Test.

**Words with Hard and Soft c, g**

1. advantage He is a faster runner, so he'll have an **advantage** over me in the race.

2. broadcast We can watch the track meet because it will be **broadcast** on TV.

3. circuit The elevated train tracks make a **circuit** around the downtown area.

4. cylinder The toy looked like a broken **cylinder** rolling down the hill.

5. device He invented a machine to record the movements of animals, and the **device** worked well.

6. engineer An **engineer** helped design the machine.

7. enigma I need to wear a **gadget** that calculates how many steps I walk.

8. gadget

9. genius The scientist is so smart that people say she is a **genius**.

10. glimpse As I whizzed by in the bullet train, I caught a very quick **glimpse** of the town.

11. gravity Without **gravity** to pull people toward Earth, everyone would float away!

12. intelligent Clever, **intelligent** aliens might travel to Earth.

13. oxygen He took a deep breath when climbing the mountain because he needed more **oxygen**.

14. replacement You can return that broken bike and get a **replacement**.

15. telescope When I looked through my **telescope**, I saw a falling star.

**Watch-That Words**

16. finally After our long hike up the hill, we **finally** had lunch.

17. finely I ate a salad with tiny pieces of **finely** chopped fruit.

18. precede Will the race **precede** the game or come after it?

19. proceed The race will begin soon, so all runners should **proceed** to the track.

Vocabulary Test  
A7.6–A7.7

Spelling Pretest/Spelling Test  
T423k

#### Grammar and Writing

- Use Adverbs and Adjectives
- Identify Big Concepts and Integrate Information from Multiple Sources

**Writing, Revising, and Editing Test** Unit 7, Week 1

**Directions:** Read the paragraph. Then answer the questions.

Animals like the cheetah can travel \_\_\_\_\_ fast. Other animals, however, \_\_\_\_\_ seem to be as fast as cheetahs. You \_\_\_\_\_ thinking "heavily" might be used \_\_\_\_\_ clearly, but even some large animals prefer to take their time. One of the slowest mammals is the tree sloth. Sloths \_\_\_\_\_ spend many years in the same tree. They move \_\_\_\_\_ that algae grow on their feet.

1. Choose the answer that goes in Blank 1.

miles  
 among  
 awesome  
 incredibly

2. Choose the answer that goes in Blank 2.

not  
 less  
 never  
 more

**A7.8** Unit 7 | Moving Through Space

**Writing, Revising, and Editing Test** Unit 7, Week 1

**Directions:** Read the paragraph. Then answer the questions.

1. Choose the answer that goes in Blank 3.

like  
 almost  
 probably  
 gamely

2. Choose the answer that goes in Blank 4.

quite  
 above  
 gentle  
 retreats

3. Choose the answer that goes in Blank 5.

any  
 often  
 regular  
 common

4. Choose the answer that goes in Blank 6.

small  
 ahead  
 active  
 supply

**A7.9** Unit 7 | Moving Through Space

**Research Rubric** Unit 7, Week 1

Scale	Content	Presentation
4	• Shows a clear understanding of the topic and uses relevant information to support the main idea. • Includes a clear thesis statement and a conclusion.	• Uses clear, concise language and correct grammar and punctuation. • Organizes information in a logical and easy-to-read way.
3	• Shows a good understanding of the topic and uses relevant information to support the main idea. • Includes a clear thesis statement and a conclusion.	• Uses clear, concise language and correct grammar and punctuation. • Organizes information in a logical and easy-to-read way.
2	• Shows a basic understanding of the topic and uses relevant information to support the main idea. • Includes a clear thesis statement and a conclusion.	• Uses clear, concise language and correct grammar and punctuation. • Organizes information in a logical and easy-to-read way.
1	• Shows a limited understanding of the topic and uses relevant information to support the main idea. • Includes a clear thesis statement and a conclusion.	• Uses clear, concise language and correct grammar and punctuation. • Organizes information in a logical and easy-to-read way.

**A7.42** Unit 7 | Moving Through Space

Writing, Revising, and Editing Test  
A7.8–A7.10

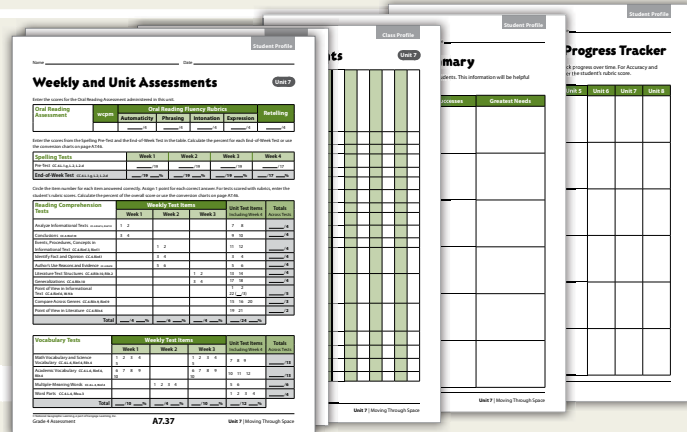
Research Project Rubric  
A7.42



ExamView®

# Reteach and Practice

## REPORTS



### PRINT & ONLINE Report Forms

- Student Profile: Weekly and Unit Assessments** A7.37–A7.38
- Class Profile: Weekly and Unit Assessments** A7.39
- Student Profile: Strengths and Needs** A7.40
- Student Profile: Oral Reading Progress Tracker** A1.3

## RESOURCES AND ROUTINES

### Reading

#### RETEACH

- Compare and Contrast: Reteaching Master RT7.1**
- Draw Conclusions: Reteaching Master RT7.2**

#### ADDITIONAL PRACTICE

Comprehension Coach [NGReach.com](https://www.ngreach.com)

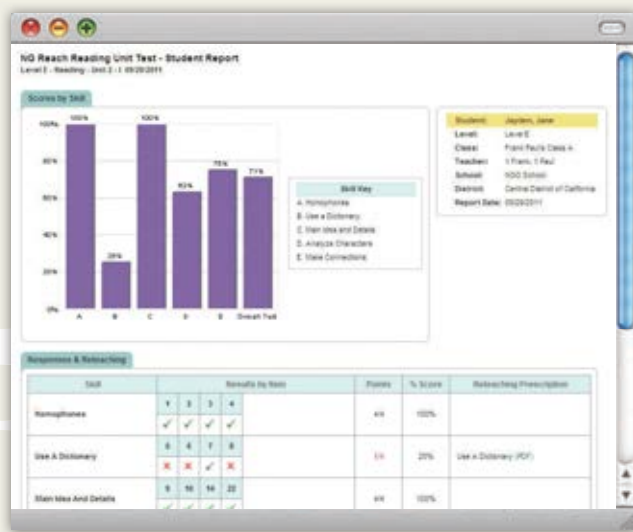
### Fluency

#### RETEACH

Fluency Routines, page BP33

#### ADDITIONAL PRACTICE

Comprehension Coach [NGReach.com](https://www.ngreach.com)



eAssessment™

### ONLINE ONLY Automated Reports

- Student Profile: Weekly and Unit Tests**
- Class Profile: Weekly and Unit Tests**
- Standards Summary Report**

### Vocabulary and Spelling

#### RETEACH

- Vocabulary Routine 6, page BP40**
- Spelling and Word Work Routine, page BP52**

#### ADDITIONAL PRACTICE

Vocabulary Games [NGReach.com](https://www.ngreach.com)

Daily Spelling Practice, pages T423k–T423l

### Grammar and Writing

#### RETEACH

- Adjectives: Anthology Handbook, page 602**
- Adverbs: Anthology Handbook, page 609**
- Writing: Reteaching Writing Routine, page BP51**

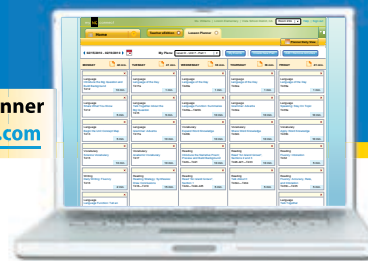
#### ADDITIONAL PRACTICE

More Grammar Practice PM7.8

Daily Writing Skills Practice, pages T423o–T423p

# Week 2 Planner



Online Lesson Planner  
NGReach.com



☑ = TESTED

		Day 1	Day 2
<b>WHOLE GROUP TIME</b>		<b>Listen and Comprehend</b>	
<b>Anthology</b>	<b>Speaking and Listening</b> 🕒 5–10 minutes	<b>Academic Talk</b> CC.4.SL.1 Discuss the Big Question T445o	<b>Academic Talk</b> CC.4.Rinf.1 Preview and Predict T446c
	<b>Language and Vocabulary</b> 🕒 20 minutes	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; CC.4.Rfou.3.a; ☑ Words with oo; Words with CC.4.L.1.g; CC.4.L.2; Silent Consonants T445i CC.4.L.2.d	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; ☑ Practice T445i CC.4.Rfou.3.a; CC.4.L.2.d
	<b>Reading</b> 🕒 20–40 minutes	<b>Daily Grammar</b> CC.4.L.1; CC.4.L.3 ☑ Comparison Adverbs T445m <b>Vocabulary Strategy</b> CC.4.L.4 ☑ Multiple-Meaning Words T445o	<b>Daily Grammar</b> CC.4.L.1; CC.4.L.3 ☑ More Comparison Adverbs T445m <b>Vocabulary Strategy</b> CC.4.L.4 ☑ More Multiple-Meaning Words T446c
	<b>Writing</b> 🕒 15–45 minutes	<b>Reading</b> CC.4.Rinf.1; CC.4.Rinf.3; Read Aloud: Scientific Text T446a CC.4.SL.1.d <b>Comprehension</b> CC.4.Rinf.1; CC.4.Rinf.3; ☑ Explain Concepts in Text T446a CC.4.SL.1.d <b>Fluency</b> CC.4.Rfou.4 ☑ Model Intonation T446a	<b>Reading</b> CC.4.Rinf.1; CC.4.Rfou.4.a Read a Science Report; Read and Build Comprehension T447–T450 <b>Comprehension</b> CC.4.Rinf.1; CC.4.Rinf.8; ☑ Explain Concepts in Text T447, T450 CC.4.Rfou.4.a ☑ Draw Conclusions to Comprehend Text T447, T450 Verify Facts T447 <b>Fluency</b> CC.4.Rfou.4 ☑ Practice Intonation, Accuracy, and Rate T447
		<b>Power Writing</b> T445o CC.4.W.9.b <b>Daily Writing Skills</b> CC.4.L.1; CC.4.L.1.f ☑ Break Up Long Sentences T445m <b>Writing</b> CC.4.W.9; Write About Ideas in Scientific Texts T446b CC.4.W.9.b <b>Writing Project: Informational Essay</b> CC.4.W.2; Study a Model T453i CC.4.W.2.a, b; CC.4.W.5, 10; CC.4.L.1; CC.4.L.1.f; CC.4.L.3	<b>Power Writing</b> T446c <b>Daily Writing Skills</b> CC.4.L.1; CC.4.L.1.f ☑ Break Up Long Sentences T445m <b>Writing</b> CC.4.W.9 Write a Response T451 <b>Writing Project: Informational Essay</b> CC.4.W.2; Prewrite T453j CC.4.W.2.a, b; CC.4.W.5, 10; CC.4.L.1; CC.4.L.1.f; CC.4.L.3



<b>SMALL GROUP READING TIME</b>		<b>Read Science Articles</b>	<b>Read Nonfiction Books</b>
<b>Fiction &amp; Nonfiction</b>	🕒 20 minutes	<b>Vocabulary</b> CC.4.L.6 Learn Science Vocabulary SG11 <b>Reading</b> CC.4.Rinf.1; CC.4.Rinf.10 Use Details and Examples to Explain Text SG10 Build Comprehension SG11	<b>Vocabulary</b> CC.4.L.6 Expand Vocabulary Through Wide Reading SG12–SG13 <b>Reading</b> CC.4.Rinf.1, 2, 3; CC.4.Rinf.10; Read and Integrate Ideas SG14–SG15 CC.4.SL.1.a Informational Texts SG12–SG13 ☑ Draw Conclusions SG14–SG15 ☑ Explain Concepts in Texts SG14–SG15
			

<b>LEARNING STATION TIME</b>			
🕒 20 minutes		<b>Speaking and Listening</b> T445g CC.4.SL.1.c; CC.4.SL.2 <b>Language and Vocabulary</b> T445g CC.4.L.6 <b>Writing</b> T445g CC.4.W.1; CC.4.W.1.a; CC.4.W.3; CC.4.W.3.a <b>Cross-Curricular</b> T445h CC.4.SL.1.d; CC.4.SL.4 <b>Reading and Intervention</b> T445h, SG68 CC.4.Rinf.9; CC.4.Rinf.10; CC.4.Rfou.3; CC.4.Rfou.3.a; CC.4.Rfou.4.c	



**BIG Question** What does it take to explore space?

### Day 3

**Read and Comprehend**


**Academic Talk** CC.4.SL.4  
Talk Together T452

**Daily Spelling and Word Work** CC.4.Rfou.3; CC.4.Rfou.3.a;  
✓ Practice T445j CC.4.L.1.g; CC.4.L.2.d

**Daily Grammar** CC.4.L.1; CC.4.L.3  
✓ Adverbs T445n

**Vocabulary Review** CC.4.L.6  
✓ Science and Academic Vocabulary T451a

**Comprehension** CC.4.Rinf.1; CC.4.SL.4  
✓ Compare Facts and Opinions to Comprehend Text T451a



**Fluency** CC.4.Rfou.4  
✓ Practice Intonation T452

**Power Writing** T451a

**Daily Writing Skills** CC.4.L.1; CC.4.L.1.f  
✓ Break Up Long Sentences T445n

**Writing** CC.4.L.1; CC.4.L.3  
Write to Reinforce Grammar T453

**Writing Project: Informational Essay** CC.4.W.2;  
Draft T453j CC.4.W.2.a, b; CC.4.W.5, 10; CC.4.L.1; CC.4.L.1.f; CC.4.L.3

### Day 4

**Read and Comprehend**

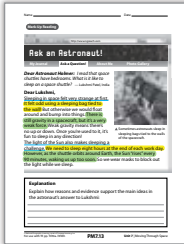
**Academic Talk** CC.4.Rinf.8  
Discuss Drawing Conclusions T453d

**Daily Spelling and Word Work** CC.4.L.2; CC.4.L.2.d  
✓ Practice T445j

**Daily Grammar** CC.4.W.5; CC.4.L.1; CC.4.L.3  
✓ Grammar and Writing T445n

**Vocabulary Practice** CC.4.Rinf.4; CC.4.L.4  
✓ Multiple-Meaning Words T453c

**Reading** CC.4.Rinf.2; CC.4.Rinf.8  
Read an Astronaut Blog T453a–T453b



**Comprehension** CC.4.Rinf.2; CC.4.Rinf.8  
Explain Uses of Reasons and Evidence T453a–T453b

**Fluency** CC.4.Rfou.4  
✓ Model and Practice Intonation T453b

**Power Writing** T453a CC.4.W.10

**Daily Writing Skills** CC.4.L.1; CC.4.L.1.f  
✓ Break Up Long Sentences T445n

**Writing** CC.4.W.9  
Write About Reasons and Evidence T453d

**Writing Project: Informational Essay** CC.4.W.2;  
Revise; Edit and Proofread T453k–T453l CC.4.W.2.a, b; CC.4.W.5, 10; CC.4.L.1; CC.4.L.1.f; CC.4.L.3

### Day 5

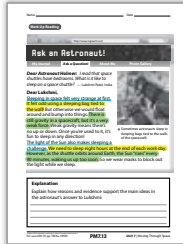
**Review and Apply**

**Academic Talk** CC.4.SL.1.a  
Relate Readings to the Big Question T453h

**Daily Grammar** CC.4.L.1; CC.4.L.3  
✓ Review T445n

**Vocabulary Practice** CC.4.Rinf.4; CC.4.L.4  
✓ Multiple-Meaning Words T453e

**Comprehension** CC.4.Rinf.2; CC.4.Rinf.8; CC.4.SL.1.a  
Compare Support for Main Ideas T453g



**Power Writing** T453e CC.4.W.10

**Daily Writing Skills** CC.4.L.1; CC.4.L.1.f  
✓ Break Up Long Sentences T445n


**Writing** CC.4.W.10  
Write and Support Opinions T453g

**Writing Project: Informational Essay** CC.4.W.2;  
Publish and Present T453l CC.4.W.2.a, b; CC.4.W.5, 10; CC.4.L.1; CC.4.L.1.f; CC.4.L.3

### Read Nonfiction Books

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG12–SG13


**Reading** CC.4.Rinf.1, 2, 3; CC.4.Rinf.10; CC.4.SL.1.a  
Read and Integrate Ideas SG14–SG15 Informational Texts SG12–SG13  
✓ Draw Conclusions SG14–SG15  
✓ Explain Concepts in Texts SG14–SG15



### Read Nonfiction Books

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG12–SG13


**Reading** CC.4.Rinf.1, 2, 3; CC.4.Rinf.10; CC.4.SL.1.a  
Read and Integrate Ideas SG14–SG15 Informational Texts SG12–SG13  
✓ Draw Conclusions SG14–SG15  
✓ Explain Concepts in Texts SG14–SG15



### Read Nonfiction Books

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG12–SG13

**Reading** CC.4.Rinf.1; CC.4.Rinf.2; CC.4.Rinf.10; CC.4.W.10  
✓ Connect Across Texts SG15  
✓ Choose a Writing Option SG14–SG15




### ASSESSMENT & RETEACHING

**Assessment and Reteaching** T453m–T453n

✓ Reading Comprehension Test A7.11–A7.12 CC.4.Rinf.3; CC.4.Rinf.10

✓ Reading Strategy Assessment SG57–SG58 CC.4.Rlit.10

✓ Oral Reading Assessment A7.1–A7.3 CC.4.Rfou.4.a

✓ Vocabulary Test A7.13 CC.4.Rlit.4; CC.4.Rinf.4; CC.4.L.6

✓ Spelling Test: Words with oo; Words with Silent Consonants T445i CC.4.Rfou.3; CC.4.L.1.g; CC.4.L.2; CC.4.L.2.d

✓ Writing, Revising, and Editing Test A7.14–A7.15 CC.4.W.10; CC.4.L.1; CC.4.L.3

Reteaching Masters RT7.3–RT7.6

# Week 2 Learning Stations

## Speaking and Listening

### Option 1: When? Where?



**When? Where?**

- Look at the **Language Builder Picture Cards** of track and field events.
- Plan a foot race in your town. Pretend that it is a fundraiser for the science museum. Give the race a name. Brainstorm details.

**Talk Together**

Hold a press conference. Announce the upcoming race. Take turns asking and answering questions about the race.

Where is \_\_\_\_\_?  
It's \_\_\_\_\_?  
Where are \_\_\_\_\_?  
They're \_\_\_\_\_?

When is the "Techno Race" Base?  
It's on the first Saturday in May.

Where are the horses going to go?  
They're going to make a 26.2 mile loop through downtown.

What year?  
100-meter race  
high jumper  
long jump  
hurdles

Unit 7 Part 1 42

### PROGRAM RESOURCES

Language and Literacy Teamwork Activities: Card 42

Digital Library: Language Builder Picture Cards E79–E83

Pose and Respond to Questions CC.4.SL.1.c

### Option 2: Learn About Space



**NGReach.com Student Resources**

Have partners paraphrase information from a video about space. To view the video, have students go to Resources > Unit 7 > Learning Stations > Week 2 > Solar System 101.

- As partners watch, Partner 1 pauses the video and paraphrases an important fact or detail from the beginning.
- Partner 2 resumes play and then pauses the video and paraphrases the next major fact.
- Partners continue until video ends.

Paraphrase Visual and Oral Information CC.4.SL.2

## Language and Vocabulary

### Key Words

accelerate · average · comparison · conclusion  
distance · height · measure · motion · rate  
scale · solve · speed · synthesize

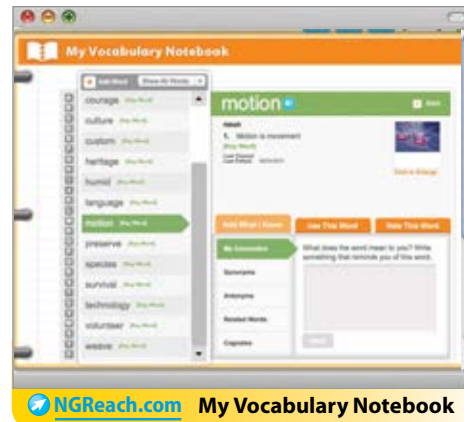
### Option 1: Vocabulary Games



**NGReach.com Online Vocabulary Games**

Acquire and Use Conversational, General Academic, and Domain-Specific Words CC.4.L.6

### Option 2: My Vocabulary Notebook



**NGReach.com My Vocabulary Notebook**

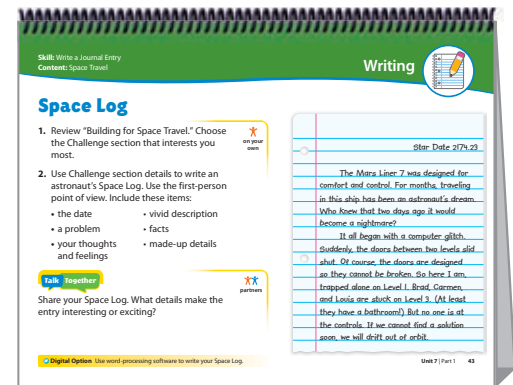
Have students expand their word knowledge.

- Under Add More Information > Use This Word > Restate the Definition, have students use their own words to restate definitions of the Key Words.
- Under Add More Information > Use This Word > Write a Sentence, have students write sentences using Key Words and words with silent consonants.

Acquire and Use Conversational, General Academic, and Domain-Specific Words CC.4.L.6

## Writing

### Option 1: Space Log



**Space Log**

- Review "Building for Space Travel." Choose the Challenge section that interests you most.
- Use Challenge section details to write an astronaut's Space Log. Use the first-person point of view. Include these items:
  - the date
  - a problem
  - your thoughts and feelings
  - vivid description
  - facts
  - made-up details

**Talk Together**

Share your Space Log. What details make the entry interesting or exciting?

**Digital Option** Use word processing software to write your Space Log.

Unit 7 Part 1 43

### PROGRAM RESOURCES

Language and Literacy Teamwork Activities: Card 43

Write Narratives, Using Descriptive Details and Event Sequences  
Establish a Situation

CC.4.W.3  
CC.4.W.3.a

### Option 2: Describe a Planet



Have students respond to this prompt:

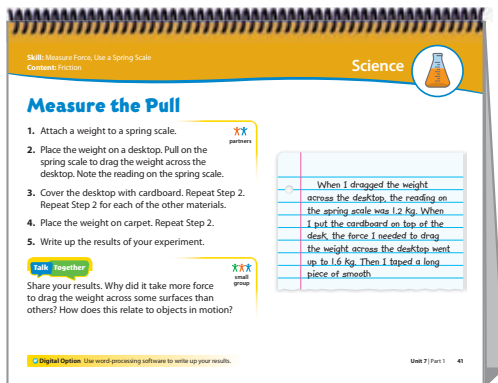
Imagine you could travel to any planet at all, real or imaginary. Which planet would you choose? Describe what that planet is like, and tell what you might expect to find there. Explain why, in your opinion, this planet is the best one to visit.

Write Opinions on Topics  
Introduce the Topic, State an Opinion, and Create a Structure

CC.4.W.1  
CC.4.W.1.a

## Cross-Curricular

### Option 1: Measure the Pull



### PROGRAM RESOURCES & MATERIALS

**Cross-Curricular Teamwork Activities: Card 41**  
different-sized classroom objects • string • 1-kg weight • spring scale • cardboard • carpet or coarse cloth

Recount an Experience CC.4.SL.4

### Option 2: Study Human Habitats



### MATERIALS

colored markers

Have student pairs design a space habitat.

- Have students brainstorm and discuss the type of home people would need if they lived in space.
- Then have students design, draw, and label a diagram of their “space habitat.”
- Have pairs present their designs to the class and explain why their habitat would be a good place to live in space.

Explain Ideas and Understanding CC.4.SL.1.d

## Reading

### Option 1: Read About Extreme Human Habitats

One of the most extreme places to live is inside a submarine!

### MATERIALS

encyclopedia • library books • online resources

Have students use multiple library and online resources to research an extreme human habitat, such as a submarine or Antarctic station.

Have students use at least two sources to prepare oral presentations on the extreme habitat they read about. Students then present their findings to the class.

Integrate Information from Two Texts CC.4.Rinf.9

### Option 2: Author Study

Anastasia Suen

	Facts	Opinions
Man on the Moon		
Wired		

### MATERIALS

books by Anastasia Suen, such as *Doctors Without Borders*, *Man on the Moon*, *The Story of Soccer*, and *Wired*

As students read multiple books by Anastasia Suen over the week, have them develop a fact and opinion chart.

Then have partners use their charts to discuss the author’s use of facts and opinions in each book. Have students explain how they know whether a statement is a fact or an opinion.

Students may wish to select from additional recommended books. See **Independent Reading** on page SG68.

Read and Comprehend Informational Texts CC.4.Rinf.10

## Intervention

### Option 1: Phonics Games



Apply Phonics and Word Analysis Skills CC.4.Rfou.3  
Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words CC.4.Rfou.3.a

For Reteaching Masters, see pages RT7.3–RT7.6.

### Additional Resources

#### Reach into Phonics



Lessons 102, 103, and 104

Use Context to Confirm or Self-Correct Word Recognition and Understanding CC.4.Rfou.4.c

#### ESL Kit



ESL Teacher’s Edition pages T446a–T454h

# Week 2 Daily Spelling & Word Work

## OBJECTIVES

**Thematic Connection: Moon, Space, and Stars**

- ✔ Spell Words with *oo*: *book, good*; Silent Consonants
- ✔ Use Commonly Misspelled Words Correctly

## SUGGESTED PACING

DAY 1	Pretest
DAY 2–4	Daily Practice Options
DAY 5	Test

### Spelling Pretest

Day 1



### Spelling Test

Day 5



## Spelling Words

Use these words and sentences for the weekly Spelling Pretest and Spelling Test.

### Words with *oo*; Silent Consonants

1. acknowledge	To <b>acknowledge</b> that I made a mistake on my science report, I admitted it and then corrected it.
2. align	Those stars <b>align</b> to form a straight line.
3. bombs	I wonder if stars can burst in space like exploding <b>bombs</b> .
4. climbing	The astronaut is <b>climbing</b> down a ladder to step onto the moon.
5. crooked	I bent the ring around my model of Saturn, so now it looks <b>crooked</b> .
6. design	It wasn't easy to plan and <b>design</b> a space model.
7. fasten	We <b>fasten</b> objects inside the spacecraft so they don't float away.
8. gnash	In the science fiction story, angry little space creatures grind and <b>gnash</b> their metal teeth.
9. handbook	The spaceship kit includes a <b>handbook</b> of instructions.
10. know-how	They have the skill and <b>know-how</b> to build a space shuttle.
11. numbness	Can you feel things in space, or do you only experience <b>numbness</b> ?
12. outlook	I tend to be cheerful and look at all that's great about space exploration, because I have a positive <b>outlook</b> .
13. withstood	The outside of the rocket was built so well that it <b>withstood</b> the effects of very high heat on take-off.
14. wrathful	In myths about the planets, some characters are peaceful, but others are angry and <b>wrathful</b> .
15. wreckage	When our paper rocket fell apart, the <b>wreckage</b> fell here and there like crumpled pieces of litter.

### Watch-Out Words

16. recent	Is this a <b>recent</b> article about the launch, or is it out of date?
17. resent	Do some astronauts <b>resent</b> not getting to go to space?
18. thorough	They did a complete, <b>thorough</b> check of the shuttle.
19. through	The astronauts had to go <b>through</b> many tests.

### Vowel *oo* in *Book*

Day 2



Option 1

### MATERIALS

index cards, 15 per pair of students • colored pencils

### Teach

Display the word *crooked*, circle *oo*, and pronounce the word. Explain: *The letters oo can make the vowel sound you hear in book.* Say the words *stood, prowl, look, book, hook, hoist*. Have students repeat the words and raise their hands if they hear the same vowel sound as in *book*.

### Prepare

- Assign each partner seven or eight of the first 15 spelling words, and have them draw a simple picture for each word, one picture per card.
- Have students write the word on the back of the card and underline any words that have the *oo* sound as in *book*.

### Play a Game

- Have students take turns holding up a picture from the pile.
- Have the partner guess the word it represents and then spell it. If the word is spelled correctly, students write a checkmark on the card.
- Play continues until each partner has correctly spelled each word.

Apply Phonics and Word Analysis Skills

CC.4.Rfou.3

Use Letter-Sound Correspondences, Syllabication Patterns, and

CC.4.Rfou.3.a

Morphology to Read Multisyllabic Words

CC.4.L.2.d

Spell Grade-Appropriate Words

### Context Pictures

Day 2



Option 2

### MATERIALS

print or online dictionaries • colored pencils

### Make a Drawing

- Have each student look up *crooked, handbook, outlook, and withstood* in a print or online dictionary.
- Tell students to check the spelling and pronunciation of each word and then write each word and one definition for the word.
- Have students draw silly pictures and use the words in captions.
- Suggest that students draw pictures of subjects whose names have the sound of *oo* in *book*, such as *football, cook, and firewood*.
- Have students underline the spelling words in their captions.



A cook with a crooked hat withstood the heat from the oven.

Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words

CC.4.Rfou.3.a

Consult References

CC.4.L.2.d



## Silent Consonants

Day 3



Option 1

### MATERIALS

index cards, 13 per pair of students • highlighters

### Teach

Display *design*, underline the *g*, and pronounce the word. Explain: *Some words have silent letters. For example, the consonant g is silent in design.*

Help students identify the silent consonants in other spelling words.

### Prepare

Have pairs of students collaborate to make a flash card for each of these words: *acknowledge, align, bombs, climbing, design, fasten, gnash, know-how, numbness, wrathful, wreckage, thorough, through.*

### Play a Game

- Tell Partner 1 to flash a card, and have Partner 2 identify the silent consonant.
- Then have Partner 1 hide the card and read it for Partner 2 to spell.
- After spelling each word, partners switch roles to repeat the process.
- Students get one point for identifying the silent consonant and another point for correctly spelling the word.
- After the game, have partners highlight the silent letter in each word.

Apply Phonics and Word Analysis Skills CC.4.Rfou.3  
Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words CC.4.Rfou.3.a

## Watch-Out Pairs

Day 3



Option 2

### MATERIALS

print or online dictionaries

### Write Silly Sentences

- Have each student use a print or online dictionary to check the spelling and meaning of each Watch-Out Word.
- Then have each student write a silly sentence that contains *recent/resent* and a silly sentence that contains *thorough/through*.
- Have students underline the Watch-Out Words in their sentences.
- Have students share their sentences in small groups.

I resent that we lost our recent game.

Use Frequently Confused Words CC.4.L.1.g  
Consult References CC.4.L.2.d

## Alphabetize

Day 4



Option 1

### MATERIALS

index cards, 19 per group

### Prepare

- Arrange small groups and have group members collaborate to write each spelling word on a separate card.
- Tell students that they will compete against the other groups.

### Play the Game

- Have each group shuffle and place their cards face down.
- At a signal, players turn over their cards and arrange them in alphabetical order as fast as they can.
- Have group members check one another's work and assign one point for each correctly alphabetized word.
- The winner is the group with the most points.
- If two or more groups tie, then the group that finished first with the most points wins.

Spell Grade-Appropriate Words

CC.4.L.2.d

## Compose a Skit

Day 4



Option 2

### Write and Perform a Skit

Have small groups write dialogue for a two-person skit using as many of the spelling words as possible. Any form of the spelling word may be used. After writing, have the groups pick actors and a narrator to read stage directions. Then have students perform their skits for the class.

Teacher: Our field trip to watch stars was fun. I'm proud of you for climbing up that mountain!

Matt: Thank you, I must acknowledge that the climb was tough. I'm glad we brought our handbooks on how to hike safely.

Lily: (laughing) Yes, at first the wind was like a wrathful animal -- angry and gnashing its teeth!

Matt: Good thing we had super powers -- or at least super warm jackets.

Lily: So we withstood it like super heroes!

Demonstrate Command of Spelling

CC.4.L.2

# Week 2 Daily Grammar

## OBJECTIVES

Thematic Connection: Moon, Space, and Stars

✔ Grammar: Use Comparison Adverbs

## COMMON CORE STANDARDS

Edit Writing

Demonstrate Command of Grammar

Use Knowledge of Conventions

CC.4.W.5

CC.4.L.1

CC.4.L.3

## Day 1

### PROGRAM RESOURCES

Comparison Adverbs: eVisual 7.10

Game: Practice Master PM7.9

### MATERIALS

index cards

## Teach the Rules

Use the suggestion on page T446b to introduce comparison adverbs. Then display eVisual 7.10. Explain: *Comparison adverbs compare actions.*

### Comparison Adverbs

- For some adverbs, add **-er** to compare two actions. This rocket soars **higher** than that one.
- If the adverb ends in **-ly**, use **more** or **less** to compare two actions. That star shines **more brightly** than the moon.  
The small star shines **less brightly** than the large one.

NGReach.com Comparison Adverbs: eVisual 7.10

## Play a Game

Review the instructions on Practice Master PM7.9 and have partners use it to play a game.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar Game**  
**Make a Face!**

Draw an oval on a separate sheet of paper. With a partner, take turns drawing a space creature's face by adding one feature, such as eyes or antennae, on the separate paper for each turn. Make your space creature as weird or silly as you like.

**Directions:**

- With your partner, take turns completing the sentences. Add **-er** to the adverb in parentheses or use **more** or **less**.
- If your partner agrees that your sentence is correct, add one feature to the face. If not, your partner corrects the sentence and adds a feature to the face.
- When the sentences are complete, your Martian will be, too!

- The Martians eat more noisily or less noisily than pigs. (noisily)
- They sleep more frequently or less frequently than bears in winter. (frequently)
- The creatures on Venus move slower than snails. (slow)
- They jump higher than frogs! (high)
- Some creatures on Jupiter fly faster than jets. (fast)
- Others drift through space more gracefully or less gracefully than swans. (gracefully)

For use with TE p. T445A. **PM7.9** Unit 7 | Moving Through Space

NGReach.com Practice Master PM7.9

## Differentiate

### EL English Learners

**ISSUE** Students are not used to adding a word part to an adverb.

**STRATEGY** Display these words: *late, early, fast, slow, high, soon*. Have students write each word on the front of an index card. Then help them write the *-er* form on the back. Then display the front of each card and have students spell the *-er* form. Have students check their spelling.

## Day 2

### PROGRAM RESOURCES

More Comparison Adverbs:  
eVisual 7.15

## Teach the Rules

Use the suggestion on page T451 to introduce more comparison adverbs. Then display eVisual 7.15.

### More Comparison Adverbs

- For some adverbs, add **-est** to compare three or more actions. This rocket soars the **highest** of all the rockets.
- If the adverb ends in **-ly**, use **the most** or **the least** to compare three or more actions. The large star shines **the most brightly** of all the stars.  
The small star shines **the least brightly** of all the stars.
- A few adverbs have special forms for comparing things: (well) better best  
(badly) worse worst This tool works the **best** of all.  
This time, I slept **worse** than before.

NGReach.com More Comparison Adverbs: eVisual 7.15

## Generate Sentences

Have students apply the grammar skills. Explain:

- Write a sentence about a planet. Use an adverb with *-est*.
- Write two sentences about a trip to the moon. In one sentence, use an adverb with the most or the least. In the other, use a comparison adverb that has a special form.

For Writing Routine 3, see page BP49.

## Differentiate

### AL Above Level

**ISSUE** Students question how sentences can show comparisons of actions when there is only one verb, or action, in the sentence.

**STRATEGY** Explain that the second action is understood: "*This time I slept worse than before,*" means, "*This time, I slept worse than I slept before.*" Have students write their sentences to include the second action.



Day 3

PROGRAM RESOURCES

Game: Practice Master PM7.10

MATERIALS

large paper clips

Teach the Rules

Use the grammar lesson on **Anthology** page 453 to review comparison adverbs. Then copy and display the chart below to extend the concepts.

<ul style="list-style-type: none"> <li>Use the word <b>than</b> after an adverb that <u>compares two actions</u>.</li> </ul>	<p>Mercury travels through space <u>faster than</u> Earth.</p> <p>Venus rotates <u>more slowly than</u> Earth does.</p>
<ul style="list-style-type: none"> <li>Use the word <b>of</b> after an adverb that <u>compares three or more actions</u>.</li> </ul>	<p>Mercury orbits <u>closest to the sun of</u> all the planets in our solar system.</p>

Play a Game

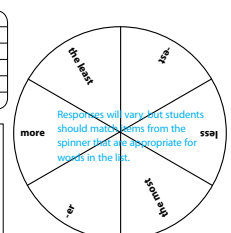
Distribute **Practice Master PM7.10** and one large paper clip to each pair of students. Have partners use the Practice Master to play the game.

Grammar: Game

### Match and Make Comparisons

- Take turns with your partner. Spin the spinner. Look at the letters or words you landed on.
- Choose an adverb from the box that works with what you landed on. Form a comparison adverb. For example: -est + late = latest.
- Use your comparison adverb in a sentence.
- If your partner agrees that your sentence is correct, score 1 point. If not, your partner takes a turn.
- Continue until all the words in the box have been used correctly to make comparison adverbs. The player with more points at the end is the winner.

bravely  
awkwardly  
late  
politely  
quietly  
fast



**Make a Spinner**

- Put a paper clip over the center of the spinner.
- Touch the point of a pencil on the middle of the wheel and through the loop of the paper clip.
- Spin the paper clip to make a spinner.

Responses will vary, but students should match terms from the spinner that are appropriate for words in the list.

PM7.10 Unit 7 | Moving Through Space

Differentiate

BL Below Level

**ISSUE** Students have trouble deciding when to use *more/less* or *the most/the least* and when to add *-er/-est*.

**STRATEGY** Point out that most short adverbs, especially adverbs with one syllable, use *-er* or *-est*. Have students chant “high, higher, highest; fast, faster, fastest,” and so on for similar adverbs.

Have students repeat the process using adverbs ending in *-ly* and adding *more than*, *the most of* and *less than*, *the least of*. For example: “swiftly, more swiftly than, the most swiftly of all.”

NGReach.com Practice Master PM7.10

Day 4

PROGRAM RESOURCES

Grammar and Writing: Practice Master PM7.15

Grammar and Writing

Distribute **Practice Master PM7.15**. Have students use editing and proofreading marks to correct errors with comparison adverbs.

Name \_\_\_\_\_ Date \_\_\_\_\_

Grammar: Grammar and Writing

### Edit and Proofread

Choose the Editing and Proofreading Marks you need to correct the passage. Look for correct usage of adverbs with the following.

- er and -est
- more/less and the most/the least
- special forms

Editing and Proofreading Marks	Symbol	Action
^	^	Add.
↖	↖	Take out.
↔	↔	Move to here.
,	,	Add comma.
.	.	Add period.

Do you ever imagine traveling fastest than a flash to reach Mars? I have been dreaming about that, but last night I dreamed the most vividly about Mars than I had the night before. In my dream, my rocket ship traveled through space quickly than a real spacecraft. It orbited most well but landed the least gentlest of all the rocket ships arriving on Mars that night.

I stood in a strange landscape. A dust storm blew most fiercely than a blizzard. Huge piles of sand rose higher than a house. Suddenly many small rocks were flying toward me. The one moving the less swiftly of all was coming right at my head. I tried to duck, but I moved more slowly than a spoon in molasses. Fortunately, then I woke up. I was exhausted. I had slept more badly than any night in my life!

For use with TE p. T445 PM7.15 Unit 7 | Moving Through Space

NGReach.com Practice Master PM7.15

Day 5

PROGRAM RESOURCES

Writing, Revising, and Editing Test: Assessment Masters A7.14–A7.15

Review and Assess

Display these adverbs. Have partners change each adverb to compare two actions. Then have students write three sentences, each with one of the comparison adverbs.

timidly well fast eagerly sweetly

Display these adverbs. Have partners change each adverb to compare three or more actions. Then have students write three sentences, each with one of the comparison adverbs.

soon quickly carefully high excitedly

Administer the **Writing, Revising, and Editing Test**.

# Week 2 Daily Writing Skills

## OBJECTIVES

**Thematic Connection: Moon, Space, and Stars**

✔ Break Up Long Sentences

## COMMON CORE STANDARDS

Demonstrate Command of Grammar  
Produce Complete Sentences

CC.4.L.1  
CC.4.L.1.f

### Analyze Sentence Length

Day 1



## PROGRAM RESOURCES

Long Sentences Paragraph: eVisual 7.11

Improved Paragraph: eVisual 7.12

## Teach the Skill



### Long Sentences Paragraph

For years, scientists said our solar system had nine planets—Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto—but in 2006 they decided that Pluto should be called a dwarf planet, so now most scientists say there are only eight planets in our solar system. They believe Pluto is too small and doesn't have the kind of orbit a regular planet has. Also, regular planets are much bigger than their moons, while Pluto's moon is only a bit smaller than Pluto.

NGReach.com Long Sentences Paragraph: eVisual 7.11



**INTERACTIVE WHITEBOARD TIP:** Underline the sentence that is too long.

Read the paragraph aloud. Then explain the skill: *Sometimes sentences can ramble on and be too long. These are not run-on sentences—their grammar and punctuation are correct, but the reader can get lost. Listen to the sentences as I read them again. Which one seems confusing and too long?*

Demonstrate how to recognize and correct a sentence that is too long: *Reading sentences aloud can help you tell if they should be shortened. The first sentence is much too long. I'll break it after the list of planets to start a new sentence. Although the last sentence in the paragraph is long, it isn't confusing. The words also and while help show how the different ideas relate to each other.*



### Improved Paragraph

For years, scientists said our solar system had nine planets—Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto. However, in 2006 they decided that Pluto should be called a dwarf planet. Now, most scientists say there are only eight planets in our solar system. They believe Pluto is too small and doesn't have the kind of orbit a regular planet has. Also, regular planets are much bigger than their moons, while Pluto's moon is only a bit smaller than Pluto.

NGReach.com Improved Paragraph: eVisual 7.12



**INTERACTIVE WHITEBOARD TIP:** Circle the spots where new breaks were added.

### Break Up Long Sentences

Day 2



Option 1

## Introduce

Copy and display the following sentences:

1. We studied the solar system last week in school, and then we made model solar systems using tennis balls, ping pong balls, string, and wire hangers, and next we hung them around the room.
2. On summer nights my mom and I sit outside and try to identify different constellations, and if we don't see any, we like to make our own by tracing lines from star to star with our fingers.

## Practice

Have students work in pairs to decide how to break up the sentences.

When they are satisfied with their rewrites, have each pair share and compare their new sentences with another pair of students.

### Break Up Long Sentences

Day 2



Option 2

## MATERIALS

timer

## Introduce

Tell students that they will have 15 minutes to write an imaginary letter from Pluto to the sun, explaining why Pluto should still be considered the ninth planet in our solar system.

## Practice

Tell students that in the letter they are to give reasons why Pluto should not be changed to a dwarf planet. The reasons may be factual, or students may give imaginative reasons.

Have students exchange papers with a partner and suggest ways to break up sentences that are too long. Remind students that a good way to check for overly long sentences is to read them aloud.

Dear Sun,  
Being part of the solar system is very important to me. Although I am a tiny planet, my orbit is more regular than you might think. Besides, I've been a planet all my life!





## SUGGESTED PACING

DAY 1 Teach the Skill  
DAY 2–4 Daily Practice Options  
DAY 5 Review and Assess

### Long Sentences with “And” Day 3 Option 1

#### Introduce

Explain that you can sometimes tell a sentence is too long if it has too many “ands.”

#### Practice

Have students form two groups. Ask one group to copy the third paragraph on page 434. Have the other group copy the first paragraph on page 435. Both groups should replace each period in their paragraphs with the word *and*. Then have the groups exchange papers and edit them for sentence length.

### Eliminating Run-Ons Day 3 Option 2

#### PROGRAM RESOURCES

Eliminating Run-Ons: eVisual 7.17

#### Introduce

Display **eVisual 7.17**. Have students identify the long sentence that is okay as is (“In the city . . .”) and edit the run-on sentence (“Because there are fewer buildings . . .”).



#### Eliminating Run-Ons

Are there more stars in the country than there are in the city? It may seem that the country has more stars, but that isn’t really true. In the city, there are more streetlights and lights on buildings, so this makes it harder to see the stars in the night sky. Because there are fewer tall buildings and streetlights in the country, the night sky seems darker and it is easier to see the stars in the night sky, but the number of stars is the same no matter where you are, even though you can’t see them.

**Eliminating Run-Ons: eVisual 7.17**



**INTERACTIVE WHITEBOARD TIP:** Highlight the run-on sentence.

#### Practice

Have each student individually rewrite the run-on sentence twice, taking a different approach to revising it each time. Then have students gather in groups of three and have each student share both of their revisions.

Have the group discuss all six possible revisions and decide together which revision the group likes best. Then, have the group share the original run-on sentence and their favorite revision with the class.

### Revise for Run-Ons Day 4

#### Introduce

Explain that students should try to be aware of sentences in their writing that are too long.

#### Practice

Have students choose a piece of writing from their Weekly Writing folder or from a Learning Station, such as the Space Log. Tell students to exchange writing with a partner and discuss and correct any long sentences that would be more effective if broken into shorter ones.

### Review and Assess Day 5

#### PROGRAM RESOURCES

Writing, Revising, and Editing Test: Assessment Masters A7.14–A7.15

#### MATERIALS

timer

#### Review the Skill

Provide the following prompt.

You and your family attended an overnight star-gazing event in a community park. Write a paragraph for your school paper that tells about the event.

Set the timer for ten minutes and direct pairs of students to plan and write a paragraph in response to the prompt.

When the timer rings, set the timer for another five minutes. Tell students to circle sentences that are too long, break them up, and then rewrite the paragraph.

Administer the **Writing, Revising, and Editing Test**.

## OBJECTIVES

**Thematic Connection: Moon, Space, and Stars**

- Use Context to Determine Word Meanings
- Explain Concepts in Text


## PROGRAM RESOURCES

**TECHNOLOGY ONLY**

Read Aloud: eVisual 7.9

## MATERIALS

timer • dictionary



## WARM-UP

Have pairs of students choose a photograph or image from one of their **Small Group Reading** books. Ask them to share the photograph or image with the class and explain what they like about it.

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *accelerate*.

For **Writing Routine 1**, see page BP47.

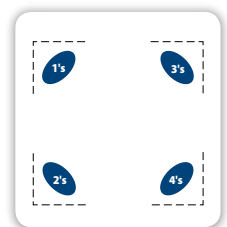
## Academic Talk

### 1 Discuss the Big Question

Remind students that when they explain a concept, thinking about the situation and audience can help them decide whether to use formal or informal language. Model the process: *When I talk about big ideas with my friends, I use informal speech. For example, I might say, "Wow, astronauts sure are amazing to go to the moon." When I speak formally, I use precise language and a more serious tone. I might say, "I think that astronauts are courageous to travel in a spacecraft to the moon."*

Use **Corners** to have students discuss the Big Question in relation to the reading for Week 1. Remind students to use informal language when speaking in their groups. Have students use informal language to give examples from the readings that show what it takes to explore space. Have students use formal language to share examples with the class.

For **Corners**, see page BP45.



**Corners**

## Vocabulary Strategy

### 2 Multiple-Meaning Words Anthology page 446

Explain: *When you encounter a word that has multiple meanings, you can use context clues to help you determine the correct meaning.* Review the four kinds of context clues (definition, restatement, antonyms/synonyms, and examples).

Project **Student eEdition** page 446 and read aloud the instructions and sample. Discuss the two meanings shown for *rate*, and explain how *travels* and *slower* help determine the correct meaning for the word as used in the sentence.

Model the skill using the second meaning for *rate*. Write: We will not pay full price if there is a student rate for admission to the Air and Space Museum. Explain: *I see the words price and admission in the sentence. These words are synonyms for fee, the second meaning of rate.* Repeat the strategy with two other examples of multiple-meaning words, such as *trade, mold, current, or legend*.

See **Differentiate**

## COMMON CORE STANDARDS

### Reading

Refer to Details and Examples When Explaining Text	CC.4.Rinf.1
Explain Concepts	CC.4.Rinf.3
Read with Fluency to Support Comprehension	CC.4.Rfou.4

### Writing

Draw Evidence from Texts	CC.4.W.9
Apply Grade 4 Reading Standards	CC.4.W.9.b

### Speaking and Listening

Explain Ideas and Understanding	CC.4.SL.1.d
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### Language and Vocabulary

Determine Meanings of Multiple-Meaning Words	CC.4.L.4
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## Multiple-Meaning Words

Some words have more than one meaning. You can use context to figure out the correct meaning.

**Rate** is a **multiple-meaning word**. In the sentence below, **rate** means speed. You can use the words *travels* and *slower* as clues to the meaning.

The **rate** at which sound travels is slower where the air is thin and cold.

**rate** (rāt) *noun* 1. the speed at which something moves 2. a fee charged for a service



### Try It Together

Read the passage. Then answer the questions.

Just push the **switch** on a flashlight. Instantly, a **beam** will flash out at the amazing speed of 299,338 kilometers per second (186,000 miles per second).

1. What is the best definition for **beam** in this passage?

- A a long piece of wood or metal
- B the widest part of a ship
- C the bar on a balance scale
- D a ray of light

2. What is the best definition for **switch** in this passage?

- A a section of railroad track
- B an on/off button
- C a change
- D a fast, jerking motion

446

Anthology page 446

STUDENT  
TECHNOLOGY



Student  
eEdition



Resources

NGReach.com

### 3 Try It Together Anthology page 446

Read the directions aloud and have partners work together to answer the questions. (question 1: D; question 2: B)

## Check & Reteach

**OBJECTIVE:** Use Context to Determine Word Meanings ✓

As students figure out meanings for the words *switch* and *beam*, determine whether students are able to use context clues correctly.

If students have difficulty, have them follow these steps:

- Eliminate all definitions that do not fit with the topic of the sentence.
- Insert the most important words from remaining definitions in place of the multiple-meaning word. Choose the definition that makes the most sense.

## Weekly Writing

Gather students' writing throughout the week.

- ✓ Daily Writing Skills Practice (T445m–T445n)
- ✓ Power Writing (T445o, T446c, T451a, T453a, T453e)
- ✓ Writing (T446b, T451, T453, T453d, T453g)
- ✓ Writing Project (T453i–T453l)

## Differentiate

### SN Special Needs

**ISSUE** Students have difficulty focusing on a multiple-meaning word in the passage.

**STRATEGY** Have students use their index fingers to point to the multiple-meaning word and track the answer choices.

### BL Below Level

**ISSUE** Students cannot read the passage and answer choices independently.

**STRATEGY** Have more proficient students read aloud the passage and answer choices. Have partners track the text as the pair works together to answer the questions.

## Fluency

**Model Intonation** Explain the concept: *Fluent readers read with correct intonation. They raise and lower their voices as they read text. When you read a sentence that's not a question, let your voice go down at the end.* Model intonation with sentences from the **Read Aloud**.

## Comprehension

## 4 Explain Scientific Text ✓

Review the definition of scientific text. Explain that to understand and explain a scientific text, a reader can use the introduction, headings, and conclusion.

Display **eVisual 7.9** and read aloud the title and introduction. Explain: *The title and first paragraph tell me this article is about travel to Mars.* Point out that this is a strong introduction because it immediately engages the reader's imagination. Reread the last sentence in the first paragraph and explain: *One challenge of space travel is being in an enclosed space for a long time. I think the article will focus on this concept. As I read the text, I will look for details that explain this concept.* Read the first heading and discuss with students what they think this section will be about.



## Read Aloud

Scientific Text

## The Mars500 Project

Imagine launching into space for the long journey to Mars. After more than 200 days you reach the planet's orbit. You have traveled more than 35 million miles at high **speeds**. Traveling such a long **distance** in close confinement would be challenging, both mentally and physically.

## Mimicking the Space Experience

Understanding the challenges that astronauts will face is an important part of a successful mission to Mars. In June 2010, the European Space Agency and the Russian Institute for Biomedical Problems set out to study the effects as part of the Mars500 Project. The study explored the capacity of astronauts to withstand being isolated, or cut off, from Earth for long periods of time in close confinement.

Six volunteers agreed to live for 520 days in an isolation building. The building included a number of interconnected structures. The living quarters, a medical module, and a storage module made up the main structures. The building also included a Mars landing module simulator and a module that resembled the surface of Mars. During the first and last month of the "flight," the volunteers had voice communication with the "control center." For the remainder of the study, communication was limited to text messages.

## Studying the Effects of Isolation and Confinement

The building copied all but the weightlessness astronauts would experience in space. The volunteers lived and worked as they would on an actual mission to Mars. They kept the modules and equipment in working order and conducted experiments. They also monitored each other's physical health, moods, sleep patterns, and working relationships.

It took many people years to design, develop, and monitor this project. The study's designers hope that the data will one day help keep astronauts healthy and safe on long missions to Mars.



Have partners identify details that support each main idea in the text. Have them assess how well the concluding statement summarizes the focus of the article.

See **Differentiate**

## Check & Reteach

**OBJECTIVE:** Explain Concepts in Text ✓

Monitor students' understanding of concepts in the **Read Aloud** by asking questions, such as: *What was the isolation building? Why were the volunteers there?*

If students have difficulty, review explaining scientific text. *First, look at the title and the headings. Read the introduction and conclusion for clues about the text's main ideas. Identify the paragraph's main idea and relate it to the section heading. Then find supporting details.*

Reread the second paragraph of "The Mars500 Project." Help students use the heading to help them identify the main idea of the paragraph and details that support it.

## Writing

### 5 Write About Ideas in Scientific Text

Model writing how to explain ideas presented in a scientific text.

#### Think Aloud

*From the title and introduction, I see the article is about traveling to Mars.*

*The first section is about a study of being in a small space for a long time.*

#### Write

Scientists plan for astronauts to travel to Mars one day. But the trip will be challenging.

Scientists studied the effects of isolating astronauts in a small space for a long time.

For **Writing Routine 2**, see page BP48.

Have partners write paragraphs to explain concepts in "What's Faster than a Speeding Cheetah?" and then add them to their Weekly Writing folders.

## WRAP-UP

Have students imagine that they are starting to read a book on Mars rovers. Ask: *What strategies would you use to understand the book's main ideas?* (Possible responses: I'd look at the illustrations because I'd want to see how a possible Mars rover would be different from previous space vehicles. I'd look at the chapter titles because that would tell me what information the book contained and how it was organized.)



## Daily Language Arts

### Daily Spelling and Word Work ✓

Pretest page T445i

### Daily Grammar ✓

Write: early/earlier, fast/faster, easily/more easily. Explain that the second word in each pair is a comparison adverb. Use page T445k to teach comparison adverbs.

### Daily Writing Skills ✓

Write: Living and working in space, even for a short period of time, is an exhausting and exhilarating experience, and is one that more people have each year, including non-astronauts, such as teachers. Explain that this is an example of a long sentence that could be improved by breaking it into smaller sentences. Then use page T445m to practice breaking up long sentences.

## Differentiate

### SN Special Needs

**ISSUE** Students have difficulty identifying key concepts of the text.

**STRATEGY** Have students read aloud the title to identify the topic of the text as a whole. Have them read aloud each heading to identify the topic of each section. Then help students find sentences in each section that tell about the heading.

### AL Above Level

**ISSUE** When reading for information, students read too rapidly and overlook specific facts or ideas.

**STRATEGY** Have students complete a K-W-L-Q chart. Students write: what they already know about the topic (column 1, before reading); what they want to learn (column 2, before reading); what they learn (column 3, during reading); more questions they have (column 4, after reading).

K	W	L	Q
People cannot live on Mars.	What would it be like to land on Mars?		

### OBJECTIVES

#### Thematic Connection: Moon, Space, and Stars

- ✔ Use Context to Determine Word Meanings
- ✔ Draw Conclusions to Comprehend Text
- ✔ Explain Concepts in Text

### MATERIALS

timer

### Power Writing

Have students write as much as they can as well as they can in one minute about the word *solve*.

For **Writing Routine 1**, see page BP47.

### COMMON CORE STANDARDS

#### Reading

Refer to Details and Examples When Explaining Text	CC.4.Rinf.1
Explain How Author Uses Reasons and Evidence	CC.4.Rinf.8
Read with Fluency to Support Comprehension	CC.4.Rfou.4
Read with Purpose and Understanding	CC.4.Rfou.4.a

#### Writing

Draw Evidence from Texts CC.4.W.9

#### Language and Vocabulary

Determine Meanings of  
Multiple-Meaning Words CC.4.L.4

## WARM-UP

Ask students to imagine they are astronauts traveling to Mars. Have students discuss comfort and safety features they would like on their spaceship.

## Vocabulary Strategy

### 1 More Multiple-Meaning Words ✔

Remind students to find context clues for multiple-meaning words in examples, definitions, paraphrases, and the word's part of speech. At the board, write two definitions of *pound*: 1. noun: a unit of weight; 2. verb: to hit something hard.

Write: Did someone pound on the door? Model: *In this sentence, pound is an action verb, so I know that the second meaning is being used.*

Write *look* and two definitions: 1. verb: to use the sense of sight; 2. noun: appearance. Write: He has a strange look. Have partners use part of speech to determine the definition in context (meaning 2). Use another type of context clue and say: *The scale shows that the baby weighs seven pounds.* Have students paraphrase to determine whether *scale* refers to a device for weighing or a fish's outer covering. Continue the practice by having students work with additional multiple-meaning words, such as *break* and *spring*.

### Check & Reteach

#### OBJECTIVE: Use Context to Determine Word Meanings ✔

Monitor students' ability to use context clues to determine word meaning.

If students have difficulty, write these sentences:

- The climbers hope to *scale* the mountain before the first snowfall.
- It is hard to have to practice *scales* on the piano every day.

Read the first sentence. Explain: *I need to figure out the meaning of scale from context clues.*

*I ask myself: Is scale a person, place, or thing? (No.) Does scale tell about an action? (Yes.) What does the sentence tell me about scale? (You can scale a mountain.)* Ask students what *scale*

means. (Possible response: to climb) Have groups use context clues to determine the meaning of *scale* in the second sentence and report their process to the class.

## Academic Talk

### 2 Preview and Predict

Remind students: *When you begin to read a science report, you preview it by looking at the features, such as the title, headings, photos, and captions.* Project **Student eEdition** page 447. Have students discuss the features and information they find.

**NATIONAL GEOGRAPHIC EXCLUSIVE**

**Connect Across Texts** You read a math article about the **speed** of moving objects such as space ships. Now read a report about designing spacecraft.

**Genre** A **science report** presents facts about a topic. Most reports have a title and an introduction that tells what the report is about. Often, a conclusion sums up the report.

# Building for SPACE TRAVEL

by Anastasia Suen

Imagine this task: Design a space **vehicle** that will also be a home for astronauts on a **mission** to planet Mars that could take months or years. For **architect** Constance Adams, this job was tough. She designed TransHab—a “transit habitat” where astronauts would live and work. Not surprisingly, Adams faced many challenges along the way.



1 Constance Adams worked with NASA, the U.S. space agency, to design TransHab.



sun Earth Mars

**In Other Words**  
**vehicle** craft  
**mission** trip  
**architect** building designer

**2** **Before You Move On**

- 1. Make Connections** Think about the length of time for this mission. What do you think the TransHab should be like?
- 2. Make Predictions** What design challenges do you think Adams faced?

447

**STUDENT TECHNOLOGY**

**e**  
Student eEdition

NGReach.com

Anthology page 447

## Reading

### 3 Reading a Science Report

**CONNECT ACROSS TEXTS** Project **Student eEdition** page 447. Ask students to recall what they learned about speed in outer space from the math article.

Ask: *If you were designing a spaceship, how could you use math to figure out what the ship should be like?* Then have a volunteer read aloud **Connect Across Texts**.

**GENRE** Read aloud the definition of the genre. Clarify: *A science report is not the same as a science experiment. A report tells about knowledge that scientists have gained about a topic. A report can include knowledge from many experiments.*

**SCIENCE BACKGROUND** Explain that there have been many NASA missions to Mars by unmanned orbiters and landers, but no manned missions so far. Today’s Mars missions are focused on finding evidence of water, which might indicate life on Mars in the past or present, and collecting samples of rocks and atmosphere.

### Read and Build Comprehension

- 1 Draw Conclusions to Comprehend Text** ✓ *What can you conclude about the people who design spacecraft for astronauts to live in?* (Possible responses: Some of them are architects; they work hard and face challenges.)
- 2 Explain Concepts in Text** ✓ *What difficulties might there be in designing a spacecraft where astronauts live and work for months at a time?* (Possible response: Astronauts require enough room to eat, sleep, bathe, dress, store scientific equipment, and conduct experiments, all within limited space.)

## Fluency

**Practice Intonation, Accuracy, Rate** As students read, monitor their intonation, accuracy, and rate.

### Answers Before You Move On

- 1. Make Connections** Possible response: I read that the missions could take months or years! I think that is a long time. I decide that TransHab should have everything the astronauts would use on Earth during a year.
- 2. Make Predictions** Possible responses: how big to make it, how to make it strong enough for space, what to put in it for the astronauts

**Best Practices**

**Encourage Elaboration** As students talk, use specific prompts:

- *I like your idea about fitting things into different-sized spaces. What else can you say about that?*
- *Does the challenge of building TransHab remind you of anything in your own life? Why?*

**Mini Lesson****Verify Facts**

Remind students that facts are statements that can be proven true. Explain: *When reading, it is important to be able to identify reasons and evidence in text that support facts. It is also important to verify the evidence given by using reliable sources.*

Model identifying reasons and evidence to support the facts given on **Anthology** page 447. *The report tells me that a mission to Mars could take months or years. If I read ahead, I might find evidence for this later in the article. How else could I verify this fact?* (Possible response: I could look at the NASA Web site to see how long they estimate flights to Mars would take.)

Display **Student eEdition** page 448 and point out the sentence, *So TransHab had to be small enough to fit inside a shuttle's cargo area, and big enough for six astronauts to live in.* Have partners discuss how they would verify the information in this sentence. Ask: *Is there evidence on **Anthology** pages 447–449, or would you have to look elsewhere for evidence? Where would you look?* (Possible response: I could look at the rest of the article, and if the information is not there, I could look on a reliable Web site.)

Have partners scan through to the bottom of **Anthology** page 449 for facts and then discuss how they would verify each one.

**Read and Build Comprehension**

- 1 Cause and Effect** *Why did TransHab have to be inflatable?* (It had to be inflatable because it had to be small enough to fit into a space shuttle's cargo, and big enough for six astronauts to live in.)
- 2 Interpret Figurative Language** *With what ordinary Earth object does the author compare TransHab?* (a beach ball) *What are the similarities between the TransHab and a beach ball?* (They both can be inflated or deflated.)
- 3 Use Text Features** *How does the labeled picture help you understand what size TransHab had to be?* (Possible response: The photo and the label show the cargo area and how large it is compared with the space shuttle as a whole.)

See **Differentiate**



### Challenge 1 SIZE

NASA did not expect TransHab to launch into space on its own. A space shuttle was supposed to carry it into space. So TransHab had to be small enough to fit inside a shuttle's **cargo** area, and big enough for six astronauts to live in.

How would this be possible? Think about a beach ball. It's flat until you fill it with air. NASA asked Adams to use this idea for TransHab. Therefore, Adams had to design TransHab so it could be carried into space into its flattened state. Once it was in space, TransHab would be **inflated**. 1 2



3

A space shuttle was supposed to carry TransHab into space.

In Other Words  
**cargo** storage  
**inflated** filled with air

448

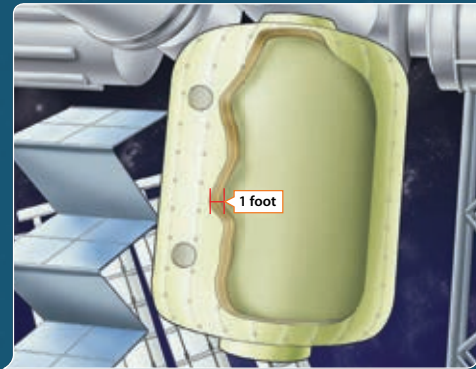
### Challenge 2 SAFETY

TransHab's soft outer surface created safety challenges.

Space is a very dangerous place. Chunks of ice and rock **speed** along at four miles a second. Some types of radiation, or energy traveling through space, can also hurt astronauts' bodies. Most spacecraft have a hard outside shell to protect it from damage and keep radiation out.

Adams's team had to figure out how strong to make TransHab's soft outer shell. They made a one-foot-thick skin that combined different materials. One very strong material was Kevlar, which is used in convertible cars.

5



6

TransHab's outer skin is one foot thick.

#### Before You Move On

- 1. Draw Conclusions** Based on the text, what can you conclude about the risks of space travel?
- 2. Compare/Contrast** How is TransHab different from a traditional spacecraft?

449

Anthology  
pages 448–449

## Read and Build Comprehension

- 4. Connect to Mathematics** *If the ice and rock speed through space at the **rate** of four miles per second, what is their **rate** in miles per hour?* (14,400 miles per hour)
- 5. Make Inferences** *What can you infer about how Adams and her team decided how thick TransHab's outer shell should be and what materials to use?* (Possible response: They tested different materials and different thicknesses; they made calculations based on what was known about the materials.)
- 6. Use Text Features** *In the illustration, why is part of TransHab's outer shell cut away?* (It shows the shell's thickness compared to TransHab as a whole.)

## Differentiate

### BL Below Level

**ISSUE** Students may have difficulty understanding the use of terms such as *TransHab* and *NASA*.

**STRATEGY** Pronounce the terms for students and explain the meaning of the abbreviation *NASA*. (*NASA* stands for National Aeronautics and Space Agency.) Discuss with students the meaning of *TransHab* stated on page 447 and the reasons for using these abbreviated terms.

### AL Above Level

**ISSUE** Students find ambiguous examples of fact and opinion, such as "Space is a very dangerous place" (page 449).

**STRATEGY** Encourage students to discuss whether the statement is fact or opinion, and to supply reasons and evidence that support this statement, such as evidence of equipment lost or damaged and casualties in space.

## Answers Before You Move On

- 1. Draw Conclusions**  Possible response: The text says there are dangers in space, such as radiation and speeding ice; my conclusion is that ships must be designed to protect astronauts.
- 2. Compare/Contrast** TransHab is inflatable; it is small enough to fit inside the space shuttle; its outer surface is soft.

**Best Practices**

**Encourage Participation** If a student does not have the background experience necessary to fully participate in a discussion, encourage him or her to ask questions.

**Differentiate****BL Below Level**

**ISSUE** Students have difficulty articulating reasons for their opinions.

**STRATEGY** Have students return to the selection and scan for sentences that shaped their opinions.

**SN Special Needs**

**ISSUE** Students have difficulty imagining hypothetical situations.

**STRATEGY** To make the question tangible, have students base answers on the picture on page 450.

**Read and Build Comprehension**

- 1 Explain Concepts in Text** ✓ *Why does TransHab need to feel like a home for the astronauts?* (It has to feel like a home because they will be living there for the whole length of a long voyage, lasting months or even years.)
- 2 Compare** *How is the force of gravity in space different from gravity on Earth?* (On Earth, gravity keeps people and objects on the ground; in space, other forces cancel out gravity, so people and objects float.)
- 3 Ask Questions** *After reading the report, what else would you like to learn about space travel?* (Responses will vary. Possible response: What is happening now with the NASA plan to send a mission to Mars?)

**Check & Reteach****OBJECTIVE: Draw Conclusions to Comprehend Text** ✓

Monitor students' ability to draw conclusions.

If they have difficulty, remind them that a conclusion is based on facts, knowledge, and reasons. Model drawing a conclusion in a real-life situation: *Suppose you get on your bicycle and notice that the front tire is flat. You know that air has gone out of that tire, that a bike needs both tires to function well, and that it would damage the bike to try riding it like this. What do you conclude?* (You need to pump air into the tire.) Then have partners reread the last paragraph of the selection and draw a conclusion from it. (Possible conclusions: The future of TransHab is not certain; there are many tasks that go into creating a new spaceship.)

**OBJECTIVE: Explain Concepts in Text** ✓

Monitor students' ability to determine the text's concepts.

If students have difficulty, ask: *What is the single most important thing you learned from this report?* (Possible response: TransHab is a spacecraft in which astronauts can live during long voyages, to places such as Mars.) Then have partners brainstorm other important ideas they learned in the report. (Possible responses: TransHab is inflatable; TransHab must be made with strong materials; TransHab is designed to be homelike.)

**Answers Before You Move On**

- 1. Use Text Features** The exercise room and bathroom on Level Three, the bedrooms on Level Two, and the kitchen and dining room on Level One help make TransHab like a real home.
- 2. Draw Conclusions** Possible response: Astronauts must get used to always holding on to something or, if they don't, floating around. They also must get used to objects floating around.

### Challenge 3 COMFORT

A trip to Mars would take a long time. Astronauts would have to live inside TransHab for years. They would need a real home in space. They would need places to eat, sleep, exercise, get care when sick, and have **privacy**. They also would need a group area for meetings and for celebrating special occasions like birthdays.

“We had to create a design for long-term living,” Adams explains. **1**

The diagram below shows Adams’s plan for TransHab. There are three levels with living areas. The top level is a tunnel entryway and exit.



- < **Level Four:**  
Entry and Exit Tunnel
- < **Level Three:**  
Exercise Room, Bathroom and Storage
- < **Level Two:**  
Control Room and Six Bedrooms
- < **Level One:**  
Kitchen and Dining Room

In Other Words  
**privacy** space to be alone

### Challenge 4 ZERO GRAVITY

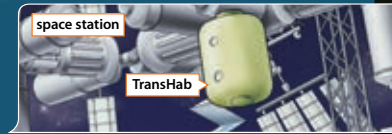
Gravity is the force that keeps you firmly on the ground. Other forces of **motion** can cancel out the force of gravity. This creates a condition called *zero gravity*. A zero-gravity environment presents a design challenge because it causes objects to “float.”

Adams attached furniture and other objects **securely** inside TransHab so astronauts could grab them to help themselves move around. She also used a pattern on the walls to help the astronauts tell up from down. **2**

After years of hard work, Constance Adams met all these challenges. However, space scientists must meet other challenges before they can launch a mission to Mars. Even if TransHab does not go to Mars, it could be a home for astronauts on a future **space station**. **3**



▲ Constance Adams tests what zero gravity is like.



▲ TransHab on a space station

In Other Words  
**securely** firmly  
**space station** place in space where astronauts work

#### ► Before You Move On

- 1. Use Text Features** Look at the diagram on page 450. Describe the areas that make TransHab a real home for astronauts.
- 2. Draw Conclusions** What can you conclude about zero gravity’s effects on astronauts?

## Writing

### 4 Write a Response

Have students write their response to the idea of living in a spaceship such as TransHab for months or years. Model: *I have mixed feelings about living in TransHab. On one hand, it would be an adventure, I would learn a lot, and I would be one of the few people who had ever done it. On the other hand, it would be very crowded, and I would miss my friends and family back on Earth.*

Remind students to give specific reasons for their opinions. Then have students add their responses to their Weekly Writing folders.

See **Differentiate**

### Daily Language Arts

#### Daily Spelling and Word Work ✓

Practice page T445i

#### Daily Grammar ✓

Read aloud the sentence: *The TransHab was designed well.* Point out that the comparison form of the word *well* is *better*. Then use page T445k to teach comparative adverbs.

#### Daily Writing Skills ✓

Point out ways to break up this sentence: *Designers of spacecraft try to design spaces that can survive the rigors of space travel and be a place where astronauts can live and work for months as they travel through space or even visit Mars.* Use page T445m to practice breaking up long sentences.

**WRAP-UP** Have groups discuss whether they think TransHab would be a comfortable and safe habitat to live and travel in, and why.

### OBJECTIVES

**Thematic Connection: Moon, Space, and Stars**

- ✔ Compare Facts and Opinions to Comprehend Text
- ✔ Grammar: Use Adverbs

### PROGRAM RESOURCES

#### PRINT & TECHNOLOGY

- Comparison Chart: Practice Master PM7.11
- Grammar Practice: Practice Master PM7.12
- Unit Concept Map: Practice Master PM7.1

#### TECHNOLOGY ONLY

- Grammar Passage: eVisual 7.16

### MATERIALS

timer, index cards

### Power Writing

Have students write as much as they can as well as they can in one minute about the word *height*.

For **Writing Routine 1**, see page BP47.

### COMMON CORE STANDARDS

#### Reading

- Refer to Details and Examples When Explaining Text CC.4.Rinf.1
- Read with Fluency to Support Comprehension CC.4.Rfou.4

#### Speaking and Listening

- Report on a Text CC.4.SL.4

#### Language and Vocabulary

- Demonstrate Command of Grammar CC.4.L.1
- Use Knowledge of Language and Conventions CC.4.L.3
- Acquire and Use Domain-Specific Words CC.4.L.6

## WARM-UP

Remind students that their readings this week have been about space travel. Post the terms *Opinion* and *Fact*, and then have volunteers call out an opinion about, or a fact from, the readings as you point to one term or the other.

## Vocabulary Review

### 1 Review Science and Academic Vocabulary

Project **Student eEdition** page 452 and point out the Key Words. Also display *comparison*, *synthesize*, *conclusion*, and *graph*. Chorally read all the words as a class. Pause after each word and have a volunteer give the definition.

Have groups write words on separate cards and place them face down in a pile. Have partners take turns picking a card and talking informally about the word's meaning. Have the other partner say a sentence using the word correctly.

## Review and Integrate Ideas

### 2 Compare Fact and Opinion ✔ Anthology page 452

Read aloud the introduction on **Student eEdition** page 452. Use the chart to discuss fact and opinion. Present statements of fact and opinion about space travel. Ask students to tell whether each is a fact or an opinion and explain why.

- *The distance from Earth to the moon is about 385,000 kilometers.* (fact: verifiable)
- *Flying to the moon would be fun.* (opinion: People have different ideas of fun.)

Have partners reread the science report aloud and review the scientific article. As students read, have them look for examples of facts and opinions. Have partners record the examples on **Practice Master PM7.11** and explain their reasoning.

### Check & Reteach

**OBJECTIVE:** Compare Facts and Opinions to Comprehend Text ✔

Monitor students' abilities to distinguish between facts and opinions during conversations. If students have difficulty, direct them to the fourth paragraph on **Anthology** page 435. Read the first sentence. Share your thinking process: *I cannot prove that a peregrine falcon is magnificent. Magnificent is a descriptive word that cannot be measured the way a word like fast can. These types of descriptive words can alert you that you are reading an opinion.* Also remind students that just because something is phrased as a statement doesn't make it a fact. For example: *Cheetahs are beautiful.* Then say: *Falcons are birds.* Ask: *Is this statement a fact or an opinion?* (fact) *How do you know?* ("Bird" is a category; I can check a reference book or a reputable Web site and learn whether a falcon is a bird or not.)



**Key Words**

accelerate	motion
average	rate
distance	scale
height	solve
measure	speed

## Compare Fact and Opinion

A **fact** is a statement that can be proved true. An **opinion** tells what someone thinks, feels, or believes. An author may include both facts and opinions, even in nonfiction. Work with a partner to complete the comparison chart. Discuss how you can tell if a statement is fact or opinion.

Write statements of fact in this column.

In this column, write statements that express opinions.

Comparison Chart

	Facts	Opinions
"What's Faster than a Speeding Cheetah?"	•	• A peregrine falcon is magnificent. •
"Building for Space Travel"	• Constance Adams helped design TransHab. •	•

**Talk Together**

Think about the math article and the science report. Use **Key Words** to discuss what it takes to explore space. Speak clearly and support your opinion.

**STUDENT TECHNOLOGY**



Student eEdition



Resources

NGReach.com

## Fluency

**Practice Intonation** As students reread the science report aloud, monitor and listen for correct intonation.

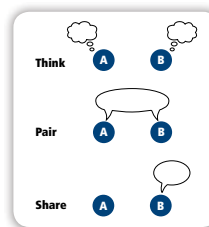
## Academic Talk

### 3 Talk Together Anthology page 452

Review the main points of "What's Faster than a Speeding Cheetah?" and "Building for Space Travel," focusing on the sections that are about motion and space travel. Have partners use a **Think, Pair, Share** to discuss the knowledge and technology it takes to explore space.

- Ask each partner to think about speed and motion and how they relate to the design of a space vehicle.
- Have partners exchange ideas.
- Have partners share their ideas with the class.

For **Think, Pair, Share**, see page BP46.



Think, Pair, Share

## Best Practices

**Encourage Respect** Encourage students to validate each others' points of view. Provide examples:

- *Good point.*
- *That makes sense.*
- *I can tell you've thought about this a lot.*

Name \_\_\_\_\_ Date \_\_\_\_\_

**Comparison Chart**

### Compare Fact and Opinion

Compare facts and opinions in the two selections.

	Facts	Opinions
"What's Faster Than a Speeding Cheetah?"	Possible responses: A peregrine falcon can dive faster than any creature can run. Sound travels in waves. A meteoroid is a space rock.	A peregrine falcon is magnificent. Possible response: ... you might be thinking that the meteoroid you saw was the fastest thing you could ever see.
"Building for Space Travel"	Constance Adams helped design TransHab. Possible response: One very strong material was Kevlar, which is used in convertible cars.	Possible response: A crew's comfort is not important on short missions.

Take turns with a partner. Ask each other questions about the facts and opinions found in the selections.

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**PM7.11** Unit 7 | Moving Through Space

## Differentiate

### BL Below Level

**ISSUE** Students have difficulty identifying adverbs such as *often*, *very*, and *really*.

**STRATEGY** Help students make a chart listing these adverbs and the kinds of words they modify. Guide them to recall or find two examples for each.

Adverb	Kind of Words Modified	Examples
often		
very		
really		

### AL Above Level

**ISSUE** Students need more challenging practice with adverbs.

**STRATEGY** Have students write sentences using these words as adverbs and adjectives: skillful/skillfully, amazing/amazingly, constant/constantly. Have them identify what each adverb and adjective modifies in each sentence they have written.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Practice**

### Exercising in Zero Gravity

**Grammar Rules Adverbs**

Use **adverbs** to describe and compare actions.

Describe 1 action	soon	carefully	
Compare 2 actions	sooner	more carefully than	less carefully than
Compare more than 2 actions	soonest	the most carefully	the least carefully

Read each sentence. Write the correct form of the adverb on the line.

- Every day I enter the gym sooner than my partner. (soon)
- I walk in eagerly than a gymnast. (eagerly)
- I notice that the equipment is attached securely. (securely)
- At first, I ran the least quickly of all the astronauts. (quickly)
- If I keep practicing, I may one day run the fastest of all. (fast)
- Scientists planned TransHab the most carefully of any gym. (carefully)

**Pantomime** an action an astronaut might do in zero gravity. Have your partner describe or compare your action using an adverb. Then switch roles.

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**PM7.12** Unit 7 | Moving Through Space

## Grammar Focus

### 4 Adverbs Anthology page 453

Project **Student eEdition** page 453. Have volunteers read aloud the introduction and review the chart.

Then display **eVisual 7.16** and read aloud the passage, pausing to identify the first adverb and its rule: *Use an adverb to tell where, how, or when something happens.* Have students identify the remaining adverbs in the passage and state the rule for each.



### Grammar Passage

Human beings can run quickly. However, many animals run more quickly than humans do. For example, an ostrich runs about three times faster than a person can run. The cheetah, the fastest of all land animals, moves at a rate of a mile per minute. The peregrine falcon travels the fastest of all animals, at about 200 miles per hour when diving from great heights.

[NGReach.com](https://www.ngr.com) Grammar Passage: eVisual 7.16



**INTERACTIVE WHITEBOARD TIP:** Circle each adverb and underline *-ly*, *-er*, or *-est* when identified.

### 5 Read Adverbs Anthology page 453

Read aloud the directions and the sentence. After students find adverbs in the sentence, have them return to “What’s Faster than a Speeding Cheetah?” and find at least two adverbs in it.

See **Differentiate**

### 6 Write Adverbs Anthology page 453

Read aloud the directions and have students write independently. Assign **Practice Master PM7.12**.

## Check & Reteach

**OBJECTIVE:** Grammar: Use Adverbs 

Monitor partner discussion during the **Read Adverbs** activity.

If students have difficulty identifying adverbs, ask: *What does an adverb do?* (It tells how, where, or when something happens.) *What kind of word is shouted?* (an action word)

*Which word describes how someone shouted?* (clearly) Have students find the other action words in the sentence and identify the adverbs that describe how, where, or when these actions occur. Have them use the Grammar Rules chart to explain how each adverb is used in the sentence.



## Adverbs

**Adverbs** usually tell more about a verb.

### Grammar Rules Adverbs

<ul style="list-style-type: none"> <li>Use an <b>adverb</b> to tell how, where, or when something happens.</li> </ul>	An eagle flies <b>smoothly</b> . (how) It soars <b>upward</b> . (where) Eagles <b>often</b> glide on their wings. (when)
<ul style="list-style-type: none"> <li>For some adverbs, add <b>-er</b> to compare two actions. Add <b>-est</b> to compare three or more actions.</li> </ul>	A marlin swims <b>faster</b> than a shark. A sailfish is the <b>fastest</b> of all fish.
<ul style="list-style-type: none"> <li>If an adverb ends in <b>-ly</b>, use <b>more</b> or <b>less</b> to compare two actions. Use <b>the most</b> or <b>the least</b> to compare three or more actions.</li> </ul>	Snakes move more <b>gently</b> than lizards. Lizards move less <b>gently</b> than snakes. Sloths move the most <b>gently</b> of all. Frogs move the least <b>gently</b> of all.

### Read Adverbs

Read this passage with a partner. Find three adverbs.

If you shouted clearly to someone who was traveling faster than sound, the person would never hear you.

### Write Adverbs

Write a paragraph about objects in motion, such as kites or paper airplanes. Share with your partner. Use at least three adverbs.

453

Anthology page 453

## Daily Language Arts

### Daily Spelling and Word Work

Practice page T445j

### Daily Grammar

Point out the *-er* adverb *faster* in the second sentence of the second paragraph on **Anthology** page 436. Then use page T445l to teach adverbs.

### Daily Writing Skills

Point out ways to break up this sentence: Because astronauts rely completely on the spacecraft they travel in for their safety, spacecraft designers must make a vehicle that will not be damaged by either the hunks of ice and rock that hurtle through space or the radiation found there. Then use page T445n to practice breaking up long sentences.

## Writing

### 7 Write to Reinforce Grammar

Have students reread the list of Key Words on **Anthology** page 452. Ask them to identify the Key Words that are verbs (*accelerate*, *measure*, *solve*). Have them write a sentence for each verb, modifying that verb with an adverb. Tell students they may change the form of the verb (for example: *solved* or *solves* instead of *solve*). Model composing a sentence: *I will try to **solve** this problem successfully.*

After students have written their sentences, have them circle each adverb and use the rules on page 453 to check correctness. They may also check a dictionary for spelling if necessary. Then have students add the sentences to their Weekly Writing folders.

**WRAP-UP** Remind students that they have been reading about space travel this week. Have students write three ideas about the design of space vehicles and add their ideas to their unit concept maps.

## OBJECTIVES

### Thematic Connection: Moon, Space, and Stars

- ✓ Explain Uses of Reasons and Evidence
- ✓ Use Context to Determine Word Meanings

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

Mark-Up Reading: Practice Masters PM7.13–PM7.14

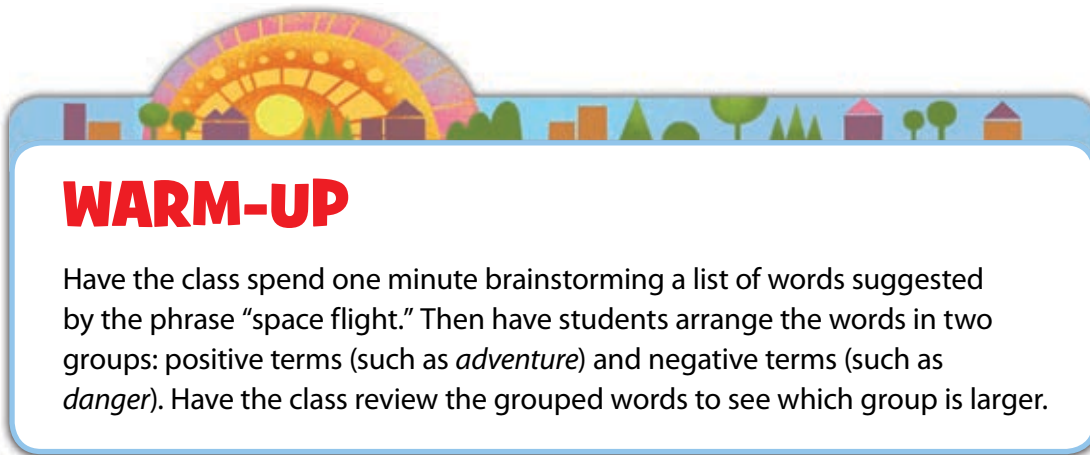
### TECHNOLOGY ONLY

Mark-Up Model 7.1 or Model 7.1 PDF

Vocabulary Strategy Practice: eVisual 7.18

## MATERIALS

yellow and green markers • timer



## WARM-UP

Have the class spend one minute brainstorming a list of words suggested by the phrase “space flight.” Then have students arrange the words in two groups: positive terms (such as *adventure*) and negative terms (such as *danger*). Have the class review the grouped words to see which group is larger.

## Comprehension

### 1 Explain Uses of Reasons and Evidence ✓

Explain that students will learn how the author of a blog uses reasons and evidence to support main ideas.

#### SCREEN 1

1 Remind students that they have learned how to identify how authors use reasons and evidence to support ideas in persuasive texts. Explain: *Now you will apply that skill to a different kind of text. In the blog you will read, the author is not trying to convince the reader to do something. He gives his opinions about life as an astronaut.*

Display and read aloud the passage on **Mark-Up Model 7.1**. Have students follow along using **Practice Master PM7.13**.

2 Elaborate: *An author’s main idea can be an opinion.* Have volunteers underline the author’s main idea and click the Main Idea button to confirm. Remind students to mark up **Practice Master PM7.13**. Then click the arrow to go to the next screen.

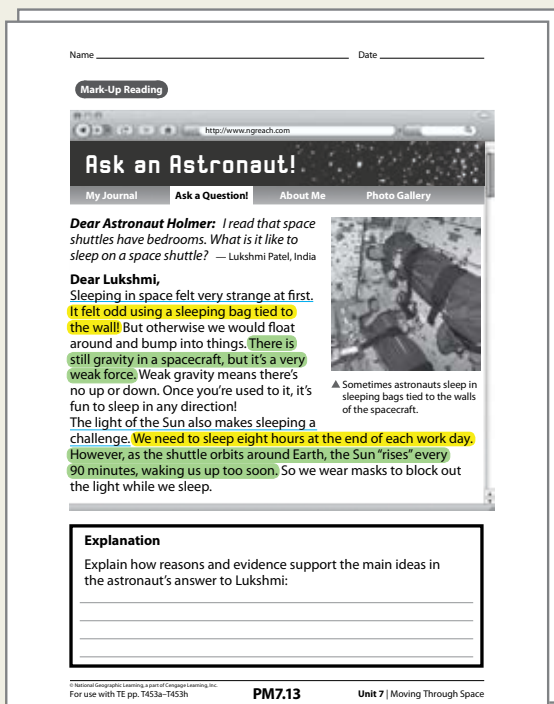
#### SCREEN 2

3 Explain: *An author usually gives reasons to support opinions.* Have volunteers yellow-highlight the first reason the author gives that supports the main idea, and click the Reason button to confirm the answer. Remind students to mark up **Practice Master PM7.13** accordingly. Ask: *What how question does this sentence answer to support the main idea?* Then click the arrow to go to the next screen.

#### SCREEN 3

4 Explain: *An author may also give evidence to support opinions.* Have volunteers green-highlight the first evidence statement that supports the author’s main idea and click the Evidence button. Remind students to mark up **Practice Master PM7.13**. Ask: *How does this evidence support the main idea?* (Possible response: It gives a fact about weak gravity. The fact explains why sleeping in space feels strange.)

Have students mark up **Practice Masters PM7.13–PM7.14** by underlining main ideas and highlighting reasons with yellow and evidence with green. Then have students write explanations of how reasons and evidence support the main ideas in each blog post. Encourage partners to share and compare their mark-ups and their explanations.



Name \_\_\_\_\_ Date \_\_\_\_\_

Mark-Up Reading

Ask an Astronaut!

My Journal Ask a Question! About Me Photo Gallery

**Dear Astronaut Holmer:** I read that space shuttles have bedrooms. What is it like to sleep on a space shuttle? — Lukshmi Patel, India

**Dear Lukshmi,**  
Sleeping in space felt very strange at first. It felt odd using a sleeping bag tied to the wall! But otherwise we would float around and bump into things. There is still gravity in a spacecraft, but it's a very weak force. Weak gravity means there's no up or down. Once you're used to it, it's fun to sleep in any direction! The light of the Sun also makes sleeping a challenge. We need to sleep eight hours at the end of each work day. However, as the shuttle orbits around Earth, the Sun "rises" every 90 minutes, waking us up too soon. So we wear masks to block out the light while we sleep.

▲ Sometimes astronauts sleep in sleeping bags tied to the walls of the spacecraft.

**Explanation**  
Explain how reasons and evidence support the main ideas in the astronaut's answer to Lukshmi:

NGReach.com Practice Masters PM7.13–PM7.14

## COMMON CORE STANDARDS

### Reading

- |  |             |
|--|-------------|
| Explain How the Main Idea Is Supported by Details        | CC.4.Rinf.2 |
| Determine Meanings of Academic and Domain-Specific Words | CC.4.Rinf.4 |
| Explain Uses of Reasons and Evidence                     | CC.4.Rinf.8 |
| Read with Fluency to Support Comprehension               | CC.4.Rfou.4 |

### Writing

Apply Grade 4 Reading Standards

CC.4.W.9

### Language and Vocabulary

Determine Meanings of Multiple-Meaning Words

CC.4.L.4





## SCREEN 1

**1** Dear Astronaut Holmer: I read that space shuttles have bedrooms. What is it like to sleep on a space shuttle? — Lukshmi Patel, India

Dear Lukshmi,  
Sleeping in space felt very strange at first. It felt odd using a sleeping bag tied to the wall! But otherwise we would float around and bump into things. There is still gravity in a spacecraft, but it's a very weak force. Weak gravity means there's no up or down. Once you're used to it, it's fun to sleep in any direction!

**2** Underline the author's main idea.

Definition: A main idea is the author's most important point.

## SCREEN 2

Dear Astronaut Holmer: I read that space shuttles have bedrooms. What is it like to sleep on a space shuttle? — Lukshmi Patel, India

Dear Lukshmi,  
Sleeping in space felt very strange at first. It felt odd using a sleeping bag tied to the wall! But otherwise we would float around and bump into things. There is still gravity in a spacecraft, but it's a very weak force. Weak gravity means there's no up or down. Once you're used to it, it's fun to sleep in any direction!

**3** Highlight the first reason that supports the author's main idea.

Definition: A reason is a detail that answers a question that begins with how or why.

NGReach.com Mark-Up Model 7.1

## SCREEN 3

Dear Astronaut Holmer: I read that space shuttles have bedrooms. What is it like to sleep on a space shuttle? — Lukshmi Patel, India

Dear Lukshmi,  
Sleeping in space felt very strange at first. It felt odd using a sleeping bag tied to the wall! But otherwise we would float around and bump into things. There is still gravity in a spacecraft, but it's a very weak force. Weak gravity means there's no up or down. Once you're used to it, it's fun to sleep in any direction!

**4** Highlight an evidence statement that supports the author's main idea.

Definition: Evidence is a fact that can be proven.

## Fluency ✓

**Model and Practice Intonation** Review: *Intonation is the rise and fall of your voice as you speak. Punctuation marks, such as exclamation points, are cues to change the rise and fall of your voice to express surprise or excitement.* Model reading aloud the first question and answer in **Practice Master PM7.13**. Have students circle all exclamation points and question marks in the text. Then have students read the questions and answers aloud, focusing on punctuation to cue appropriate intonation.

## Check & Reteach

**OBJECTIVE:** Explain Uses of Reasons and Evidence ✓

Look at students' marked-up **Practice Master PM7.13** to check for correct mark-ups of and explanations about reasons and evidence.

If students have difficulty explaining how reasons and evidence support main ideas, prompt with these questions:

- *What how or why question does this statement answer?* (Responses will vary.)
- *What does this fact explain about the main idea?* (Responses will vary.)

**Daily Language Arts****Daily Spelling and Word Work** ✓  
Practice page T445j**Daily Grammar** ✓Have students find the comparison adverb *easier* in the first paragraph on **Practice Master PM7.14**. Then use page T445l to review comparison adverbs.**Daily Writing Skills** ✓Point out the first two short sentences in the second answer on **Practice Master PM7.13**. Use page T445n to review how to break up long sentences.**Vocabulary Practice****2 More Multiple-Meaning Words** ✓Remind students that they know the difference between a multiple-meaning word and a related word. Have a volunteer explain the concept or review the lesson on page T275c. Explain that students will learn how to use related words as clues to meanings of multiple-meaning words. Then display **eVisual 7.18**.**Vocabulary Strategy Practice**

1. Sleeping in space felt very strange at first. There is still gravity in a spacecraft, but it's a very weak force.
2. Liquid just drifts around the cabin in little drops. These droplets can be a nuisance.
3. Exercising in space is fun! We might use the exercise bike on board to stay in shape.

**drop** *verb* to fall *noun* small rounded mass of liquid**exercising** *noun* using *verb* actively moving one's body for physical fitness**space** *noun* 1. area 2. region outside Earth's atmosphere **Vocabulary Strategy: eVisual 7.18****INTERACTIVE WHITEBOARD TIP:** Students circle each word that gives a clue to an underlined word.

Explain: *In each pair of sentences, the underlined word has more than one meaning.* Explain that partners will use the related word in the second sentence of each pair to select the meaning of the multiple-meaning word that is used in the first sentence.

Model with the first pair of sentences: *I know that the related word spacecraft means "a vehicle for traveling in a region outside Earth's atmosphere." This helps me determine that the word space in the first sentence means "region outside Earth's atmosphere."*

**Power Writing**

Have students write as much as they can as well as they can in one minute about space.

For **Writing Routine 1**, see page BP47.**Check & Reteach****OBJECTIVE:** Use Context to Determine Word Meanings ✓

Listen to partners' explanations to check if they correctly identify related words, and use their meanings to determine the meanings of multiple-meaning words.

If students have difficulty using related words to determine meanings of multiple-meaning words, reteach with the second pair of sentences: *I know that the related word droplets means "small drops of liquid." This helps me determine that the word drop means "small rounded mass of liquid."*

# Writing

## 3 Write about Reasons and Evidence

Introduce the activity: *Now write a paragraph about a text that does not try to persuade the reader to do or think anything. You will explain how the author uses reasons and evidence to support the main ideas.* Model the process.

Think Aloud	Write
<i>First, I will write about a main idea. I will use one of the author's opinions.</i>	The author thinks that sleeping in space was very strange at first.
<i>Next, I will identify a reason the author gives and explain how it supports that opinion.</i>	He says that you use a sleeping bag tied to the wall so you don't float around. This supports his opinion by answering the question, "How does sleeping in space feel strange?"
<i>Then, I will identify some evidence the author presents and explain how it supports the opinion.</i>	Then he gives the fact that there is only weak gravity in a spacecraft. It supports the opinion by explaining why sleeping in space felt strange.

For **Writing Routine 2**, see page BP48.


Have students write about a different answer from the astronaut.

See **Differentiate**

# Academic Talk

## 4 Discuss Drawing Conclusions

Introduce the activity: *Now you will discuss conclusions you can draw, based on details in the astronaut blog.* Have students recall how to draw a conclusion and, if necessary, review **Anthology** page 430. Ask: *What are two important ideas in "Ask An Astronaut"? How do they fit together? What do you think about how the two ideas fit together?* Have partners discuss their conclusions and explain the details on which they based them.



**WRAP-UP** Form small groups. Have each group write two or three questions they would ask if they could talk to an astronaut in person. Have the groups share their questions with the class. For each question, have the class discuss the answer that they would expect to get from the astronaut.

# Differentiate

## SN Special Needs

**ISSUE** Students have difficulty distinguishing opinions, reasons, and evidence.

**STRATEGY** Have students complete a chart like the one below before they begin writing.

**Reasons and Evidence Chart**

Opinion	Reason	Evidence

## BL Below Level

**ISSUE** Students' writing lacks organization.

**STRATEGY** Give students a simple outline to follow:

- I. Author's opinion that is the main idea  
\_\_\_\_\_
- II. Reason that supports that main idea  
\_\_\_\_\_
- III. How the reason supports the main idea  
\_\_\_\_\_
- IV. Evidence that supports the main idea  
\_\_\_\_\_
- V. How the evidence supports the main idea  
\_\_\_\_\_

## OBJECTIVES

**Thematic Connection: Moon, Space, and Stars**

- ✔ Use Context to Determine Word Meanings
- ✔ Compare Support for Main Ideas

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

**Unit Concept Map: Practice Master PM7.1**

**Mark-Up Reading: Practice Masters PM7.13–PM7.14**

### TECHNOLOGY ONLY

**Vocabulary Strategy Practice: eVisual 7.19**

**Comparison Chart: eVisual 7.20**

## MATERIALS

timer

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *distance*.

For **Writing Routine 1**, see page BP47.

## COMMON CORE STANDARDS

### Reading

Explain How the Main Idea Is Supported by Details CC.4.Rinf.2

Determine Meanings of Academic and Domain-Specific Words CC.4.Rinf.4

Explain Uses of Reasons and Evidence CC.4.Rinf.8

### Writing

Write Over Shorter Time for Specific Tasks CC.4.W.10

### Speaking and Listening

Come to Discussions Prepared and Draw on Preparation and Information to Explore Ideas CC.4.SL.1.a

### Language and Vocabulary

Determine Meanings of Multiple-Meaning Words CC.4.L.4

## WARM-UP

Write several multiple-meaning words linked to space travel, such as *space*, *star*, and *float*. Have students give as many meanings as they can for each.

## Vocabulary Practice

### 1 Multiple-Meaning Words ✔

Remind students that they have learned how various kinds of context clues, including related words, can help students determine the meanings of multiple-meaning words. Display **eVisual 7.19**.



### Vocabulary Strategy Practice

The astronaut's ten-day mission in space had just begun. She reached out to flip a switch on the control panel. A quick look through the spacecraft window showed Earth, her home so far away. She had known since she began to train for working in space that she would miss her family a lot. But she also knew how to stay focused on her dreams.

**dreams** *noun* 1. thoughts and experiences during sleep 2. goals

**look** *noun* a glance *verb* to seem

**miss** *noun* a failure *verb* to feel the absence of

**space** *noun* 1. area 2. region outside Earth's atmosphere

**switch** *noun* an on/off button *verb* to change

**train** *noun* a line of railroad cars *verb* to prepare to do something

[NGReach.com](http://NGReach.com)

**Vocabulary Strategy: eVisual 7.19**



**INTERACTIVE WHITEBOARD TIP:** Have students circle the meaning that is used in each sentence.

Read the passage with students. Then have them list the six underlined words. Explain the activity: *Use the dictionary entries and context clues to match each underlined word to the meaning used in the passage. Write beside each word the meaning that is used in the sentence.*

## Check & Reteach

**OBJECTIVE:** Use Context to Determine Word Meanings ✔

Review students' lists to check if they are able to determine the correct meanings.

If students have difficulty identifying the correct meanings of the multiple-meaning words, model determining the meaning of *look*. *The words a quick tell me that look is a noun in this sentence. That means the noun meaning "a glance" is used in the sentence.*

Name \_\_\_\_\_ Date \_\_\_\_\_


**Mark-Up Reading**

**Ask an Astronaut!**

My Journal   Ask a Question!   About Me   Photo Gallery

**Dear Astronaut Holmer:** I read that space shuttles have bedrooms. What is it like to sleep on a space shuttle? — Lukshmi Patel, India

**Dear Lukshmi,**  
Sleeping in space felt very strange at first. It felt odd using a sleeping bag tied to the wall! But otherwise we would float around and bump into things. There is still gravity in a spacecraft, but it's a very weak force. Weak gravity means there's no up or down. Once you're used to it, it's fun to sleep in any direction! The light of the Sun also makes sleeping a challenge. We need to sleep eight hours at the end of each work day. However, as the shuttle orbits around Earth, the Sun "rises" every 90 minutes, waking us up too soon. So we wear masks to block out the light while we sleep.



▲ Sometimes astronauts sleep in sleeping bags tied to the walls of the spacecraft.

**Explanation**

Explain how reasons and evidence support the main ideas in the astronaut's answer to Lukshmi:

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Name \_\_\_\_\_ Date \_\_\_\_\_


**Mark-Up Reading**

**Ask an Astronaut!**

My Journal   Ask a Question!   About Me   Photo Gallery

**Dear Astronaut Jamal Holmer:** We learned that space shuttles have exercise rooms. It has to be hard to exercise without gravity! How do you exercise in space? — Mr. Fletcher's fourth-grade class from California

**Dear Class,**  
Exercising in space is fun and necessary! Imagine what would happen if you never had to walk anywhere or never had to lift heavy objects. Your muscles would get really weak! Luckily, there are plenty of ways to exercise. On the International Space Station, we might use the exercise bike or special equipment that simulates lifting weights to keep our muscles strong. Or we might turn somersaults and race from one end of the space station to the other!



▲ Astronauts need to exercise often to keep their muscles strong.

**Explanation**

Explain how reasons and evidence support the main idea in the astronaut's answer to Mr. Fletcher's class:

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In Other Words  
simulates gives the feeling of

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## Review and Integrate Ideas

### 2 Identify Main Ideas

Explain to students that they will identify several main ideas in each of the three selections they have read. Create a main ideas chart for “What’s Faster Than a Speeding Cheetah?” and model completing the first entry.

Have partners recreate and complete the chart. Then have partners create and complete a similar chart for “Building for Space Travel” and “Ask an Astronaut!”.

Selection	Main Ideas	Locations
“What’s Faster Than a Speeding Cheetah?”	• A human cannot run as fast as an ostrich or a cheetah.	• page 434 • paragraph 1 • sentence 1
	• If you want to travel to the moon, you will need a rocket ship.	• page 437 • paragraph 2 • sentence 1



## Daily Language Arts

### Daily Spelling and Word Work

Test page T445i

### Daily Grammar

Have students find the comparison adverb *faster* in the first paragraph on **Anthology** page 441. Then use page T445l to review comparison adverbs.

### Daily Writing Skills

Point out the first two short sentences in the first answer on **Practice Master PM7.13**. Use page T445n to review how to break up long sentences in writing.

## 3 Compare Support for Main Ideas

Explain that students will now compare how the authors of “What’s Faster Than a Speeding Cheetah?,” “Building for Space,” and “Ask an Astronaut!” used evidence and reasons to support their main ideas. Display **eVisual 7.20**.



### Comparison Chart

Article	Main Ideas	Reasons and Evidence
“What’s Faster Than a Speeding Cheetah?”	A human cannot run as fast as an ostrich or a cheetah.	<ul style="list-style-type: none"> <li>• Some humans can run 15 miles per hour.</li> <li>• Ostriches may run 45 miles per hour.</li> <li>• Cheetahs can run 70 miles per hour.</li> </ul>
	If you want to travel to the moon, you will need a rocket ship.	

NGReach.com

Comparison Chart: eVisual 7.20



**INTERACTIVE WHITEBOARD TIP:** Have students fill in the chart.

Explain: *Choose main ideas from your chart to complete this comparison chart.* Model identifying how an author uses reasons and evidence to support one of the main ideas in “What’s Faster Than a Speeding Cheetah?” Have students recreate, expand, and complete the chart.

Facilitate a discussion comparing the ways authors used reasons and evidence to support main ideas. Ask questions, such as: *Which reasons and evidence best helped you understand the text? Which reason or evidence interested you most?*

## Differentiate

### English Learners

**ISSUE** Students lack the language proficiency to state their opinions on scientific topics such as space travel.

**STRATEGY** Provide sentence frames.

- I think space travel is interesting because \_\_\_\_\_.
- I think space travel is important because \_\_\_\_\_.

### Above Level

**ISSUE** Students produce formulaic text when writing their opinions.

**STRATEGY** Remind students that a sentence that states an opinion may appear in a variety of positions in a paragraph. Suggest some interesting ways to begin the paragraph, with the opinion statement coming a bit later in the text.

## Check & Reteach

### **OBJECTIVE:** Compare Support for Main Ideas

Review students’ charts to check if they are able to identify reasons and evidence.

If students have difficulty, prompt with questions, such as: *What sentence explains more about the main idea? What information does the sentence add about the main idea?*

## Writing

### 4 Write and Support Opinions

Introduce the activity: *What do you think about space travel? Should people continue to explore space? Write your opinions and support them with reasons and evidence.* Have students write and share paragraphs and add them to their Weekly Writing folders.

See **Differentiate**

# Academic Talk

## 5 Relate Readings to the Big Question

Have students recall the unit’s Big Question: What does it take to explore space? Remind students to plan for a discussion by reviewing the week’s selections and their writing assignments. Tell students that they will discuss the challenges of space exploration.

Explain: *Think about “What’s Faster Than a Speeding Cheetah?,” “Building for Space Travel,” “Ask an Astronaut!,” and a Small Group Reading book you have read. How did those selections show what it takes to explore space?*



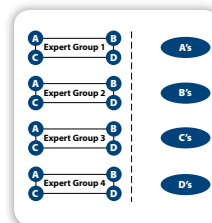
Model a response to the question for “Building for Space Travel.” *I remember that the architect of TransHab had to consider a lot of different things when she was building the module. She had to do a lot of planning to make sure that it worked the way it was supposed to work. I think it takes a lot of planning and hard work to explore space.* Add the idea to the unit concept map.

Use a **Jigsaw** to have students continue discussion about how the readings relate to the Big Question.

- Group students evenly into “expert” groups.
- Assign a specific aspect of the Big Question to each group.

Possibilities:

- what it takes to plan a long space mission
- what the challenges of a space mission are
- what it takes to serve as an astronaut
- what it’s like to live in space
- Regroup students so that each new group has at least one member from each expert group.
- Have experts report on their discussions. Other students learn from the experts.



Jigsaw

## Best Practices

**Model Academic Language** If student discussions use too much informal language, model a scientific conversation with two students. Encourage students to use words from the readings, such as *force*, *gravity*, and *shuttle*. Then have students practice using scientific terms in small groups.

## WRAP-UP

Form small groups. Have each group create a list of three qualities that they believe good astronauts should possess. Have groups share their lists with the class. Then let students vote, with a show of hands, on what they think the three most important qualities are.

## OBJECTIVES

**Thematic Connection: Moon, Space, and Stars**

✔ Write an Informational Essay: Fluency

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

**Writing Rubric: Assessment Master A7.41**

### TECHNOLOGY ONLY

**Sample Informational Essay: eVisual 7.13**

**Fluency: eVisual 7.14**

**Magazine Maker**

## SUGGESTED PACING

DAY 1	Study a Model
DAY 2	Prewrite
DAY 3	Draft
DAY 4	Revise/Edit and Proofread
DAY 5	Publish and Present

## COMMON CORE STANDARDS

### Writing

Write Informative/Explanatory Text to Examine a Topic	CC.4.W.2
Introduce a Topic and Group Related Information in Paragraphs and Sections	CC.4.W.2.a
Develop the Topic, Plan, Revise, and Edit Writing	CC.4.W.2.b
Write Over Extended Time Frames for Specific Tasks, Purposes, and Audiences	CC.4.W.5 CC.4.W.10

### Language and Vocabulary

Demonstrate Command of Grammar	CC.4.L.1
Produce Complete Sentences	CC.4.L.1.f
Use Knowledge of Conventions	CC.4.L.3

## Write an Informational Essay

Display and read aloud the prompt.

You are part of the team that helped design TransHab. The Space Program Director at NASA has asked you to write an informational essay about TransHab for schoolchildren.

## Study a Model

### Read an Informational Essay

Explain: *Let's read one student's essay.* Display and read aloud **eVisual 7.13**.



### Sample Informational Essay

#### What Is TransHab?

TransHab is a space vehicle that will also be a home for astronauts who must travel long distances. For example, a trip to Mars could last for years.

The plan was for space shuttles to carry TransHab into space. So it had to be made small enough to fit on board. The designer decided to make TransHab inflatable, with a very tough outer skin. This protects the vehicle and the astronauts.

Inside, TransHab includes different levels where astronauts can eat, sleep, exercise, work, and have fun. It has a bathroom, too, of course! Furniture is attached so it does not float around in zero gravity. With these features, TransHab will allow astronauts to live more comfortably during their long trips to Mars.

[NGReach.com](#) **Sample Informational Essay: eVisual 7.13**



**INTERACTIVE WHITEBOARD TIP:** Place slashes between sentences to emphasize sentence breaks.

### Review the Trait: Fluency

Remind students of the importance of fluency in writing: *When sentences flow, your writing is easier to read and understand.* Display and read aloud **eVisual 7.14**.



### Writing Trait: Fluency

Sentences that are fluent:

- are composed of well-chosen words that support the topic
- are neither too short nor too long
- sound natural when read aloud.

[NGReach.com](#) **Sentence Fluency: eVisual 7.14**



**INTERACTIVE WHITEBOARD TIP:** Write a checkmark next to each trait as you read.

Write the following sample. Ask students to break up the long sentence: *Living space inside TransHab is not too big because TransHab was designed to fit inside a space shuttle, but it is large enough so people can still work and live inside TransHab too.*





# Prewrite

## Choose a Topic

Reread the first sentence of the prompt. Ask: *What is your role?* (part of the team that designed TransHab) Continue with the remainder of the prompt in order to determine the Role, Audience, and Form for the RAFT.

**Role:** Architect

**Audience:** Schoolchildren

**Form:** Informational Essay



Have students look at **Magazine Maker** photos of space. Encourage them to choose one or two photos to go with their informational essays. Then have students individually complete the RAFT.

## Get Organized

Review the sample: *Like many informational essays and reports, "What Is TransHab?" has a main idea and several related details.* Display a main idea diagram and review: *A main idea diagram can help you structure your writing.* Model using facts from "What Is TransHab?" to complete the main idea diagram.

<b>Main idea:</b> features of TransHab		
<b>Detail:</b> can be transported in space shuttle, then inflated	<b>Detail:</b> has tough outer skin for protection	<b>Detail:</b> includes different levels for living

Main Idea Diagram

Have students create their own main idea diagrams to help them plan their informational essays.

# Draft

## Write Ideas

Allow students adequate class time to plan, organize, and write their drafts. When they have finished writing the text of their informational essays, instruct students to experiment with page layouts and photographs for their essays using **Magazine Maker**. Remind students to focus on sentence length as they write their informational essays.

See **Differentiate**

## Differentiate

### AL Above Level

**ISSUE** Students are not adequately challenged by the activity.

**STRATEGY** Have students create their own visuals to accompany their informational essays. Suggest that students make diagrams of TransHab, complete with labels and explanations.



## Daily Language Arts

### Daily Spelling and Word Work ✓

Practice pages T445i–T445j

### Daily Grammar ✓

Have students find examples of comparison adverbs in the sample “The First Moon Landing” (greatest) or in “Building for Space Travel” on pages 447–451 of the **Anthology**. Use pages T445k–T445l to practice using comparison adverbs.

### Daily Writing Skills ✓

Point out the length and structure of sentences within the stories and passages in the **Anthology**. Then use pages T445m–T445n to practice breaking up long sentences into concise, well-organized sentences.

## Revise

### Read, Retell, Respond

Have students read aloud their drafts to partners. Have listeners retell important ideas from the essay and offer ideas to improve the fluency. Display language frames to guide the discussion.

Language Frames	
Retell	Make Suggestions
You said that the design of TransHab _____.	The sentences about _____ flowed well together.
You also explained _____.	Could you vary the sentence lengths in the part about _____?

### Make Changes

Have students revise their writing. Remind them to break up long sentences into shorter, more concise sentences to improve fluency. As they revise their informational essays, remind students to make sure their sentences are well-organized.

Demonstrate how students can upload their own photographs in **Magazine Maker**: *Select My Photos and click the Upload button. Import a photo from the correct location on the computer, then move, edit, and crop the photo as necessary.*

See **Differentiate**

## Differentiate

### EL English Learners

**ISSUE** Since students are only comfortable using very simple sentence structures, they are confused by the idea of shortening some sentences.

**STRATEGY** Work with students to create compound and complex sentences. Explain that the overall goal in producing fluent writing is to use a variety of sentence types.

### Student Sample: Revise

**What is TransHab?**

**TransHab is a space vehicle that will also be a home for astronauts who must travel long distances, like the astronauts who will travel to Mars for several years.**

**The plan was for space shuttles to carry TransHab into space. So it had to be made small enough to fit on board. The designer decided to make TransHab inflatable, with a tough outer skin. This protects the vehicle and the astronauts. The astronauts have a right to not be afraid while traveling.**

### Sample Analysis

This sentence looks way too long. It doesn't sound natural when I read it aloud. I will break into two shorter sentences.

This last sentence doesn't really fit with the rest of the essay or support the topic. I will delete it to improve the fluency of the essay.



# Edit and Proofread

## Check the Informational Essay

Have students check their grammar and spelling, focusing on the Week 2 spelling words and on the proper use of comparison adverbs.

Student Sample: Revise

Sample Analysis

The plan was for space shuttles to carry TransHab into space. So it had to be made small enough to fit on board. The designer decided to make TransHab inflatable, with a tough outer skin. This protects the vehicle and the astronauts.

Inside, TransHab includes different levels where astronauts can eat, sleep, exercise, work, and have fun. It has a bathroom, too, of course! Furniture is attached so it does not float around in zero gravity. With these features, TransHab will allow astronauts to live well during their long trips to Mars.

I misspelled *designer*. I will fix that.

The idea of living well doesn't mean much. I think I'll use a comparison adverb like "more comfortably" here.

# Publish and Present

## Make a Final Copy

Encourage students to try formatting their essays in **Magazine Maker** to resemble a magazine or newspaper article. Have students add titles to their writing and print their work.


## Share with Others

Model reading with expression and intonation. Then ask volunteers to read their informational essays aloud for the class.

Have students make additional copies of their writings and add them to their Weekly Writing folders. Use the **Writing Rubric** to assess each student's informational essay.

Student Sample: Publish

**What is TransHab?**



TransHab is a space vehicle that will also be a home for astronauts who must travel long distances. For example, a trip to Mars could last for years.

The plan was for space shuttles to carry TransHab into space. So it had to be made small enough to fit on board. The designer decided to make TransHab inflatable, with a very tough outer skin. This protects the vehicle and the astronauts.

Inside, TransHab includes different levels where astronauts can eat, sleep, exercise, work, and have fun. It has a bathroom, too, of course! Furniture is attached so it does not float around in zero gravity. With these features, TransHab will allow astronauts to live more comfortably during their long trips to Mars.

### Writing Rubric

Score Point	Ideas	Organization	Voice	Word Choice	Fluency	Conventions	Presentation
4	The writing has a clear focus and a strong main idea. Details are accurate and relevant, showing in-depth knowledge of the topic.	The writing has a clear structure that meets the writer's purpose. All content is relevant and logically organized.	The writing has a strong, consistent voice that is appropriate for the audience and purpose.	Appropriate words are chosen to convey the writer's message. Language used is appropriate for the audience and purpose.	All sentences are used and have appropriate transitions. When read aloud, the writing flows smoothly and is easy to read.	The writing has only a few minor errors in punctuation, grammar, usage, and spelling. Most of the sentences are complete.	The text is presented in an orderly way. In an expository piece, the writer conveys the message. Sources are appropriate and relevant. The writing is well supported.
3	Most of the writing has a clear focus and a strong main idea. Details are accurate and relevant, showing in-depth knowledge of the topic.	Most of the writing has a clear structure that meets the writer's purpose. Most content is relevant and logically organized.	Most of the writing has a consistent voice that is appropriate for the audience and purpose.	Most of the writing has appropriate words chosen to convey the writer's message. Most of the language used is appropriate for the audience and purpose.	Most of the writing has appropriate transitions. When read aloud, the writing flows smoothly and is easy to read.	Most of the writing has only a few minor errors in punctuation, grammar, usage, and spelling. Most of the sentences are complete.	Most of the text is presented in an orderly way. In an expository piece, the writer conveys the message. Sources are appropriate and relevant. The writing is well supported.
2	The writing has a clear focus and a strong main idea. Details are accurate and relevant, showing in-depth knowledge of the topic.	Some of the writing has a clear structure that meets the writer's purpose. Some content is relevant and logically organized.	Some of the writing has a consistent voice that is appropriate for the audience and purpose.	Some of the writing has appropriate words chosen to convey the writer's message. Some of the language used is appropriate for the audience and purpose.	Some of the writing has appropriate transitions. When read aloud, the writing flows smoothly and is easy to read.	Some of the writing has only a few minor errors in punctuation, grammar, usage, and spelling. Some of the sentences are complete.	Some of the text is presented in an orderly way. In an expository piece, the writer conveys the message. Sources are appropriate and relevant. The writing is well supported.
1	The writing does not have a clear focus and a strong main idea. Details are inaccurate and irrelevant, showing little or no knowledge of the topic.	The writing does not have a clear structure that meets the writer's purpose. The content is not relevant and is not logically organized.	The writing does not have a consistent voice that is appropriate for the audience and purpose.	The writing does not have appropriate words chosen to convey the writer's message. The language used is not appropriate for the audience and purpose.	The writing does not have appropriate transitions. When read aloud, the writing does not flow smoothly and is difficult to read.	The writing has many errors in punctuation, grammar, usage, and spelling. Most of the sentences are not complete.	The text is not presented in an orderly way. In an expository piece, the writer does not convey the message. Sources are not appropriate and relevant. The writing is not supported.

# Week 2 Assessment & Reteaching

= TESTED

## Assess

### OBJECTIVES

#### Reading

- Draw Conclusions to Comprehend Text
- Explain Concepts in Text
- Explain Uses of Reasons and Evidence

### ASSESSMENTS

**Reading Comprehension Test** Unit 7, Week 2

**Stars: Some Are Hot and Some Are Not**

Directions: Read the science article. Then answer the questions about the article.

We can see hundreds, even thousands of stars in the night sky. Though they seem to be nearby, the closest star is 24 billion miles away! From that distance, stars can all look alike. In truth, they can be as different from each other as a starfish is from an elephant.

**Temperature**

Take temperature, for example. Our Sun is about 11,000 degrees on its surface and an astonishing 27 million degrees at its core. There are many other stars like the Sun. Scientists call a group of stars like this a family.

Other families of stars are not very hot at all. They are called red dwarfs and never warmed up in the first place. These stars cool over time, and some of them are only as warm as your oven when it bakes cookies. The stars in this family are called brown dwarfs.

**Scoring Discovery**

Since a brown dwarf gives off weak light, it's almost impossible to see with a regular telescope. In 2011, using special infrared equipment, scientists discovered the coldest star ever found. These fading stars are called Y dwarfs. Their body temperature is around 58.6 degrees. That's about how cool the Y dwarfs are.

Several of these newly discovered stars are pretty close to Earth. Michael Cushing is one of the scientists who helped find these cool stars. He said that it was "like discovering there's a hidden house on your block that you didn't know about. It's thrilling to me to know we've got neighbors out there yet to be discovered!"

The coldest star that Cushing and his co-workers have found is below 80 degrees. How cool is that?

Grade 4 Assessment **A7.11** Unit 7 (Moving Through Space)

**Reading Comprehension Test** Unit 7, Week 2

Directions: Read the science article. Then answer the questions about the article.

The title of the article can help you understand that ...

1. stars are very far away

2. the Sun is a very hot star

3. scientists are discovering new stars

4. stars have very different temperatures

In the part of the article under "Testing Discovery," what is the most important idea?

1. Brown dwarf stars give off weak light.

2. Some Y dwarfs are pretty close to Earth.

3. Scientists have found the coldest star ever.

4. Special equipment is needed to see Y dwarfs.

Which of these is a fact?

1. Discovering new stars is exciting.

2. From Earth, most stars look alike.

3. Scientists guess stars are red dwarfs.

4. It's thrilling to find new stars close to Earth.

Which of these is an opinion?

1. The surface of the Sun is hotter than you can imagine.

2. The coldest star ever found is below 80 degrees.

3. Scientists discovered Y dwarf stars in 2011.

4. There are many other stars like the Sun.

Grade 4 Assessment **A7.12** Unit 7 (Moving Through Space)

**Reading Strategy Assessment** Unit 7

Directions: Check the reading strategies the student used and ask the questions that follow about how the student used the strategy. Use the rubric to help you determine how well the student used the strategy. Circle the student's score.

Ask: **What do you do when you see a word you don't know?** What do you do to understand better? How do you do it?

Part and Number	Reading Strategy Rubric			
	4	3	2	1
1. Underline the main idea of the passage.	Underlines the main idea of the passage.	Underlines the main idea of the passage.	Underlines the main idea of the passage.	Underlines the main idea of the passage.
2. Circle the main idea of the passage.	Circles the main idea of the passage.	Circles the main idea of the passage.	Circles the main idea of the passage.	Circles the main idea of the passage.
3. Write the main idea of the passage.	Writes the main idea of the passage.	Writes the main idea of the passage.	Writes the main idea of the passage.	Writes the main idea of the passage.
4. Write the main idea of the passage.	Writes the main idea of the passage.	Writes the main idea of the passage.	Writes the main idea of the passage.	Writes the main idea of the passage.

Grade 4 Assessment **SG7.30** Unit 7 (Moving Through Space)

Reading Comprehension Test A7.11–A7.12

Reading Strategy Assessment SG7.30–SG7.31

#### Fluency

- Intonation
- Accuracy and Rate

**Oral Reading Assessment** Unit 7

Directions: Read the passage aloud. Use the rubric to assess the student's oral reading fluency.

What would you think if you suddenly saw a new object in the night sky? Would you be afraid of it? Would you want to learn more about it? People have always wondered about bright objects in the sky. In ancient times, people watched the sky carefully. They noticed that some lights appeared suddenly and that what looked like long tails. People didn't know what to think of these objects that didn't move regularly through the sky like the stars, the moon, and the planets.

Today, we understand more about these strange objects. We call them comets. They are huge "icy snowballs" made of dust and ice. Most scientists believe that comets are made up of rocky material left over after the planets were formed.

The orbit of most comets in our solar system is very long and looped, and these comets can travel very fast through space when they are near the sun. That's why comets seem to appear suddenly. It can be many years from one encounter of a comet with the Earth to the next.

As a comet nears the sun, pieces of the comet break away and are superheated into gas. The gas streams away from the sun, looking like a tail. Each comet actually has two tails: one tail made of gas and another made of dust. The tail made of dust is shorter and curves a little around the comet. The tail that is made of gas is straight and can stretch for millions of miles!

How will you feel the next time you see a new light in the night sky if you see a tail on the light, it might be a comet. Then you can look up information about it. You might even see the same comet later in your lifetime, and the next time, you won't be so surprised.

Grade 4 Assessment **A7.1** Unit 7 (Moving Through Space)

**Oral Reading Assessment** Unit 7

Directions: Read the passage aloud. Use the rubric to assess the student's oral reading fluency.

Code	Retelling Rubric			
	4	3	2	1
1	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.
2	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.
3	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.
4	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.	Retells the main idea of the passage.

Grade 4 Assessment **A7.2** Unit 7 (Moving Through Space)

**Oral Reading Assessment** Unit 7

Directions: Read the passage aloud. Use the rubric to assess the student's oral reading fluency.

Oral Reading Assessment Wrap-up

Ask the student about his or her reading. You can prompt the student with questions such as:

- Did you have any problems reading the passage? If so, what caused them? How did you solve them?
- Show the student things you noticed about the student's reading, for example, *read* that you read with a lot of expression. How reading is going to be better. You can also give the student a thumbs up.
- Make suggestions about what improvements are needed, for example, *You read some words without looking at the page.*
- If you asked the student to read the story, make notes about what the student needs to improve on. Underline the main ideas from details, or present notes in the progress reports.

Grade 4 Assessment **A7.3** Unit 7 (Moving Through Space)

Oral Reading Assessment A7.1–A7.3

Use these passages throughout Unit 7. Work with On Level students this week.

#### Vocabulary and Spelling

- Use Context to Determine Word Meanings
- Spell Words with oo: book, good; Words with Silent Consonants
- Use Commonly Misspelled Words Correctly

**Vocabulary Test** Unit 7, Week 2

Directions: Read the question. Choose the best answer.

1. What does **land** mean in this sentence?  
The astronaut **landed** on the moon.

1. a country  
2. the ground  
3. got something  
4. came from the surface

2. What does **orbit** mean in this sentence?  
We watch the rocket ships take off.

1. look at  
2. protect  
3. move when a person guards  
4. a stick to keep on your arm

Directions: Read the questions. Use the dictionary entry to choose the best answer.

**light** (lit) noun 1 energy from the sun, stars, lamps, and fires 2 something that gives light; objects that are not heavy; weighing only a little; with 4 to start something burning

1. Which meaning of **light** is used in this sentence?  
Beams of **light** lit the campfire at sunset.

1. meaning 1  
2. meaning 2  
3. meaning 3  
4. meaning 4

2. Which meaning of **light** is used in this sentence?  
Sam was surprised the truck felt so **light**.

1. meaning 1  
2. meaning 2  
3. meaning 3  
4. meaning 4

Grade 4 Assessment **A7.13** Unit 7 (Moving Through Space)

**Spelling Words**

Use these words and sentences for the weekly Spelling Pretest and Spelling Test.

Words with oo: Silent Consonants

1. **acknowledge** that made a mistake on my science report, I **admitted** it and then corrected it.
2. **align** Those stars **align** to form a straight line.
3. **boom** I wonder if stars can burst in space like exploding **booms**.
4. **climb** The astronaut is **climbing** down a ladder to step onto the moon.
5. **crooked** I built the city around my model of Saturn, so now it looks **crooked**.
6. **design** It wasn't easy to plan and **design** a space model.
7. **fasten** You **fasten** objects inside the spacecraft so they don't float away.
8. **grasp** In the science fiction story, angry little space creatures **grasp** and **grasp** their next meals.
9. **handbook** The spaceport has a **handbook** of instructions.
10. **know-how** They have the **skill** and **know-how** to build a space shuttle.
11. **numbers** Can you feel things in space, or do you only experience **numbers**?
12. **outlook** I tend to be cheerful and look at all that's great about space exploration, because I have a positive **outlook**.
13. **withstood** The outside of the rocket was built so well that it **withstood** the effects of very high heat on take-off.
14. **worshipful** In myths about the planets, some characters are peaceful, but others are angry and **worshipful**.
15. **wreckage** When our paper rocket fell apart, the **wreckage** fell here and there like crumpled pieces of paper.

Watch-Out Words

16. **recent** Is this a **recent** article about the launch, or is it out of date?
17. **resent** Do some astronauts **resent** not getting to go to space?
18. **through** They did a complete **through** check of the shuttle.
19. **through** The astronaut had to go **through** many tests.

Grade 4 Assessment **A7.14** Unit 7 (Moving Through Space)

Vocabulary Test A7.13

Spelling Pretest/ Spelling Test T445i

#### Grammar and Writing

- Use Comparison Adverbs
- Break Up Long Sentences

**Writing, Revising, and Editing Test**

Directions: Read the paragraph. Then answer the questions.

Though some cars are fast, they are standing still compared to things flying through space. Earth travels about 2,200 miles per hour around the Sun. As fast as that sounds, it travels \_\_\_\_\_ than most rockets. The vehicle traveling \_\_\_\_\_ through the solar system is the New Horizons spacecraft on its way to Pluto. It travels even \_\_\_\_\_ than Earth does—about 36,000 miles per hour! Moving even \_\_\_\_\_, other rockets are space rocks called meteoroids. Some fall to Earth every year during a display of "shooting stars" called the Orionids. These meteoroids slip along at around 148,000 miles per hour. The \_\_\_\_\_ condition for watching the Orionids is a clear sky. You can see the shooting stars \_\_\_\_\_ if you can find an area with no city lights. None of these objects can outrun light, at about 186,000 miles per second. If you could see that fast, you could go around Earth every three to five hours in a second!

1. Choose the answer that goes in Blank 1.

1. less fast  
2. less quickly  
3. less faster  
4. less slowly

2. Choose the answer that goes in Blank 2.

1. faster  
2. more quickly  
3. the most quickly  
4. the more quickly

Grade 4 Assessment **A7.14** Unit 7 (Moving Through Space)

**Writing, Revising, and Editing Test**

Directions: Read the paragraph. Then answer the questions.

There are many birds, such as the red-tailed hawk and the peregrine falcon, that can move faster than a cheetah, which is a member of the cat family that includes lions, tigers, and panthers, and is the fastest of all land animals. Cheetahs have beautiful spotted fur that helps them blend with their surroundings as they hunt, and when they're hunting they can reach speeds of up to 70 miles per hour, which is even faster than a bear!

1. Choose the answer that goes in Blank 3.

1. quickly  
2. quickly  
3. more quickly  
4. more fast

2. Choose the answer that goes in Blank 4.

1. faster  
2. better  
3. faster  
4. more fast

3. Read this paragraph from a student report. Even though the sentences are correct, they are too long. The reader gets lost before he or she gets to the end. Rewrite the paragraph, breaking up the writing into sentences that are shorter and easier to understand.

Grade 4 Assessment **A7.15** Unit 7 (Moving Through Space)

**Writing Rubric**

Grade	Writing	Writing Rubric			
		4	3	2	1
Grade 4	Content	Writes a clear, focused paragraph that includes a main idea and supporting details.	Writes a clear, focused paragraph that includes a main idea and supporting details.	Writes a clear, focused paragraph that includes a main idea and supporting details.	Writes a clear, focused paragraph that includes a main idea and supporting details.
	Organization	Organizes ideas in a logical order that is easy to follow.	Organizes ideas in a logical order that is easy to follow.	Organizes ideas in a logical order that is easy to follow.	Organizes ideas in a logical order that is easy to follow.
	Style	Uses a variety of sentence structures and word choices to make writing interesting.	Uses a variety of sentence structures and word choices to make writing interesting.	Uses a variety of sentence structures and word choices to make writing interesting.	Uses a variety of sentence structures and word choices to make writing interesting.
	Conventions	Follows standard conventions of grammar and punctuation.	Follows standard conventions of grammar and punctuation.	Follows standard conventions of grammar and punctuation.	Follows standard conventions of grammar and punctuation.

Grade 4 Assessment **A7.16** Unit 7 (Moving Through Space)

Writing, Revising, and Editing Test A7.14–A7.15

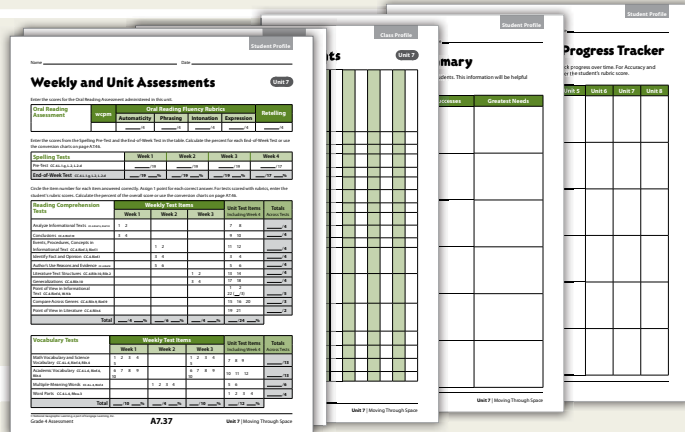
Writing Rubric A7.16



ExamView®

# Reteach and Practice

## REPORTS



### PRINT & ONLINE Report Forms

- Student Profile: Weekly and Unit Assessments** A7.37–A7.38
- Class Profile: Weekly and Unit Assessments** A7.39
- Student Profile: Strengths and Needs** A7.40
- Student Profile: Oral Reading Progress Tracker** A1.3

## RESOURCES AND ROUTINES

### Reading

#### RETEACH

- Explain Scientific Text: Reteaching Master RT7.3**
- Fact and Opinion: Reteaching Master RT7.4**
- Synthesize: Reteaching Master RT7.5**

#### ADDITIONAL PRACTICE

Comprehension Coach [NGReach.com](http://NGReach.com)

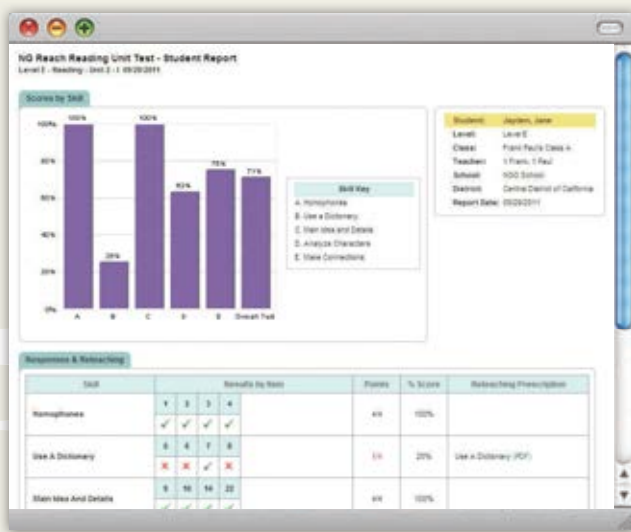
### Fluency

#### RETEACH

Fluency Routines, page BP33

#### ADDITIONAL PRACTICE

Comprehension Coach [NGReach.com](http://NGReach.com)



eAssessment™

### ONLINE ONLY Automated Reports

- Student Profile: Weekly and Unit Tests**
- Class Profile: Weekly and Unit Tests**
- Standards Summary Report**

### Vocabulary and Spelling

#### RETEACH

- Vocabulary Routine 6, page BP40**
- Spelling and Word Work Routine, page BP52**

#### ADDITIONAL PRACTICE

Vocabulary Games [NGReach.com](http://NGReach.com)  
Daily Spelling Practice, pages T445i–T445j

### Grammar and Writing

#### RETEACH

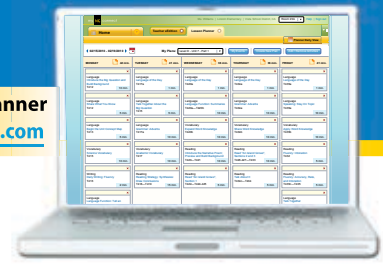
- Adverbs: Anthology Handbook, page 609**
- Writing: Reteaching Writing Routine, page BP51**
- Writing Trait: Sentence Fluency: Reteaching Master RT7.6**

#### ADDITIONAL PRACTICE

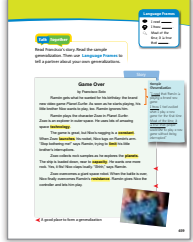
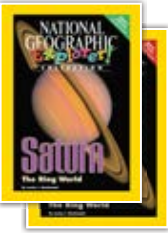

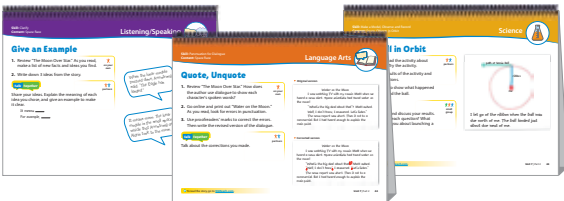
More Grammar Practice PM7.16  
Daily Writing Skills Practice, pages T445m–T445n

# Week 3 Planner

Online Lesson Planner  
NGReach.com



☑ = TESTED

		Day 1	Day 2
<b>WHOLE GROUP TIME</b>		<b>Read and Comprehend</b>	
<b>Anthology</b>	<b>Speaking and Listening</b> 🕒 5–10 minutes	<b>Listen and Comprehend</b> <b>Academic Talk</b> Clarify T454 CC.4.SL.1.c	<b>Academic Talk</b> Report on a Concept T456a CC.4.SL.4; CC.4.SL.6
	<b>Language and Vocabulary</b> 🕒 20 minutes	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; ☑ Words with VCV, VCCV CC.4.Rfou.3.a; CC.4.L.1.g; Patterns T453s CC.4.L.2; CC.4.L.2.d; CC.4.L.4.c <b>Daily Grammar</b> CC.4.L.1; CC.4.L.1.a; CC.4.L.3 ☑ Relative Adverb <i>when</i> T453u <b>Science Vocabulary</b> CC.4.Rlit.4; CC.4.Rinf.4; ☑ Learn Key Words T454 CC.4.L.6 <b>astronaut launch orbit planet rotation</b>	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; ☑ Practice T453s CC.4.Rfou.3.a; CC.4.L.2.d <b>Daily Grammar</b> CC.4.L.1; CC.4.L.1.a; CC.4.L.3 ☑ Relative Adverbs <i>where, why</i> T453u <b>Academic Vocabulary</b> CC.4.Rlit.4; CC.4.Rinf.4; ☑ Learn More Key Words T456a CC.4.L.6 <b>capacity constant limit resistance technology</b>
	<b>Reading</b> 🕒 20–40 minutes	<b>Reading</b> CC.4.Rlit.10 Read Aloud: Realistic Fiction T455a <b>Comprehension</b> CC.4.Rlit.10 ☑ Comprehend Plot T445a  <b>Fluency</b> CC.4.Rfou.4 ☑ Model Expression T455a	<b>Reading</b> CC.4.Rlit.10 Read Realistic Fiction; Read and Build Comprehension T459 <b>Comprehension</b> CC.4.Rlit.10 ☑ Synthesize T458 
	<b>Writing</b> 🕒 15–45 minutes	<b>Power Writing</b> T454 CC.4.W.10 <b>Daily Writing Skills</b> CC.4.W.3.e ☑ Use a Concluding Sentence T453w <b>Writing</b> CC.4.W.10 Write to Retell T456  <b>Writing Project: Original Story</b> CC.4.W.3; CC.4.W.3.a; Study a Model T477a CC.4.W.3.e; CC.4.W.5; CC.4.W.10; CC.4.L.1; CC.4.L.1.a; CC.4.L.3	<b>Power Writing</b> T456a CC.4.W.10 <b>Daily Writing Skills</b> CC.4.W.3.e ☑ Use a Concluding Sentence T453w <b>Writing</b> CC.4.W.10 Write Generalizations T458–T459  <b>Writing Project: Original Story</b> CC.4.W.3; CC.4.W.3.a; Prewrite T477b CC.4.W.3.e; CC.4.W.5; CC.4.W.10; CC.4.L.1; CC.4.L.1.a; CC.4.L.3
	<b>SMALL GROUP READING TIME</b>		<b>Read Science Articles</b>
<b>Fiction &amp; Nonfiction</b>	🕒 20 minutes	<b>Vocabulary</b> CC.4.L.6 Learn Science Vocabulary SG17 <b>Reading</b> Comprehend Visual Information SG16 Build CC.4.Rinf.10 Comprehension SG17 	<b>Vocabulary</b> CC.4.L.6 Learn Story Words SG18–SG19 <b>Reading</b> CC.4.Rlit.1; CC.4.Rlit.2; Introduce CC.4.Rlit.10; CC.4.SL.4 SG18–SG19 Read and Integrate Ideas SG20–SG21 ☑ Form Generalizations SG20–SG21 ☑ Comprehend Plot SG20–SG21 
	<b>LEARNING STATION TIME</b>		<b>Read Fiction Books</b>
<b>Learning Station</b>	🕒 20 minutes	<b>Speaking and Listening</b> T453q CC.4.SL.1.d; CC.4.SL.2 <b>Language and Vocabulary</b> T453q CC.4.L.6 <b>Writing</b> T453q CC.4.L.2; CC.4.W.3.b <b>Cross-Curricular</b> T453r CC.4.SL.4; CC.4.W.7; CC.4.W.8 <b>Reading and Intervention</b> CC.4.Rlit.10; CC.4.Rfou.3; T453r, SG68 CC.4.Rfou.3.a; CC.4.Rfou.4; CC.4.Rfou.4.b; CC.4.Rfou.4.c 	

**BIG Question** What does it take to explore space?

### Day 3

**Read and Comprehend**

**Academic Talk** CC.4.Rfou.4.a  
Preview and Predict T460

**Daily Spelling and Word Work** CC.4.Rfou.3; CC.4.Rfou.3.a;  
✓ Practice T453t CC.4.L.1.g; CC.4.L.2

**Daily Grammar** CC.4.L.1; CC.4.L.1.a; CC.4.L.3  
✓ Review Relative Adverbs T453v

**Vocabulary Practice** CC.4.L.6  
✓ Expand Word Knowledge T460

---

**Reading** CC.4.Rlit.10  
Read Realistic Fiction T461–T467


**Comprehension** CC.4.Rinf.1  
✓ Comprehend Plot T466–T467  
✓ Form Generalizations T466–T467  
Identify Dialogue CC.4.Rinf.1 T464–T465

**Fluency** CC.4.Rfou.4; CC.4.Rfou.4.b  
✓ Practice Expression, Accuracy, and Rate T462–T463

**Power Writing** T460 CC.4.W.10  
**Daily Writing Skills** CC.4.W.3.e  
✓ Use a Concluding Sentence T453x

**Writing** CC.4.W.10; CC.4.L.2; CC.4.L.3  
Write Dialogue T468–T469

**Writing Project: Original Story** CC.4.W.3; CC.4.W.3.a; CC.4.W.3.e; CC.4.W.5; CC.4.W.10; CC.4.L.1; CC.4.L.1.a; CC.4.L.3  
Draft T477b



### Day 4

**Read and Comprehend**

**Academic Talk** CC.4.Rlit.2  
Summarize Reading T470

**Daily Spelling and Word Work** CC.4.Rfou.3; CC.4.Rfou.3.a;  
✓ Practice T453t CC.4.L.2; CC.4.L.4.c

**Daily Grammar** CC.4.W.5; CC.4.L.1; CC.4.L.1.a;  
✓ Edit and Proofread T453v CC.4.L.3

**Vocabulary Practice** CC.4.L.6  
✓ Share Word Knowledge T470

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**Reading** CC.4.Rlit.10  
Read Realistic Fiction T470–T475

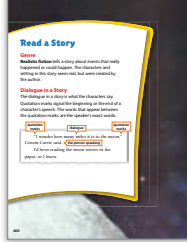
**Comprehension** CC.4.Rfou.4.a  
✓ Comprehend Plot T472–473  
✓ Form Generalizations C.4.Rfou.4.a T472–473

**Fluency** CC.4.Rfou.4; CC.4.Rfou.4.b  
✓ Practice Expression, Accuracy, and Rate T471

**Power Writing** T440 CC.4.W.10  
**Daily Writing Skills** CC.4.W.3.e  
✓ Use a Concluding Sentence T453x

**Writing** CC.4.W.10  
Artist's Craft T475a

**Writing Project: Original Story** CC.4.W.3; CC.4.W.3.a; CC.4.W.3.e; CC.4.W.5; CC.4.W.10; CC.4.L.1; CC.4.L.1.a; CC.4.L.3  
Revise; Edit and Proofread T477c–T477d



### Day 5

**Review and Apply**

**Academic Talk** CC.4.Rlit.1  
Talk About It T476

**Daily Grammar** CC.4.L.1; CC.4.L.1.a; CC.4.L.3  
✓ Review and Assess T453v

**Vocabulary Review** CC.4.L.6  
✓ Apply Word Knowledge T475b

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**Reading**  
Read Realistic Fiction T461–T475

**Comprehension** CC.4.Rlit.2  
✓ Comprehend Plot T476a

**Fluency** CC.4.Rfou.4.b  
✓ Check Expression, Accuracy, and Rate T477

**Power Writing** T475b CC.4.W.10  
**Daily Writing Skills** CC.4.W.3.e  
✓ Use a Concluding Sentence T453x


**Writing** CC.4.W.10  
Write About It T476

**Writing Project: Original Story** CC.4.W.3; CC.4.W.3.a; CC.4.W.3.e; CC.4.W.5; CC.4.W.10; CC.4.L.1; CC.4.L.1.a; CC.4.L.3  
Publish and Present T477d

**Read Fiction Books**

**Vocabulary** CC.4.L.6  
Learn Story Words SG18–SG19


**Reading** CC.4.Rlit.1; CC.4.Rlit.2; CC.4.Rlit.10; CC.4.SL.4  
Introduce SG18–SG19  
Read and Integrate Ideas SG20–SG21  
✓ Form Generalizations SG20–SG21  
✓ Comprehend Plot SG20–SG21



**Read Fiction Books**

**Vocabulary** CC.4.L.6  
Learn Story Words SG18–SG19

**Reading** CC.4.Rlit.1; CC.4.Rlit.2; CC.4.Rlit.10; CC.4.SL.4  
Introduce SG18–SG19  
Read and Integrate Ideas SG20–SG21  
✓ Form Generalizations SG20–SG21  
✓ Comprehend Plot SG20–SG21




**Read Fiction Books**

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG18–SG21

**Reading** CC.4.Rlit.10  
Connect Across Texts SG21

**Writing** CC.4.W.10  
Choose a Writing Option SG20–SG21



**ASSESSMENT & RETEACHING**



**Assessment and Reteaching** T477e–T477f

✓ Reading Comprehension Test A7.16–A7.17 CC.4.Rinf.1; CC.4.Rinf.2

✓ Reading Strategy Assessment SG57–SG58 CC.4.Rlit.10

✓ Oral Reading Assessment A7.1–A7.3 CC.4.Rfou.4.a

✓ Vocabulary Test A7.18–A7.19 CC.4.L.b; CC.4.L.6

✓ Spelling Test: Words with VCV, VCCV Patterns T453s CC.4.Rfou.3; CC.4.L.1.g; CC.4.L.2; CC.4.L.2.d; CC.4.L.4.c

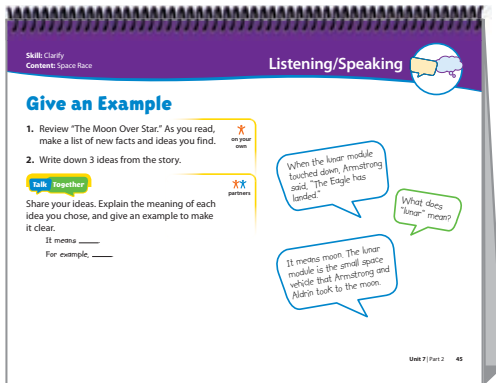
✓ Writing, Revising, and Editing Test A7.20–A7.21 CC.4.W.10; CC.4.L.1; CC.4.L.3

Reteaching Masters RT7.7–RT7.9

# Week 3 Learning Stations

## Speaking and Listening

### Option 1: Give an Example



**Give an Example**

- Review "The Moon Over Star." As you read, make a list of new facts and ideas you find.
- Write down 3 ideas from the story.

**Talk Together**

Share your ideas. Explain the meaning of each idea you chose, and give an example to make it clear.

It means \_\_\_\_  
For example, \_\_\_\_

When the lunar module touched down, Armstrong said, "The Eagle has landed!"

What does "lunar" mean?

It means moon. The lunar module is the small Apollo vehicle that Armstrong and Aldrin took to the moon.

### PROGRAM RESOURCES

Language and Literacy Teamwork Activities: Card 45

Teacher's Guide on [NGReach.com](https://www.ngreach.com)

Review Key Ideas and Explain Ideas and Understanding

CC.4.SL.1.d

### Option 2: Restate Moon Facts



[NGReach.com](https://www.ngreach.com) Student Resources

Have students view a video about the Moon and restate the facts they learn in sequential order. To view the video, have students go to Resources > Unit 7 > Learning Stations > Week 3 > Moon 101.

After restating the facts, have students discuss how the images in the video added to their understanding of the facts.

Paraphrase Text, Visual, and Oral Information CC.4.SL.2

## Language and Vocabulary

### Key Words

astronaut · capacity · clarify · constant  
generalization · launch · limit · orbit  
planet · resistance · rotation · technology

### Option 1: Vocabulary Games

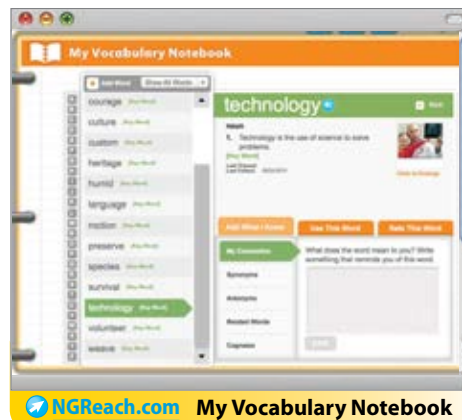


[NGReach.com](https://www.ngreach.com) Online Vocabulary Games

Acquire and Use Conversational, General Academic, and Domain-Specific Words

CC.4.L.6

### Option 2: My Vocabulary Notebook



[NGReach.com](https://www.ngreach.com) My Vocabulary Notebook

Have students expand their word knowledge.

- Under Add More Information > Use This Word > Restate the Definition, have students use their own words to restate definitions of the Key Words.
- Under Add More Information > Use This Word > Write a Sentence, have students write sentences that include relative adverbs such as *when*, *where*, and *why*.

Acquire and Use Conversational, General Academic, and Domain-Specific Words

CC.4.L.6

## Writing

### Option 1: Quote, Unquote



**Quote, Unquote**

- Review "The Moon Over Star." How does the author use dialogue to show each character's spoken words?
- Go online and print out "Water on the Moon." As you read, look for errors in punctuation.
- Use proofreaders' marks to correct the errors. Then write the revised version of the dialogue.

**Talk Together**

Talk about the corrections you made.

**Original version**

Writer on the Moon  
I was watching TV with my cousin Matt when we heard a news alert. Space scientists had found water on the moon.  
"What's the big deal about that?" Matt asked.  
"Well, I don't know. I remember. Let's listen."  
The news report was about. Then it cut to a commercial. But I had heard enough to explain the main point.

**Corrected version**

Writer on the Moon  
I was watching TV with my cousin Matt when we heard a news alert. Space scientists had found water on the moon.  
"What's the big deal about that?" Matt asked.  
"Well, I don't know. I remember. Let's listen."  
The news report was about. Then it cut to a commercial. But I had heard enough to explain the main point.

### PROGRAM RESOURCES & MATERIALS

Language and Literacy Teamwork Activities: Card 44

Teacher's Guide on [NGReach.com](https://www.ngreach.com)

Student Resources Directory

list of proofreaders' marks (optional)

Demonstrate Command of Punctuation

CC.4.L.2

### Option 2: What Would You Say?

"Did you ever think that you would see a person walking on the moon?" I asked Gramps.  
"To be honest, I never did," said Gramps. "It's the most amazing thing I've ever seen."

Have students reread **Anthology** pages 472–473 of "The Moon Over Star." Then display the writing prompt:

Imagine that you are talking to Gramps after the moon landing. What would you say? Rewrite the dialogue in the scene that you just read. Be sure to use correct punctuation and capitalization.

Encourage students to read their finished dialogue to a partner.

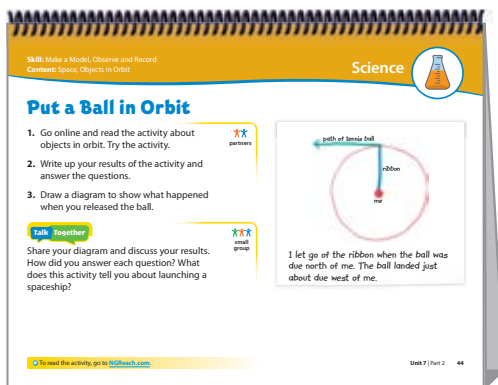
Use Dialogue

CC.4.W.3.b



**Cross-Curricular**

**Option 1: Put a Ball in Orbit** 



**PROGRAM RESOURCES & MATERIALS**

**Cross-Curricular Teamwork Activities:**  
**Card 44**

**Teacher's Guide on** 

**Student Resources Directory**

*ribbon • tennis balls • colored markers*

Conduct Research	CC.4.W.7
Gather Information	CC.4.W.8
Recount an Experience	CC.4.SL.4

**Option 2: How Does Space  Research Affect People?**

Did you know that the technology for battery-powered tools was first created to help astronauts?

**MATERIALS**

*encyclopedia • library books • online resources*

Have students use library and online resources to learn about ways that people have benefited from NASA's space research.

Each student should focus on one helpful product or technology that was developed for the space program.

Have students share their research findings in small groups.

Conduct Research	CC.4.W.7
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**Reading**

**Option 1: Comprehension Coach** 



 **Comprehension Coach**

Read and Comprehend Literature	CC.4.Rlit.10
Read with Accuracy and Fluency to Support Comprehension	CC.4.Rfou.4
Read Orally with Accuracy and Appropriate Rate on Successive Readings	CC.4.Rfou.4.b

**Option 2: Author Study** 

Dianna Hutts Aston

**Comparison Chart**

	Headings	Illustrations	Captions
Title			
Title			

**MATERIALS**

*books by Dianna Hutts Aston, such as A Butterfly Is Patient, Dream Something Big, An Egg Is Quiet, and A Seed Is Sleepy*

As students read multiple books over the week, have them develop the comparison chart.

Then have partners use their charts to discuss the similarities and differences in the books, including features such as headings, illustrations, and captions.


Students may wish to select from additional recommended books. See **Independent Reading** on page SG68.

Read and Comprehend Informational Texts	CC.4.Rlit.10
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**Intervention**

**Option 1: Phonics Games** 



 **Online Phonics Games**

Apply Phonics and Word Analysis Skills	CC.4.Rfou.3
Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words	CC.4.Rfou.3.a

*For Reteaching Masters, see pages RT7.7–RT7.9.*

**Additional Resources**

**Reach into Phonics** 



Lessons 109 and 110

Use Context to Confirm or Self-Correct Word Recognition and Understanding	CC.4.Rfou.4.c
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**ESL Kit** 



ESL Teacher's Edition pages T454–T477

# Week 3 Daily Spelling & Word Work

## OBJECTIVES

**Thematic Connection: Exploring Space**

- ✓ Spell Words with VCV, VCCV Patterns
- ✓ Use Commonly Misspelled Words Correctly

## SUGGESTED PACING

DAY 1	Pretest
DAY 2–4	Daily Practice Options
DAY 5	Test

### Spelling Pretest

Day 1



### Spelling Test

Day 5



## Spelling Words

Use these words and sentences for the weekly Spelling Pretest and Spelling Test.

### Words with VCV, VCCV Patterns

1. cluster	Is that group, or <b>cluster</b> , of stars a constellation?
2. commander	She is in charge of the flight because she is the <b>commander</b> .
3. future	Scientists predict what space exploration will be like in the <b>future</b> .
4. goggles	Early aviators wore <b>goggles</b> to protect their eyes when they flew planes.
5. helium	<b>Helium</b> gas inside the balloon causes it to rise.
6. helmet	We cannot see the astronaut's face behind her space suit <b>helmet</b> .
7. lunar	I would like to be part of a <b>lunar</b> landing and walk on the moon!
8. massive	Some objects in space are small, but others are <b>massive</b> .
9. pilot	The <b>pilot</b> flew the plane through storm clouds.
10. platform	The astronaut stood on a wooden <b>platform</b> so the crowds could see her.
11. public	Is all the data about the flight <b>public</b> , or is some of the information secret?
12. seldom	I <b>seldom</b> read science fiction stories, but my friend reads them all the time.
13. signal	My brother whistled, and that was the <b>signal</b> to go outside and see the full moon.
14. tablet	I wrote notes about the rocket launch on a <b>tablet</b> .
15. vapor	Thin clouds crossed the moon like a white <b>vapor</b> .

### Watch-Out Words

16. missed	We <b>missed</b> the liftoff because we were stuck in a traffic jam.
17. mist	The cars were backed up because of fog and <b>mist</b> .
18. sail	The wind catches the boat's <b>sail</b> and moves it through the water.
19. sale	The sailboat is expensive, so I'll buy it when it goes on <b>sale</b> .

### VCV Pattern

Day 2



Option 1

### MATERIALS

index cards, 5 per pair of students • highlighters • scissors • tape

### Teach

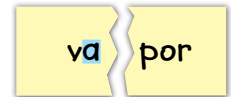
Display the word *vapor*. Circle *a* and pronounce the word. *If the first vowel sound in a word is long, you usually divide the word after that vowel.*

### Prepare

- Have pairs of students collaborate to write each of these words on a separate card, leaving room to cut between each letter: *future, helium, lunar, pilot, vapor*.
- Tell students to highlight the first vowel in each word.
- Have pairs cut each word in two after the first vowel, scramble the cards, and lay them out in a grid pattern with the words facing down.

### Play a Game

- Have partners alternate turning cards. As each card is turned over, the other partner suggests and spells the missing part to recreate a spelling word. Partners will spell words twice as they find both parts.
- Then have students tape the cards back together, divide them equally between both partners, and alternate reading words for the other to spell.



Apply Phonics and Word Analysis Skills

CC.4.Rfou.3

Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words

CC.4.Rfou.3.a

### Word Scramble

Day 2



Option 2

### MATERIALS

scissors • print or online dictionary, 1 per student • timer

### Prepare

- Assign four to seven different spelling words depending on group size to each student. Make sure that each spelling word is assigned.
- Have students print each word with room to cut between letters. Have each student cut words into letters, and mix letters together.

### Play a Game

- Have students exchange piles of letters and reassemble as many words as they can in a designated time period, using a dictionary if needed.
- Tell students that each correct spelling scores one point.
- Have students trade letters with a new partner and play again.

Spell Grade-Appropriate Words

CC.4.L.2.d



VCCV Pattern

Day 3



Option 1

MATERIALS

large sheets of white paper, 10 per group • black markers • tape • yardstick

Teach

Display helmet, circle the letters lm, and pronounce the word. Explain: When two consonants come between two vowels, you usually divide the word between the two consonants.

Prepare

Have groups make word signs. Tell them to print each of these words in large letters on a separate sheet of paper: cluster, commander, goggles, helmet, massive, platform, public, seldom, signal, tablet.

Play a Game

- Have a group member choose a word sign and tape it on the board.
• Have another use a yardstick to show where to syllabicate the word.
• Have other group members decide if the word is syllabicated correctly, directing the student to move the yardstick if necessary.
• After the word is syllabicated correctly, have the first student remove the sign and call out the word for the group to spell chorally.
• Have students take turns and continue until all words have been syllabicated and correctly spelled.

Apply Phonics and Word Analysis Skills Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words CC.4.Rfou.3 CC.4.Rfou.3.a

Word Hints

Day 3



Option 2

Create Memory Aids

Have individuals produce creative hints to aid memory of each Watch-Out Word. For example:

- Students can write the word mist in little dots to represent mist.
• Students can write the word sale with a dollar sign for the letter s.



Use Frequently Confused Words Demonstrate Command of Spelling CC.4.L.1.g CC.4.L.2

Sort Patterns

Day 4



Option 1

MATERIALS

colored pencils • index cards, 15 per pair

Prepare

- Have partners draw two pictures. Each picture shows an item whose name represents one of the patterns, such as a raven (VCV long-vowel sound), and a cactus (VCCV).
• Tell students to label their pictures.
• Have partners collaborate to write each of the first 15 spelling words on a separate card.

Play a Game

- Have partners arrange the drawings in a row on a table, and put the cards face up in a stack.
• Have students take turns placing a word card beneath the drawing with the matching pattern.
• After all the cards have been placed, have one partner take the VCV cards, and have the other partner take the VCCV cards.
• Have partners alternate reading a word aloud. The listener spells the word and uses it in a sentence.

Apply Phonics and Word Analysis Skills Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words CC.4.Rfou.3 CC.4.Rfou.3.a

Word Webs

Day 4



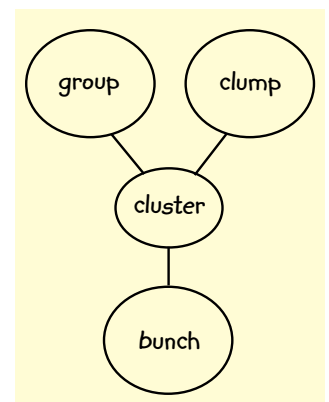
Option 2

MATERIALS

print or online thesaurus

Use Graphic Organizers

- Have students collaborate to make a separate Word Web for each of these words: cluster, commander, massive, mist, pilot, platform, seldom, signal, tablet, vapor.
• Have students write the spelling word in the center of the web.
• Have students use a thesaurus to find synonyms to add to the web.
• Have students use each spelling word in a sentence.



Word Web

Demonstrate Command of Spelling Consult References CC.4.L.2 CC.4.L.4.d

## OBJECTIVES

**Thematic Connection: Exploring Space**

**Grammar: Use Relative Adverbs**

## COMMON CORE STANDARDS

Edit Writing

Demonstrate Command of Grammar

Use Relative Adverbs

CC.4.W.5

CC.4.L.1

CC.4.L.1.a

## Day 1

### PROGRAM RESOURCES

Relative Adverb *when*: eVisual 7.22

Game: Practice Master PM7.18

### MATERIALS

brads • large paper clips

## Teach the Rules

Use the suggestion on page T456 to review independent and dependent clauses and to introduce the relative adverb *when*. Explain: *A relative adverb relates a dependent clause to a noun in the main clause.* Then display eVisual 7.22.

### Relative Adverb *when*

- A clause that begins with **when** is a **dependent clause**. The clause gives time details about a **noun** or **pronoun** in the main clause. **When** is a relative adverb.

Monday is the **day when the shuttle lifts off.**

[NGReach.com](#) Relative Adverb *when*: eVisual 7.22

Point to the parts of the sentence as you explain: *In this sentence, the dependent clause tells more about the noun day.*

## Play a Game

Have small groups use **Practice Master PM7.18** to play a game. Tell students to follow the directions on the Practice Master.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar Game**  
**Relative Adverb Spinner**

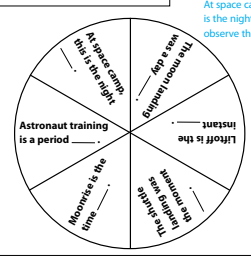
Directions:

- Take turns spinning the spinner.
- Complete the sentence with a dependent clause that begins with the relative adverb *when*.
- Play until you have completed all the sentences. Then play another round!

Responses will vary, but the dependent clause in each sentence must begin with *when*. Example: At space camp, this is the night when we observe the stars.

**Make a Spinner**

- Put a paper clip over the center of the spinner.
- Touch the point of a pencil on the middle of the wheel and through the loop of the paper clip.
- Spin the paper clip to make a spinner.



For use with TE p. 245a PM7.18 Unit 7 | Moving Through Space

[NGReach.com](#) Practice Master PM7.18

## Differentiate

### SN Special Needs

**ISSUE** Students are overwhelmed by the spinner and sentences in circle segments.

**STRATEGY** Display the sentences in a simple list for students. Have students choose a sentence on the list by pointing without looking and proceed with the game as described on the **Practice Master**.

## Day 2

### PROGRAM RESOURCES

Relative Adverbs *where, why*: eVisual 7.25

## Teach the Rules

Use the suggestion on page T459 to introduce the relative adverbs *where* and *why*. Then display eVisual 7.25 and review that a relative adverb introduces a dependent clause.

### Relative Adverbs *where, why*

- A clause that begins with **where** is a **dependent clause**. The clause gives location details about a **noun of place** in the main clause. **Where** is a relative adverb.
- A clause that begins with **why** is also a **dependent clause**. The clause gives details about the **noun reason** in the main clause. **Why** is a relative adverb.

Level Two is the **area where the astronauts sleep.**

A mechanical problem was the **reason why the launch was cancelled.**

[NGReach.com](#) Relative Adverbs *where, why*: eVisual 7.25

## Generate Sentences

Have students apply the grammar skills as they write sentences:

- Pretend you are an astronaut training to go into space. Write two sentences with the relative adverb *where*.
- Now write two sentences with the relative adverb *why*.

For **Writing Routine 3**, see page BP49.

## Differentiate

### AL Above Level

**ISSUE** Students are confused by the word *adverb* relating to a clause that modifies a noun instead of a verb.

**STRATEGY** Reinforce that in this type of sentence, the entire dependent clause acts as an adjective. Have students write sentences with relative adverbs, highlight the dependent clause, and draw an arrow from the highlighted clause to the appropriate noun.



Day 3

MATERIALS

highlighters

Teach the Rules

Use the suggestions on page T468–469 to review dependent clauses and the relative adverbs when, where, and why. Display the chart and have students suggest other examples.

Relative Adverb	What It Does	Example
when	relates to a noun of time	May is the month <b>when</b> we plant flowers.
where	relates to a noun of place	This is the shop <b>where</b> I got my bike.
why	relates to the noun reason	The flu is the reason <b>why</b> I could not come.

Play a Game

Arrange the class into teams. Have each team write six independent clauses in the pattern \_\_\_\_ is the \_\_\_\_, as in the chart. Two should end with a noun of time, two with a noun of place, and two with the word reason. Then tell each team:

- Read your first independent clause aloud. The other team must add a dependent clause that begins with when, where, or why.
- If your team decides that the other team has responded correctly, that team gets a point.
- Take turns reading independent clauses and responding. The team with the most points at the end wins.

Differentiate

BL Below Level

ISSUE Students have difficulty identifying nouns of time or place.

STRATEGY Have groups brainstorm nouns of time and place. Time: parts of a year, day, or hour; specific holidays; and any time something can happen. Place: areas of Earth or outer space, places in your community or school, rooms in a home, and anywhere something can happen.

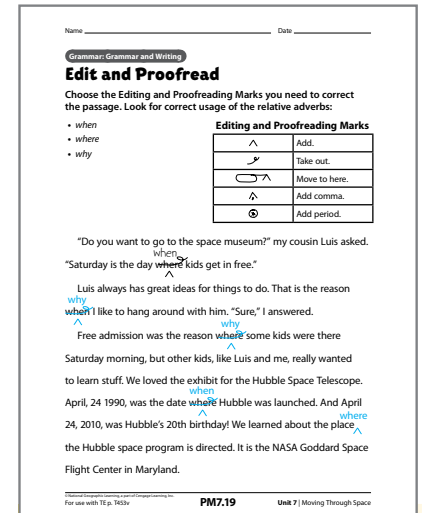
Day 4

PROGRAM RESOURCES

Grammar and Writing: Practice Master PM7.19

Grammar and Writing

Distribute Practice Master PM7.19. Have students use editing and proofreading marks to correct errors with relative adverbs when, where, and why.



NGReach.com Practice Master PM7.19

Day 5

PROGRAM RESOURCES

Writing, Revising, and Editing Test: Assessment Masters A7.20–A7.21

Review and Assess

Have pairs of students create a chart to review what they learned about the relative adverbs when, where, and why.

Have partners collaborate to create a three-column chart. Explain:

- In Column 1, list the relative adverbs when, where, and why.
- In Column 2, write the definition of each relative adverb in your own words.
- In Column 3 write two sentences for each relative adverb as examples of how the word is used in a sentence.

When students are finished, have each pair get together with another pair to compare and contrast their charts.

Administer the Writing, Revising, and Editing Test.

# Week 3 Daily Writing Skills

## OBJECTIVES

Thematic Connection: Exploring Space

✔ Use a Concluding Sentence

## COMMON CORE STANDARDS

Provide a Conclusion

CC.4.W.3.e

### Introduce Concluding Sentences Day 1

#### PROGRAM RESOURCES

Concluding Sentences: eVisual 7.23

Plot Diagram #1: eVisual 7.24

### Teach the Skill

Display eVisual 7.23 and read the story aloud.

#### Concluding Sentences

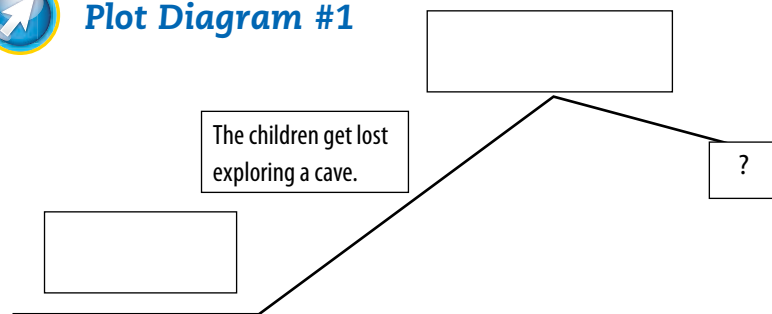
Major Tom Elton was flying his final Space Shuttle mission. All was going smoothly on the return to Earth until the cabin lights began to flicker. It was an electrical short. To repair it meant going outside the spacecraft! Unless they returned to orbit, a repair was impossible. With the lights failing rapidly, he swung the spacecraft around. Once they were back in orbit, Co-Captain Silber steered the craft in the dimming lights while Tom worked feverishly outside. After several hours, bright light flooded the cabin and Tom re-entered the spacecraft.

 NGRReach.com Concluding Sentences: eVisual 7.23

 INTERACTIVE WHITEBOARD TIP: Circle the concluding sentence.

Explain: *Tom's problem is that his spacecraft has an electrical short. The concluding sentence makes it clear that the problem is resolved. It ties up the "loose ends."*

#### Plot Diagram #1



 NGRReach.com Plot Diagram #1: eVisual 7.24

 INTERACTIVE WHITEBOARD TIP: Circle the second box, where the story's problem is given.

Display eVisual 7.24. Explain that a plot diagram can help writers plan their stories. Model how this writer might come up with a conclusion: *I ask myself, "What event could resolve the problem?" If the children find a flashlight and figure out how to use it, they can put out a signal for help. I can end with a sentence that tells how the parents see the signal.* Have students suggest a concluding sentence for the story.

### Identify Concluding Sentences Day 2 Option 1

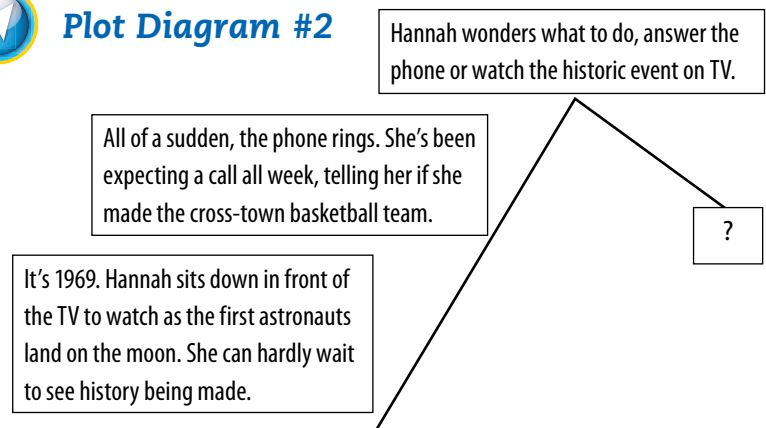
#### PROGRAM RESOURCES

Plot Diagram #2: eVisual 7.26

### Practice

Display eVisual 7.26. Have partners view the diagram and decide which of the sentences would make the better concluding sentence and why.

#### Plot Diagram #2



#### Concluding sentences:

- Hannah hears her mother shout, "I'll get it!" and breathes a big sigh of relief.
- Hannah realizes that she cares about both things equally.

 NGRReach.com Plot Diagram #2: eVisual 7.26

 INTERACTIVE WHITEBOARD TIP: Underline words and phrases that tell how Hannah feels.

### Write a Concluding Sentence Day 2 Option 2

### Practice

Display and have partners discuss the story below and work together to develop a concluding sentence that resolves the story's problem.

Evan couldn't wait to visit the moon. He and his parents talked about what they would explore first. Everything was arranged, including a dog-sitter for their beagle, Barney. Two days before the trip, the dog-sitter had to cancel. They couldn't leave Barney! How could they go on their trip? Then Dad had an idea. \_\_\_\_\_ .

Have pairs of students compare their sentences. Have each pair explain why their sentence provides a satisfying conclusion to the story.



## SUGGESTED PACING

- DAY 1 Teach the Skill
- DAY 2–4 Daily Practice Options
- DAY 5 Review and Assess

### Concluding Sentence Dialogue Day 3 Option 1

#### PROGRAM RESOURCES

Digital Library: Language Builder Picture Card E86

#### Introduce

Explain that concluding sentences can be as interesting as introductory sentences. Elaborate: *An introductory sentence grabs readers' attention. A concluding sentence should be just as interesting. It should make readers feel satisfied about what they have read. Including dialogue in your concluding sentence is one way to create an interesting and exciting story conclusion.*

#### Practice

Display the **Language Builder Picture Card** of zero-gravity training. Tell partners that they may either write a brief short story or fill in a plot diagram like the one displayed on Day 2. The story or plot diagram must be based on the image.

Tell them to include dialogue in their concluding sentence. If students need help writing a concluding sentence, provide the following possibilities:

- " \_\_\_\_\_," said \_\_\_\_\_, as (she/he) floated to the ceiling on (her/his) first shuttle flight.
- As the shuttle landed, \_\_\_\_\_ said, "I'll never forget \_\_\_\_\_."

### Discuss Concluding Sentences Day 3 Option 2

#### MATERIALS

a variety of short fiction passages

#### Introduce

Explain to students that studying a variety of concluding sentences can help them write better concluding sentences of their own.

#### Practice

Direct students to a few short stories they have already read. Have students identify the concluding sentence in each story. Ask: *Which stories do you think have good concluding sentences? Why?* Have students write notes about the concluding sentences they studied and then share their notes and examples with the class.

### Revise Concluding Sentences Day 4

#### MATERIALS

timer

#### Introduce

Review the importance of revision in writing. Have students discuss what they do when they revise their work. Then ask: *What if you change a plot element in a story you have written? Why might you need to revise your concluding sentence?*

#### Practice

Have students choose a piece of fiction from their Weekly Writing folders that needs additional revision. Set the timer for ten minutes and have students make their revisions. Have them pay special attention to their concluding sentences and determine whether they need revisions to make them more interesting, to reflect plot changes, or to tie together other story elements more effectively.

### Review and Assess Day 5

#### PROGRAM RESOURCES

Writing, Revising, and Editing Test:  
Assessment Masters A7.20–A7.21

#### Review the Skill

Ask students to write a paragraph about the characteristics of a good concluding sentence. Point out that the paragraph should have a concluding sentence of its own that ties together the information.

 Administer the **Writing, Revising, and Editing Test**.

## OBJECTIVES

**Thematic Connection: Exploring Space**

- Use Domain-Specific Words
- Comprehend Plot

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

**Plot Diagram: Practice Master PM7.17**

**Family Newsletter 7**

### TECHNOLOGY ONLY

**Sing with Me MP3**

**Digital Library: Key Word Images**

**My Vocabulary Notebook**

**Read Aloud: eVisual 7.21**

## MATERIALS

timer

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *moon*.

For **Writing Routine 1**, see page BP47.

## COMMON CORE STANDARDS

### Reading

Determine the Meanings of Words and Phrases	CC.4.Rlit.4
Read and Comprehend Literature	CC.4.Rlit.10
Determine the Meanings of Domain-Specific Words	CC.4.Rinf.4
Read with Fluency to Support Comprehension	CC.4.Rfou.4

### Writing


Write Over Shorter Time for Specific Purposes	CC.4.W.10
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### Speaking and Listening

Pose and Respond to Questions	CC.4.SL.1.c
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### Language and Vocabulary

Acquire and Use Academic and Domain-Specific Words	CC.4.L.6
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## WARM-UP

Ask: *What sorts of things might you see if you were standing on the moon?* (Possible responses: rocks, craters, ridges, the sun, Earth) Have student pairs think about and discuss how Earth might look from the moon.

## Academic Talk

### 1 Clarify Anthology page 454

Read aloud the instructions and play the **Sing with Me Language Song**: “Let’s Go to the Moon.” Explain: *When you clarify, you restate your sentence another way to make the meaning clearer.* Model clarifying the third line of the song: *Let’s say someone does not know what creature means. I can clarify by defining the word and giving an example: A creature is an animal, such as a bear. I can also restate the text to show what I mean: There are not any animals living on the moon.*

Have partners work together to clarify the line “If you want some more space” from the song. Have students brainstorm and discuss other situations in which they might need to clarify information by listening for details.

## Science Vocabulary

### 2 Key Words Anthology page 455

Explain and model using **Vocabulary Routine 1** and the photos on **Student eEdition** page 455 to learn the Key Words.

- **Pronounce the word** and point to the image: **launch**.
- **Rate the word.** Hold up your fingers to show how well you know the word. (1 = very well; 2 = a little; 3 = not at all) Tell what you know about this word.
- **Define the word:** To **launch** means to send up into the air.
- **Elaborate.** Relate the word to your experience: When I was young, I saw NASA **launch** the first space shuttle.

For **Vocabulary Routine 1**, see page BP34.

For more images of the Key Words, use the **Digital Library**.

Have partners take turns repeating the routine for each word from page 455. Have each student add the words to **My Vocabulary Notebook**.

See **Differentiate**

### Key Words

astronaut · launch · orbit  
planet · rotation



NGReach.com My Vocabulary Notebook





- It means \_\_\_\_\_.
- For example, \_\_\_\_\_.

## Clarify

Listen to Francisco's song. Then use **Language Frames** to clarify information about the moon.

Song ((MP3))

### LET'S GO TO THE MOON

Look up in the night for a circle that's bright.  
Yes, it means you should look for the moon.  
There are no creatures there—  
for example, no bears.  
Let's all ride in a spaceship there soon.

Chorus

Let's go to the moon.  
On our way we can all sing this tune.  
If you want some more space,  
then the moon is the place  
We will have lots of room on the moon.

Tune: "Home on the Range"



454

astronaut  
launch  
orbit  
planet  
rotation

## Key Words

Look at the photos. Use **Key Words** and other words to talk about how you could teach younger children about space.

### Tools for Teaching Very Young Children About Space



**action figure: astronaut** As you talk about modern space travelers, let the children play with this astronaut. They can show the astronaut at work.

**globe** Use the globe as you teach children that Earth is a **planet**. Show them that planets are round. Demonstrate how the Earth **rotates**, or spins.



**space shuttle model** Tell children that many astronauts travel in the space shuttle. Demonstrate how the space shuttle **launches**, or takes off from Earth. Then use the model and the globe to show how the space shuttle **orbits**, or moves around, Earth.



**solar system model** Use the model as you tell children about the other planets in the solar system. Demonstrate how the planets orbit around the Sun.

### Talk Together

What does it take for astronauts to explore space? Try to use **Language Frames** from page 454 and **Key Words** as you clarify your ideas with a partner.

455

## STUDENT TECHNOLOGY



Student eEdition



Sing with Me



My Vocabulary Notebook



Resources

Anthology  
pages 454–455

### 3 Talk Together Anthology page 455

Have students recall what they know about space exploration as well as what they learned from "Building for Space Travel" (page 447). Then encourage partners to use Key Words as they discuss what it takes for astronauts to explore space. Provide an example: **Astronauts must be launched into orbit.**

## Check & Reteach

**OBJECTIVE:** Use Domain-Specific Words ✓

As students discuss what it takes for astronauts to explore space, listen for correct usage of the Key Words.

If students use words incorrectly, ask questions that use the words. For example:

- *What is the name of the **planet** we live on?*
- *What things **orbit** the Sun?*
- *What are some things that **astronauts** do?*

Encourage students to answer each question by repeating the Key Word. (Possible response: We live on the **planet** Earth.)

## Weekly Writing

Gather students' writing throughout the week:

- ✓ Daily Writing Skills Practice (T453s–T453t)
- ✓ Power Writing (T454, T456a, T460, T470, T475b)
- ✓ Writing (T456, T458–T459, T468–T469, T475a, T476)
- ✓ Writing Project (T477a–T477d)

## Differentiate

### EL English Learners

**ISSUE** Students do not understand definitions.

**STRATEGY** Provide translations of the Key Words. Access **Family Newsletter 7** for translations in seven languages. Use cognates for Spanish speakers:

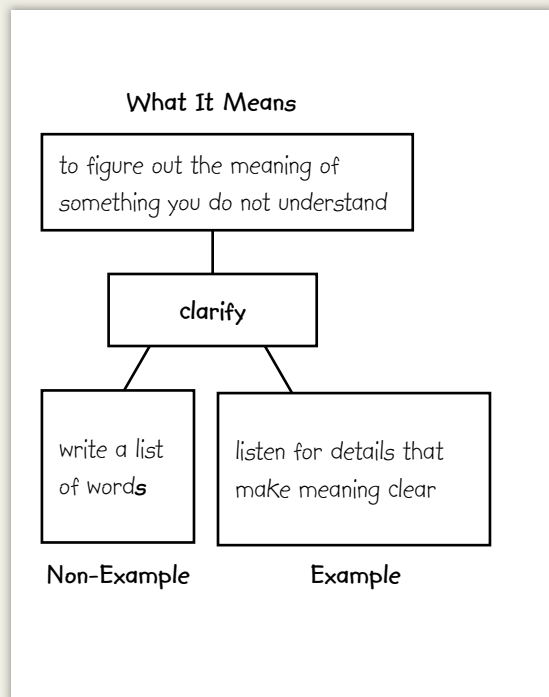
astronaut/astronauta launch/lanzar  
orbit/orbitar planet/planeta rotation/rotación

### SN Special Needs

**ISSUE** Students have difficulty learning new vocabulary.

**STRATEGY** Have students focus on learning one Key Word at a time by adding that word, its definition, and an original sentence using that word to **My Vocabulary Notebook**. They can find definitions and examples in the **Picture Dictionary** on page 617.

## Word Map



## Fluency

**Model Expression** Explain the concept: *Fluent readers put feeling into their voices to help make the meaning of the words clear and to add interest to whatever they are reading.* Model expression with the first paragraph of the **Read Aloud**. Have students practice expression by reading aloud “Let’s Go to the Moon” on **Anthology** page 454.

## Comprehension

4 **Plot** **Anthology** page 456

Read aloud the first paragraph on page 456. Reinforce: *The **plot** is the events, or actions, that make up a story. Usually, characters have a problem to solve as part of the **plot**.* Use a Word Map to teach the term **clarify**. Then display **eVisual 7.21** and read aloud “Francisco’s Rocket.”



## Read Aloud

Realistic Fiction

## Francisco’s Rocket

Francisco and his father spent weeks building a rocket for Francisco’s school science project. Saturday morning, they drove to an open field outside town. Out there, no one would get hit by the rocket. Together, they set up the rocket and **launched** it. As the rocket sped higher and higher into the sky, Francisco dreamed of becoming an **astronaut** one day. Suddenly, the rocket **rotated** and turned down toward the ground. When it crashed at the other end of the field, Francisco and his father raced to check it out. “The nose is damaged,” Francisco moaned.

But Francisco’s dad already had a plan to help Francisco fix the nose and then build a parachute for his rocket. During the week, Francisco and his father found materials and designed a parachute that would open before the rocket fell to the ground.

The next Saturday, they **launched** the rocket a second time. Once again, the rocket soared and then turned toward the ground. This time, however, the parachute opened, and Francisco’s rocket floated safely to the ground at his feet. Francisco’s dreams were soaring high again.

**NGReach.com** Read Aloud: **eVisual 7.21**



**INTERACTIVE WHITEBOARD TIP:** Underline words that tell the problem, turning point, and solution.

5 **Map and Talk** **Anthology** page 456

After students read how to fill out a plot diagram, ask questions, such as: *Why is making a parachute the turning point of the story?* (Possible response: It is the part of the story where Francisco and his father figure out how to solve the problem.) Point out where the turning point would appear on the plot diagram.

6 **Talk Together** **Anthology** page 456

Have students use **Practice Master PM7.17** to fill out a plot diagram that they can use to retell a favorite story to a partner.

## Check &amp; Reteach

**OBJECTIVE:** Comprehend Plot

Ask students to identify the plot elements of their partner’s story.

If students have difficulty, have them identify what happens in the beginning, middle, and the end of the story. Then have them identify the problem and locate where an important change occurs. Finally, have students explain how this change solves the problem.



## Plot

The action in a story is the **plot**. Every plot is built around a problem. When you follow the plot, you see:

- one story event leads to the next event
- at the turning point, an important change happens
- when and how the problem is solved

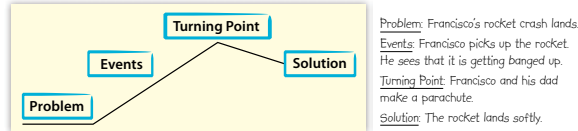
Look at the pictures. Follow the plot.



### Map and Talk

You can use a plot diagram to retell a story. First, tell what the problem is. Then, tell the events in the order they happen. Next, tell the turning point. Last, tell how the problem is solved.

#### Plot Diagram



#### Talk Together

Retell a favorite story to your partner. Use a plot diagram for help.

456

Anthology page 456

## Daily Language Arts

### Daily Spelling and Word Work ✓

Pretest page T453s

### Daily Grammar ✓

Point to the relative adverb *when* in the **Read Aloud**. Then use page T453u to teach the relative adverb *when*.

### Daily Writing Skills ✓

Read aloud the last sentence in the **Read Aloud**, pointing out that it is a concluding sentence. Then use page T453w to teach about concluding sentences.

# Writing

## 7 Write to Retell

Introduce: *Now you will use your plot diagram to retell the plot of the story you discussed with your partner.* Model the process with “Francisco’s Rocket.”

Think Aloud	Write
<i>First, I will write about the beginning of the story.</i>	First, Francisco builds and launches a rocket with his father.
<i>I write about the problem next.</i>	Then the rocket falls and is damaged.
<i>Then, I add the turning point.</i>	Fortunately, Francisco’s father has a plan to fix the rocket.
<i>Now, I write the solution.</i>	They find materials and design a parachute.

For **Writing Routine 2**, see page BP48.

Have students write their summaries and add to their Weekly Writing folders.

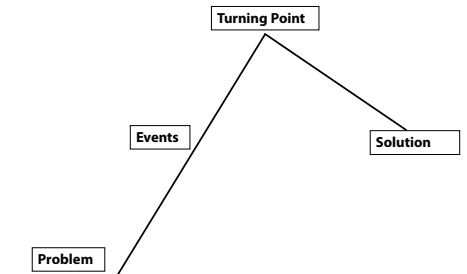
**WRAP-UP** Ask partners to take turns playing the parts of Francisco and a news reporter who is interviewing him. Have students ask questions about and describe what happens to Francisco’s rocket.

Name \_\_\_\_\_ Date \_\_\_\_\_

#### Plot Diagram

### Plot of a Story

Make a plot diagram about a favorite story.



Use the plot diagram to retell your story to a partner.

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For use with TE p. T455a

PM7.17

Unit 7 | Moving Through Space

## OBJECTIVES

**Thematic Connection: Exploring Space**

- Use Academic Words
- Form Generalizations to Comprehend Literature

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

Unit Concept Map: Practice Master PM7.1

Family Newsletter 7


### TECHNOLOGY ONLY

Digital Library: Key Word Images

My Vocabulary Notebook

## MATERIALS

timer



## WARM-UP

Have partners use what they have learned from their readings about space travel to describe an imaginary trip to the moon.

## Power Writing

Have students write as much as they can as well as they can in one minute about being an astronaut.

For **Writing Routine 1**, see page BP47.

## Academic Talk

### 1 Report on a Concept

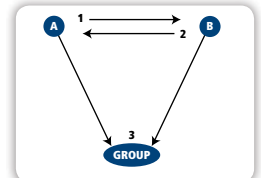
Explain: *When you report on a concept, you present information about an idea. Before giving the information, think about the right type of language for your audience.* Explain that when speaking to friends, you can use informal language. When speaking to an audience to give a presentation, however, you should use more formal language. Read aloud the following sentences and have students identify which kind of language is being used in these two sentences:

- *It would be so cool to find little critters hanging out on the moon.* (informal)
- *It would be a great discovery to find creatures living on the moon.* (formal)

Have students use formal language to report on a concept about space, such as the dangers of space travel or living and working in space. Use a **Three-Step Interview**:

- Partners take turns using formal language to report on a concept about space.
- Individuals listen and write down examples of the formal language they hear.
- Individuals share the examples they noted with the group.

For **Three-Step Interview**, see page BP46.



**Three-Step Interview**

## Academic Vocabulary

### 2 More Key Words Anthology page 457

Explain: *Let's learn some more words to help talk about space.*

Model using **Vocabulary Routine 1** and the images in the **Student eEdition** to learn the Key Words.

- **Pronounce the word** and point to the image: **capacity**.
- **Rate the word.** Hold up your fingers to show how well you know the word. (1 = very well; 2 = a little; 3 = not at all) Tell what you know.
- **Define the word:** The **capacity** of an object is how much it can hold. For example, the **capacity** of many water bottles is about 12 ounces of liquid.
- **Elaborate.** Relate the word to your experience: The **capacity** of this room is thirty students. We have enough desks for thirty people.

For **Vocabulary Routine 1**, see page BP34.

For more images of the Key Words, use the **Digital Library**.

### Key Words

capacity · constant  
limit · resistance  
technology

## COMMON CORE STANDARDS

### Reading

Determine the Meanings of Words and Phrases	CC.4.Rlit.4
Read and Comprehend Literature	CC.4.Rlit.10
Determine the Meanings of Domain-Specific Words	CC.4.Rinf.4
Read with Fluency to Support Comprehension	CC.4.Rfou.4

### Writing

Write Over Shorter Time for Specific Tasks	CC.4.W.10
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### Speaking and Listening

Report on a Topic	CC.4.SL.4
Differentiate Contexts for Formal and Informal English and Use Formal English	CC.4.SL.6

### Language and Vocabulary

Acquire and Use Academic Words	CC.4.L.6
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## More Key Words

Use these words to talk about "The Moon Over Star" and "The First Person on the Moon."

### capacity

(ku-pa-su-tē) noun



The **capacity** of an object is the most it can hold. This bucket has a **capacity** of 1 gallon.

### constant

(kon-stunt) noun



Something that never changes is a **constant**. The number of days in a week is a **constant**.

### limit

(li-mut) verb



To **limit** something is to stop it after a set amount of time. Many parents **limit** TV viewing.

### resistance

(ri-zis-tunts) noun



**Resistance** is a slowing force. Deep snow creates **resistance** when you walk in it.

### technology

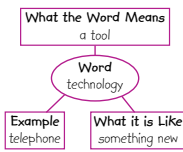
(tek-nah-lu-jē) noun



**Technology** is the use of science to solve problems. Doctors rely on **technology**.

### Talk Together

Work with a partner to complete a Meaning Map for each **Key Word**.



Add words to My Vocabulary Notebook.  
NGReach.com

### STUDENT TECHNOLOGY



Student eEdition



My Vocabulary Notebook



Resources

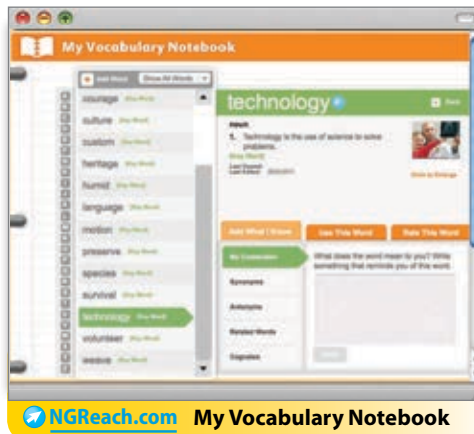
NGReach.com

Anthology page 457

Have partners use **Anthology** page 457 to take turns repeating the routine for each word. Have students add the words to **My Vocabulary Notebook**.

See **Differentiate**

- 3 Talk Together** **Anthology** page 457  
Have partners work together to complete a Meaning Map for each Key Word. Then have partners share their examples and definitions with another pair of students.



NGReach.com My Vocabulary Notebook

## Check & Reteach

**OBJECTIVE:** Use Academic Words ✓

As students discuss their Meaning Maps, listen for correct usage of the Key Words. If students use words incorrectly, ask questions about the words using the Key Word images, such as: *Why is the number of days in a week a **constant**?* Model an answer that includes the Key Word: *The number of days in a week is a **constant** because this number never changes.*

## Best Practices

**Group Strategically** Assess students' strengths and needs periodically and rearrange relevant groupings so that students may grow at their own rates and find themselves continually challenged.

## Differentiate

### EL English Learners

**ISSUE** Students do not understand the Key Word definitions.

**STRATEGY** Provide translations of the Key Words. Access **Family Newsletter 7** for translations in seven languages. Use cognates for Spanish speakers:

*capacity/capacidad*      *constant/constante*  
*limit/limite*              *resistance/resistencia*  
*technology/tecnologia*

### BL Below Level

**ISSUE** Students cannot relate the words to their own experience.

**STRATEGY** Prompt students with sentence frames that relate the Key Words to everyday situations, such as:

- When you see how much water a cup can hold, you find out its \_\_\_\_\_. (**capacity**)
- When you only let your dog play outside for five minutes, you \_\_\_\_\_ her playtime. (**limit**)

## Wordbench

generalization

jen-ru-lu-zā-shun

general      generalize

genus=kind      ize=to cause

tion=makes a noun from an action

Meaning: a general idea that is true for many things

## Comprehension

**4 Learn to Synthesize** ✓ Anthology pages 458–459

Use a Wordbench to teach the term **generalization**. Then project **Student eEdition** page 458 and chorally read the directions. Point to details in the images as you model making a generalization:

- *I see that both astronauts are floating and working in space.*
- *I know that astronauts must deal with the loss of gravity.*
- *Most of the time, it is true that astronauts must be good at adjusting to new situations.*

**5 Talk Together** Anthology page 459

Read aloud the instructions on page 459. Have partners read the first paragraph of the story and the sample generalization together. Then have students restate the generalization in their own words. Ask: *How does making a generalization help you understand Ramón's reaction?* (Possible response: It helps me know how he might feel about being interrupted.) Have partners continue the activity by reading the rest of the story and sharing their generalizations together.

## Check &amp; Reteach

**OBJECTIVE:** Form Generalizations to Comprehend Literature ✓

Ask: *What is one generalization you formed while reading the story?* (Possible response: Most people like to concentrate when they play video games.)

If students have difficulty forming a generalization, encourage them to locate details in the text that describe Ramón's attitude towards the video game. Have them share something they know about the topic. Then have them complete this sentence frame: When they play video games, most people \_\_\_\_\_.

## Writing

**6 Write Generalizations**

Introduce: *I will write a generalization about "Game Over."* Model the process. Encourage students to use the relative adverb *when*.

Think Aloud	Write
<i>First, I write about what I read.</i>	I read that Nico really wants to play Ramón's new game.
<i>Then, I write about what I already know.</i>	I know that when I see somebody playing a fun game, I want to try it, too.
<i>Finally, I write my generalization.</i>	Most of the time it's true that people want to try a fun activity when they see someone else they know having fun.

For **Writing Routine 2**, see page BP48

## Fluency

**Practice Expression** As partners read aloud Francisco's story, circulate and listen for expression.



## Learn to Synthesize

Look at the photographs. Notice details that show what it takes to be a good astronaut. Think about what you already know about space travel.

From this information, you can **form a generalization** about what most astronauts have in common.



You also **form generalizations** when you read.

### How to Form Generalizations

1. As you read, think about the important ideas in the text.
2. Think about how the ideas fit together with what you know or have experienced.
3. Create a statement that seems true for both the text and what you know. Use words like *some*, *many*, *most*, or *all*.

I read \_\_\_\_\_.

I know \_\_\_\_\_.

Most of the time, it is true that \_\_\_\_\_.

458

### Language Frames

- I read \_\_\_\_\_.
- I know \_\_\_\_\_.
- Most of the time, it is true that \_\_\_\_\_.

### Talk Together

Read Francisco's story. Read the sample generalization. Then use **Language Frames** to tell a partner about your own generalizations.

### Story

#### Game Over

by Francisco Soto

Ramón gets what he wanted for his birthday: the brand new video game *Planet Surfer*. As soon as he starts playing, his little brother Nico wants to play, too. Ramón ignores him.

Ramón plays the character Zozo in *Planet Surfer*. Zozo is an explorer in outer space. He uses lots of amazing space **technology**.

The game is great, but Nico's nagging is a **constant**. When Zozo **launches** his rocket, Nico tugs on Ramón's arm. "Stop bothering me!" says Ramón, trying to **limit** his little brother's interruptions.

Zozo collects rock samples as he explores the **planets**. The ship is loaded down, near to **capacity**. He wants one more rock. Yes, it fits! Nico claps loudly. "Shhh," says Ramón.

Zozo overcomes a giant space robot. When the battle is over, Nico finally overcomes Ramón's **resistance**. Ramón gives Nico the controller and lets him play.

#### Sample Generalization

"I read that Ramón is playing a brand new game.  
I know I feel excited when I play a new game for the first time.  
Most of the time, it is true that people would like to play a new game without being interrupted."



◀ A good place to form a generalization

459

Anthology  
pages 458–459

Have students reread "Game Over" and write about other generalizations they can make about Ramón, Nico, or video games. They can share and compare their generalizations with a partner's before adding their writing to their Weekly Writing folders.

See **Differentiate**

## Daily Language Arts

### Daily Spelling and Word Work

Practice page T453s

### Daily Grammar

Read aloud this sentence: *Nico did not understand why Ramón was upset*. Point out that *why* is a word that introduces a dependent clause. Then use page T453u to teach relative adverbs.

### Daily Writing Skills

Point out the concluding sentence on **Anthology** page 459. Then use page T453w to practice using concluding sentences.

## WRAP-UP

Have students write three sentences about what astronauts must be able to do to explore space, and add these sentences to their unit concept maps.

## Differentiate

### AL Above Level

**ISSUE** Students do not write generalizations that apply to many situations.

**STRATEGY** Provide a menu of sentence starters for students to choose, such as: Most of the time \_\_\_\_\_; Many people \_\_\_\_\_; It is usually true that \_\_\_\_\_.

### OBJECTIVES

#### Thematic Connection: Exploring Space

- Comprehend Plot
- Form Generalizations to Comprehend Literature

### PROGRAM RESOURCES

#### TECHNOLOGY ONLY

My Vocabulary Notebook

Read with Me: Selection Recordings:  
MP3 or CD 3 Tracks 4–5

Comprehension Coach

### MATERIALS

timer • self-stick notes

### Power Writing

Have students write as much as they can as well as they can in one minute about planets.

For **Writing Routine 1**, see page BP47.

### COMMON CORE STANDARDS

#### Reading


Read and Comprehend Literature	CC.4.Rlit.10
Refer to Details and Examples When Explaining Text	CC.4.Rinf.1
Read with Fluency to Support Comprehension	CC.4.Rfou.4
Read with Purpose and Understanding	CC.4.Rfou.4.a
Read Orally with Expression on Successive Readings	CC.4.Rfou.4.b

#### Writing

Write Over Shorter Time for Specific Audiences	CC.4.W.10
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#### Language and Vocabulary

Demonstrate Command of Punctuation	CC.4.L.2
Use Knowledge of Conventions	CC.4.L.3
Acquire and Use Academic and Domain-Specific Words	CC.4.L.6



## WARM-UP

Explain: *Today, you will be reading a story that describes how characters react to viewing a real-life event on television—the first moon landing.* Have students name examples of important historical events they have witnessed on television, read about, or learned about using a computer.

## Vocabulary Practice

### 1 Expand Word Knowledge

Students will practice Key Words by creating Frayer Model Organizers. Use **Vocabulary Routine 2** to model how to make an organizer.

- Find the word in the **Picture Dictionary** and read the information about the word.
- Write the word in the center circle.
- Add a definition.
- Add characteristics.
- Add examples.

For **Vocabulary Routine 2**, see page BP35.

#### Key Words

astronaut · capacity · clarify  
constant · generalization · launch  
limit · orbit · planet  
resistance · rotation · technology

Assign a Key Word to each set of partners. After they complete their organizers, have them add the definitions to **My Vocabulary Notebook**. Display the organizers in the classroom.

## Academic Talk

### 2 Preview and Predict

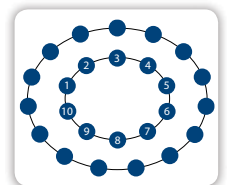
**REVIEW** Remind students: *One way to preview a fictional story is to look at the illustrations and predict what the story will be about.*

Write these Key Words: *astronaut, orbit, planet, technology.*

Have students use a **Fishbowl** to share their predictions about “The Moon Over Star.”

- Students preview the illustrations on **Anthology** pages 462–469 independently.
- Students on the inside share their predictions about pages 462–465, while those on the outside listen for Key Words and support from the text for each prediction.
- Groups change positions. The new inside group shares its predictions about pages 466–469.

For **Fishbowl**, see page BP45.



Fishbowl



## Read a Story

### Genre

**Realistic fiction** tells a story about events that really happened or could happen. The characters and setting in this story seem real, but were created by the author.

### Dialogue in a Story

The dialogue in a story is what the characters say. Quotation marks signal the beginning or the end of a character's speech. The words that appear between the quotation marks are the speaker's exact words.

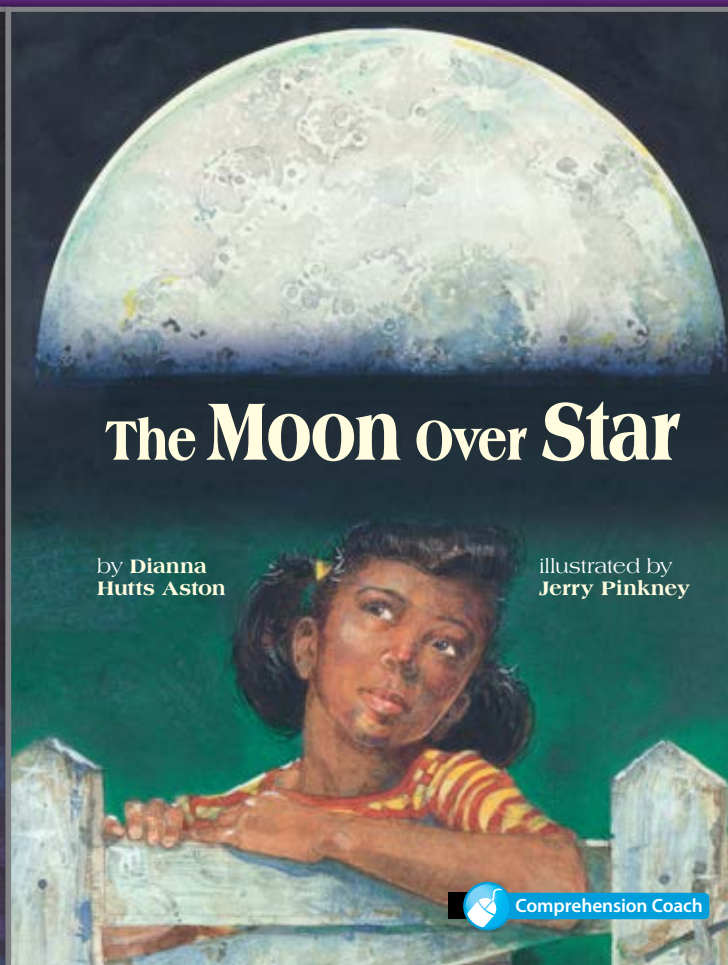
quotation marks

dialogue

quotation marks

"I wonder how many miles it is to the moon,"  
Cousin Carrie said. **the person speaking**  
I'd been reading the moon stories in the  
paper, so I knew.

460



## STUDENT TECHNOLOGY



Student eEdition



Read with Me



Comprehension Coach



My Vocabulary Notebook

NGReach.com

Anthology  
pages 460–461

## Reading

### 3 Read a Story Anthology pages 460–461

**GENRE** Have a volunteer read aloud the definition of realistic fiction. Elaborate: *This selection includes elements of fiction and nonfiction. It is a story with characters, but it also includes facts and information about a real event.*

**DIALOGUE IN A STORY** Ask a volunteer to read aloud the definition of dialogue. Reinforce the concept: *Quotation marks show where each character's dialogue begins and ends. They show when a character is speaking.*

**SCIENCE BACKGROUND** Share information to build background: *In 1969, the rocket ship Apollo 11 carried Neil Armstrong, Buzz Aldrin, and Michael Collins from Earth to the moon. A television camera on the Eagle broadcast Neil Armstrong's first steps on the moon. Many people around the world watched the historic moment.*

Have students read pages 462–469. See **Differentiate**

## Differentiate

### BL Below Level

**FRONTLOAD** Display the Key Words. Read aloud the story, pausing to explain, discuss, and elaborate on the meaning of each Key Word.

### OL On Level

**READ TOGETHER** Have students read the story with partners. Use the questions to build comprehension.

### AL Above Level

**READ INDEPENDENTLY** As students read silently, have them take notes about the plot and use the questions to build comprehension.

## Best Practices

**Encourage Participation** To involve shy or nonparticipatory students, provide time for them to develop and rehearse their predictions in pairs before sharing them with the larger **Fishbowl** groups.

► **Set a Purpose** **1 EL**  
Find out what one family in the town of Star thinks of space travel.

It was a summer's morning in 1969, in the town of Star, where I lived. If all went well, a spaceship carrying **astronauts** Neil Armstrong, Edwin Aldrin, Jr., and Michael Collins would land on the moon today. I dreamed that maybe one day, I could go to the moon, too.

My **gramps** thought the space program was a **waste** of money, but I knew he still thought about the astronauts. I thought about the astronauts' kids and wondered if they were scared—scared but proud. I knew I'd be.



In Other Words  
**gramps** grandfather  
**waste** bad use

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Once upon a summer's noon, my cousins and I scouted **Gran's** watermelon patch for the biggest one. It took three of us to carry it to a tub of ice—three and a half, counting my littlest cousin, Lacey.

We decorated the picnic table with pails of wildflowers. Then, our **chores** done, we built our own spaceship from **scraps** we found in the barn. **2 3 SN**

In Other Words  
**Gran's** Grandmother's  
**chores** work  
**scraps** pieces or parts of things

463

**Anthology**  
pages 462–463

## Fluency

**Practice Expression, Accuracy, Rate** As students read, monitor their expression, accuracy, and rate.

## Read and Build Comprehension

- 1 Set a Purpose** Have a student read aloud the purpose statement. Recall the title of the story to help students set a purpose for reading.
- 2 Compare and Contrast** *How are the main character's feelings about the space program the same as her grandfather's?* (Both think about the astronauts.) *How are they different?* (Possible response: Her grandfather thinks the space program is a waste of money, but she is very excited about it and dreams of being an astronaut someday.)
- 3 Analyze Genre** *What is an example from this realistic fiction story of something that really happened?* (Possible response: In 1969, three astronauts went to the moon.) *What is an example of something that could happen in real life?* (Possible response: The children use scraps to build a make-believe rocket ship.)

## Differentiate

### EL English Learners

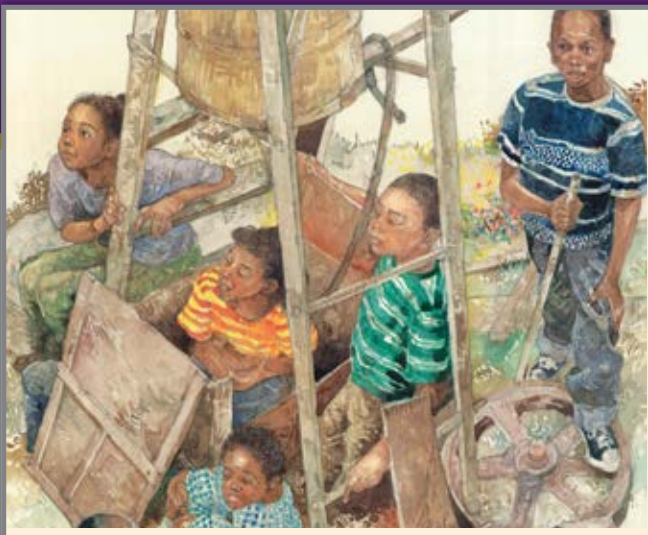
**ISSUE** To set a purpose for reading, students need more preparation than they can get from the preview alone.

**STRATEGY** Conduct a picture walk of the selection, pointing to each illustration, and asking students to predict what the characters will do and feel.

### SN Special Needs

**ISSUE** Students can identify similarities but have difficulties seeing differences.

**STRATEGY** Help students list details about each character and then compare the list to see how the characters are different.



As the oldest grandchild, I got to be **launch controller** and Commander Armstrong.

"**Ignition sequence start** . . . 6, 5, 4, 3, 2, 1, 0. Liftoff, we have liftoff!"

We closed our eyes, imagining **with all our might** the rumble, the roar, and the force of the Saturn **rocket**, blasting the spaceship into the stars. Then we were rushing through space at 25,000 miles per hour.

**In Other Words**

**launch controller** the person in charge of the **launch**

**Ignition sequence start** Start counting backward

**with all our might** as hard as we could

464

"I wonder how many miles it is to the moon," Cousin Carrie said.

I'd been reading the moon stories in the paper, so I knew. "About 240,000 miles," I said. "And some scientists say it's moving away from us—an inch or so farther every year."

I also knew that in May 1961, a month before I was born, President John F. Kennedy had said America would send men to the moon before **the decade was out**.



**Before You Move On**

- 1. Generalize** What is one thing the narrator thinks about space travel?
- 2. Make Comparisons** How is the children's game like a real liftoff?

465

**Anthology**  
pages 464–465

## Mini Lesson

### Identify Dialogue

**Review:** *Lines of dialogue record the exact words that characters say. Quotation marks around dialogue tell where the exact words of a character begin and end. What a character says provides clues about the character's personality and feelings.*

Project **Student eEdition** page 465 and discuss how to identify characters and their dialogue:

- *The first line of dialogue begins with quotation marks and ends with a comma and closing quotation marks. Who says these lines? (Cousin Carrie) How do you know? (The text says, "Cousin Carrie said.")*
- *Point to the dialogue in paragraph 2. Who says these lines? (the narrator who is telling the story) How do you know? (The text says, "I said.")*

Explain that sometimes an author records the inner thoughts of a character. Point out on page 465 where the narrator talks about what John F. Kennedy said. Ask: *How can you tell the difference between the dialogue this character speaks and her inner thoughts? (The dialogue has quotation marks around it.)*

To check understanding, have pairs locate examples of dialogue on pages 466–467 and point out what punctuation is used.

### Answers Before You Move On

- 1. Generalize**  Possible response: The narrator thinks that it would be exciting to travel into space.
- 2. Make Comparisons** The narrator pretends to be the launch controller. The children use the same words and count down the seconds just like a real launch.

**Predict 1**

How will Gramps respond when the first spacecraft lands on the moon?

That afternoon, we were helping

Gramps with the tractor when Gran **hollered**, "Come quick! They're landing!"

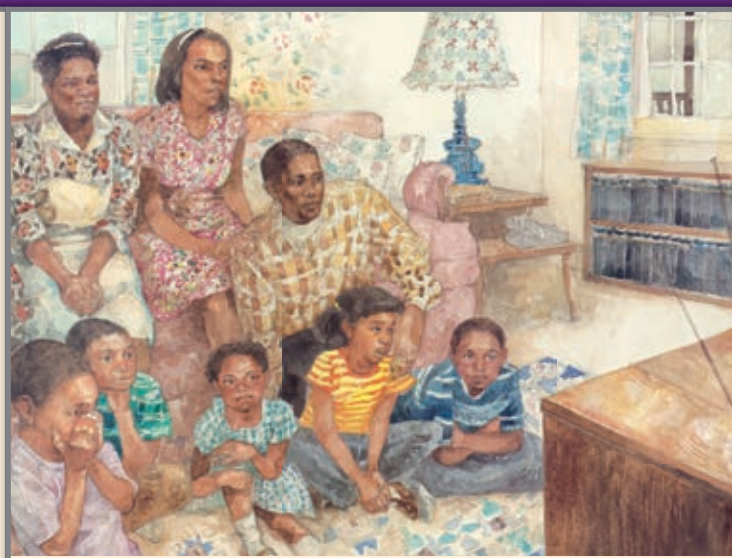
Gramps kept right on **tinkering with** the engine. The rest of us ran **pell-mell** for the house and squirmed around the television screen as it glowed with equal parts of moon and the spaceship called *Eagle*.

We heard the voice of Commander Armstrong directing the landing. "Forward . . . forward," he said.



**In Other Words**  
**hollered** yelled  
**tinkering with** working on  
**pell-mell** in a wild rush

466



Then the newsman we all knew, Walter Cronkite, exclaimed, "Man on the moon!"

For a **split second** we were silent. The whole universe must have been, as we waited to hear the voice of an astronaut 240,000 miles away.

And then: "Houston, **Tranquility Base here.**" Commander Armstrong said. "**The Eagle has landed.**" **2**

**In Other Words**  
**split second** short moment  
**Tranquility Base here** I'm calling from Tranquility Base  
**"The Eagle has landed."** The spacecraft has landed on the moon.



467

**Anthology**  
 pages 466–467

## Daily Language Arts

### Daily Spelling and Word Work ✓

Practice page T453t

### Daily Grammar ✓

Point out the relative adverb *when* on page 469. Then use page T453v to review relative adverbs.

### Daily Writing Skills ✓

Point out the concluding sentence on page 469. Then use page T453x to practice using concluding sentences.

## Read and Build Comprehension

- 1 Predict** Read aloud the predict question. Then ask: *What do you know about Gramps so far?* (Possible response: He thinks the space program is a waste of money.) Have students use what they know to predict how he will act.
- 2 Comprehend Plot** ✓ *What is the problem in the story?* (Possible response: Gramps is the only one who is not excited about the moon landing.)
- 3 Form Generalizations** ✓ *How do you think the family's reaction to the moon landing compares with that of other people?* (Possible response: I read that the children react by cheering. Most of the time, it is true that people are excited to watch important events happening.)

## Check & Reteach

### OBJECTIVE: Comprehend Plot ✓

Check for accurate responses to all of the comprehension questions about plot. If students have difficulty identifying the problem and solution, have them write the plot events on self-stick notes and ask themselves: "Is this something that must be fixed or solved?" They can repeat the process by asking, "Does this solve the problem?"

### OBJECTIVE: Form Generalizations to Comprehend Literature ✓

Check students' responses to comprehension questions about forming generalizations. If students are unable to form generalizations, help them break the process down into steps by asking: *What does the story say? What do you know about other people in this situation? How do these ideas fit together?*

## Answers Before You Move On

- 1. Explain** Gramps is not as excited about the moon landing because he thinks the space program is a waste of money.
- 2. Plot** ✓ The family is watching the moon landing while Gramps is working outside.



**3** Boy, did we cheer, all of the cousins and even the grown-ups—all except Gramps. I remembered something he'd once said:

"Why spend all that money to go to the moon when there are so many folks **in need** right here on Earth?"

"Because we can!" I'd almost shouted, but **caught** myself.

I began to wonder then what Gramps's dreams had been. From the time he was little, he had worked the farm, doing the same jobs, **day to day**, season to season.

**In Other Words**  
**in need** who need money  
**caught** stopped  
**day to day** one day after another



When the **crickets began to sing**, Gramps sat down to rest. I pulled off his **dirt-caked** boots for him and stomped around the porch.

"Gramps, will you watch the moon walk with me tonight?"

"I'm mighty **worn out** today," he said, "but maybe."

Suddenly, I could see how tired he was. Lifetime-tired. There were deep lines in his face—a farmer's face, an old farmer's face.

"All right, Gramps," I said. "It's okay."

**In Other Words**  
**crickets began to sing** evening came  
**dirt-caked** dirt-covered  
**worn out** tired

**Before You Move On**

- 1. Explain** Why isn't Gramps as excited as everyone else about the moon landing?
- 2. Plot** What two events are happening in the story at this point?

## Writing

### 4 Write Dialogue

**REVIEW** *Dialogue tells exactly what a character says. The character's words are enclosed within quotation marks and begin with a capital letter.* Review the rules for punctuating dialogue and have students identify examples of each rule from **Anthology** pages 466–467.

Have students reread pages 463–464 of the story. Then have students work independently to make up dialogue for the characters who are building the spaceship. Remind students to punctuate the dialogue correctly. Have students add their dialogues to their Weekly Writing folders.

See **Differentiate**

## Differentiate

### SN Special Needs

**ISSUE** Students cannot translate made-up dialogue into written form.

**STRATEGY** Have students make audio recordings of their dialogue. As they listen to their recordings, have them write the dialogue in speech balloons for the characters. Work with students to convert the speech balloons into dialogue form.

### AL Above Level

**ISSUE** Students write flat dialogue.

**STRATEGY** Encourage students to use at least one statement, exclamation, question, and command in their dialogue.

## WRAP-UP

Have the class form two groups. Have one group explain how the main character from "The Moon Over Star" feels about the space program, and have the other group explain how Gramps feels about it. Remind groups to base their ideas on evidence from the text. Invite pairs of students, one from each group, to share their explanations with the class.

## OBJECTIVES

**Thematic Connection: Exploring Space**

- ✔ Comprehend Plot
- ✔ Form Generalizations to Comprehend Literature

## PROGRAM RESOURCES

### TECHNOLOGY ONLY

Read with Me: Selection Recordings: MP3 or CD 3  
Track 6

My Vocabulary Notebook  
Comprehension Coach


## MATERIALS

timer

## Power Writing

Have students write as much as they can as well as they can in one minute about something they dream of doing when they are grown up.

For **Writing Routine 1**, see page BP47.



## WARM-UP

Remind students of the pictures of the night sky that they drew on **Family Newsletter 7**. Have students take turns quickly responding to the following prompt: *What do you think of when I say planets? orbit? astronaut? stars? moon?*

## Vocabulary Practice

### 1 Share Word Knowledge ✔

**REVIEW** Have students use the Frayer Model Organizers they made on Day 3.

Group each student with a partner who studied a different Key Word. Have partners follow

#### Vocabulary Routine 3.

- Have students take turns reading their organizers.
- Encourage partners to talk about how the examples help them understand the Key Words.
- Have partners create sentences using both Key Words.
- Have each student add the sentences to **My Vocabulary Notebook**.
- Repeat these steps until students have an entry for each Key Word.

For **Vocabulary Routine 3**, see page BP36.

### Key Words

astronaut · capacity · clarify  
constant · generalization · launch  
limit · orbit · planet · resistance  
rotation · technology

## Academic Talk

### 2 Summarize Reading

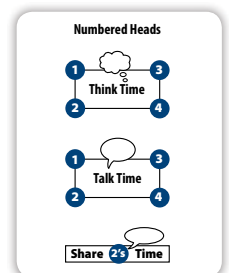
**REVIEW** Remind students: *When you summarize a story, you briefly tell the most important parts.* Explain that students will use Key Words to summarize what they have read of “The Moon Over Star.”

Write these Key Words: **astronaut, orbit, planet.**

Use **Numbered Heads Together** to summarize pages 462–469.

- Arrange students in groups of four, and have them number off within each group.
- Have students think individually about how they would summarize the selection so far.
- Have groups discuss and share their ideas about what belongs in a short summary of “The Moon Over Star.”
- Call a number and have the student from each group with that number report for the group.

For **Numbered Heads Together**, see page BP46.



**Numbered Heads Together**

## COMMON CORE STANDARDS

### Reading

Summarize	CC.4.Rlit.2
Read and Comprehend Literature	CC.4.Rlit.10
Read with Fluency to Support Comprehension	CC.4.Rfou.4
Read with Purpose and Understanding	CC.4.Rfou.4.a
Read Orally with Expression on Successive Readings	CC.4.Rfou.4.b

### Writing

Write Over Shorter Time for Specific Purposes	CC.4.W.10
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### Language and Vocabulary

Acquire and Use Academic and Domain-Specific Words	CC.4.L.6
--	----------

Predict **1** SN

What will the moon walk mean to the narrator?

Once upon a summer's night in 1969, we spread blankets and folding chairs on the edge of the yard, where the buffalo grass grew thick and soft. The cornstalks whispered while we gazed at the pearly slice of moon and the stars, which gleamed like spilled sugar.

What were the astronauts seeing, right at this very second? Could they see beyond the moon, to Mars or Neptune or Jupiter?

What I could see above me, and what I could see in my imagination, were better than any picture show. **2** AL



In Other Words  
gazed looked  
picture movie or television



Later on that summer's night, in 1969, the television screen flashed with words that gave me goose bumps: **LIVE FROM THE SURFACE OF THE MOON.**

Mr. Cronkite said, "... Neil Armstrong, thirty-eight-year-old American, standing on the surface of the moon on this July twentieth, nineteen hundred and sixty-nine!" **3**

In Other Words  
gave me goose bumps thrilled me  
LIVE FROM THIS IS HAPPENING RIGHT NOW ON

STUDENT TECHNOLOGY



Student eEdition



Read with Me



My Vocabulary Notebook



Comprehension Coach

NGReach.com

Anthology  
pages 470–471

# Reading

## 3 Read and Build Comprehension

- 1 Predict** Read aloud the predict question. Ask students to use what they know about the narrator to make their predictions. (Possible response: The moon walk means that the main character's dream of becoming an **astronaut** may one day come true.)
- 2 Make Inferences** *Why does the narrator say that what she imagines is better than what she sees on television?* (Possible response: I know that a television can show only a bit of what the **astronauts** can see. So I think her imagination can take her to many more places in space.)
- 3 Analyze Setting** *Why does the narrator state the date several times in the story?* (Possible response: to tell when the story takes place)

## Differentiate

### SN Special Needs

**ISSUE** Students lack conceptual structure to make predictions.

**STRATEGY** Have students review what they already know from the story. Provide the following sentence frames: I read that \_\_\_\_\_. I predict that next, \_\_\_\_\_.

### AL Above Level

**ISSUE** Students make many inferences, but not all of them are supported by the text.

**STRATEGY** Have students identify the specific evidence in the text on which they base each of their inferences. They may also refer to prior knowledge for support.

## Fluency

**Practice Expression, Accuracy, Rate** Use page 471 to build fluency. Model reading with feeling to accurately express the meaning of the text. Then have students reread the page to a partner. Circulate and monitor fluency.



I didn't know it then, but there were 600 million people **the world over** watching with me and listening, when Commander Armstrong said, "That's one small step for man, one giant leap for mankind."

All of us—from New York to Tokyo to Paris to Cairo . . . to Star—watched it together, the astronauts bounding across the moon like ghosts on a **trampoline**. I felt a hand on my shoulder. **1 AL**

"I **reckon** that's something to remember," Gramps said quietly. **2 BL**



In Other Words  
**the world over** all over the world  
**trampoline** springy surface  
**reckon** guess

trampoline

472



Later, when it was as quiet as the world ever gets, Gramps and I stood together under the moon.

"What's mankind?" I asked him.

"It's all of us," he finally said. "It's all of us who've ever lived, all of us still to come."

I put my hand in his. "Just think, Gramps, if they could go to the moon, maybe one day I could too!"

"Great days," he said, "an astronaut in the family.

**Who'd a** thought?"

I smiled in the dark. My gramps was proud of me. **3**

In Other Words  
**Who'd a** Who would have

473

Anthology  
 pages 472–473

## Read and Build Comprehension

- 1 Form Generalizations** ✓ Review page 472. What **generalization** can you make about the moon landing in 1969? (Possible response: Most of the time, it is true that people like to be a part of an event when history is made.)
- 2 Comprehend Plot** ✓ Which event do you think is the turning point in the story? (Possible response: Gramps joins the family to watch the moon walk.) How does this event show a change? (Possible response: After this, Gramps tells the main character that it is an event to remember.)
- 3 Confirm Predictions** Think about the predictions you made about the importance of the moon walk. Were your predictions correct? Why or why not? (Possible response: Yes, it is important to the narrator because she dreams of going to the moon one day.)

## Differentiate

### BL Below Level

**ISSUE** Students have trouble identifying the turning point in the story.

**STRATEGY** Have each student list key story events. Then have students examine the list to identify where a character changed his or her mind or did something new that helped to solve the problem.

### AL Above Level

**ISSUE** Students over-generalize, going far beyond what the text implies.

**STRATEGY** Have students critique their generalizations by identifying details linked to the text and eliminating those not supported by the text.





“The first airplane I ever saw, I was your age. It was right over **yonder**,” Gramps said, nodding toward the cornfield. “That was something to see.”

A sigh in Gramps’s voice made my heart squeeze.

“Keep on dreaming, Mae,” he said. “Just remember, we’re here now together on the prettiest star in **the heavens**.”

Gramps had **looked to** the moon all of his life. It told him when to plant and when to harvest. And once upon a summer’s night, it told me to dream. ❖

**4** “The first airplane I ever saw, I was your age. It was right over **yonder**,” Gramps said, nodding toward the cornfield. “That was something to see.”

**5** Gramps had **looked to** the moon all of his life. It told him when to plant and when to harvest. And once upon a summer’s night, it told me to dream. ❖

**6** Gramps had **looked to** the moon all of his life. It told him when to plant and when to harvest. And once upon a summer’s night, it told me to dream. ❖

**Before You Move On**

**1. Visualize** What does Mae see when she looks up at the sky? What does she imagine that the **astronauts** see?

**2. Character** How does Gramps change?

In Other Words  
**yonder** there  
**the heavens** space  
**looked to** depended on

474

Anthology page 474

- 4 Analyze Cause and Effect** *Why does seeing the moon walk make Gramps think about the first time he saw an airplane?* (Possible response: Both are remarkable events that were “something to see.”)
- 5 Analyze Figurative Language** *What does Gramps mean when he says he and Mae are “together on the prettiest star in the heavens”?* (Possible response: Gramps values Earth and the time he spends with his granddaughter.)
- 6 Compare and Contrast** *How is what Mae sees in the moon similar to and different from what Gramps sees?* (Possible response: Both Mae and Gramps think that the moon is important. However, Mae sees a dream of adventure and travel, while Gramps sees when to plant and when to harvest.)

## Check & Reteach

**OBJECTIVE: Comprehend Plot** ✓

Check for accurate responses to all the comprehension questions about plot.

If students have difficulty identifying the important parts of a plot, provide the following frames: In the beginning, \_\_\_\_\_. In the middle, \_\_\_\_\_. In the end, \_\_\_\_\_.

**OBJECTIVE: Form Generalizations to Comprehend Literature** ✓

Check for accurate responses to all of the generalization comprehension questions.

If students are unable to form generalizations, remind them that they should make a statement that is true in general. Ask them to think about the situation in the text and picture how people they know in the real world would behave in this situation.

## Best Practices

**Encourage Debate** During discussions, encourage students to ask each other for justification of ideas. Provide examples:

- *You say that Gramps sees the moon only as something that helps him know when to plant crops. What makes you think that?*
- *So are you saying that Mae sees a dream in the moon? Which part of “The Moon Over Star” helps you **clarify** what this dream is?*

## Answers Before You Move On

- 1. Visualize** Mae sees the moon and stars from **planet** Earth. She imagines the **astronauts** can see things that are even farther away.
- 2. Character** At first, Gramps is not interested in the **astronauts**. Later, he realizes that they accomplished something truly amazing.


**AWARD WINNER**

**Meet the Illustrator**

## Jerry Pinkney

As a teenager, Jerry Pinkney worked at a newsstand. Every day he drew pictures of the people walking by. One day, a famous cartoonist stopped and gave him advice. That's when Mr. Pinkney realized he could become a professional artist.

Now when Mr. Pinkney starts drawing, he doesn't know exactly what will happen until his pencil touches the paper. He says, "Then the image comes to life. When I put a line down, the only thing I know is how it should feel."



▲ Jerry Pinkney

**Artist's Craft**

An illustrator has to use the writer's words to help him picture the characters. How do words like "lifetime-tired" help the artist to draw Gramps?

475

Anthology page 475

#### 4 Meet the Illustrator Anthology page 475

Have students silently read the biography. Explain that a newsstand is a stall on the sidewalk where people can stop to buy newspapers and magazines. Help students conclude that Pinkney most likely saw many people he could practice drawing while working at this newsstand.

After students read the biography, build comprehension:

- **Analyze Cause and Effect** *Why was meeting the famous cartoonist an important event in Pinkney's life?* (Possible response: The cartoonist encouraged Pinkney's art.)
- **Make Inferences** *How did drawing every day most likely help Pinkney's art?* (Possible response: I know that if you want to get very good at something, you have to practice a lot. Pinkney probably improved his drawing skills by practicing how to draw pictures of people every day.)
- **Paraphrase** *In your own words, describe the process Pinkney follows when he draws.* (Possible response: He does not plan what he will draw ahead of time. He starts drawing with his pencil and decides what to draw next based on how he feels about the marks he makes.)
- **Make Connections** *Pinkney says that he draws based on how he feels. What does this make you think of?* (Possible response: The way he draws reminds me of when I am writing a story. Sometimes I do not plan it ahead of time. I just write what I feel. Now I understand more about how Pinkney works as an artist.)

# Writing

## 5 Artist's Craft Anthology page 475

Read aloud the instructions in the Artist's Craft feature on page 475. Discuss how an illustrator might use a writer's descriptions to draw characters.

Have students look at the illustrations of Gramps on pages 468–469. Ask: *How do these illustrations support the text descriptions?* (Possible response: The text mentions Gramps's "dirt-caked boots" and how he is "lifetime-tired." In the pictures, I can see his dusty boots and his lined face, which show how tired he is from working hard for so long.)

Explain: *I will take the role of a writer who is writing descriptions of a character for an illustrator to draw.* Model writing descriptive sentences that contain figurative language and precise words.

Think Aloud	Write
<i>I will use figurative language to describe how my main character looks.</i>	Marina's brown eyes sparkled like stars. Her cheeks were two rosy apples set on either side of her wide, smiling mouth.
<i>I will use precise words to tell what my setting looks like.</i>	A dusty road wound through the tall grass toward the small cottage. Three stone steps led up to a wooden door covered with peeling, green paint.

For **Writing Routine 2**, see page BP48.

Have students use figurative language and precise words to write their own descriptive sentences for an illustrator. Have students add their sentences to their Weekly Writing folders.

See **Differentiate**



### Daily Language Arts

#### Daily Spelling and Word Work ✓

Practice page T453t

#### Daily Grammar ✓

Point out the relative adverb *where* in the first sentence on page 470. Then use page T453v to practice relative adverbs.

#### Daily Writing Skills ✓

Point out how the last two sentences on page 474 build a conclusion that resolves the main problem of the plot. Then use page T453x to practice using concluding sentences.

## Differentiate

### BL Below Level

**ISSUE** Students have difficulty writing descriptions.

**STRATEGY** Have students picture their subject and pick two or three details they think they should tell the illustrator about. Provide sentence frames, such as: His face is like \_\_\_\_\_. Her hair is like \_\_\_\_\_.

### AL Above Level

**ISSUE** Students try to include too many details in their descriptions.

**STRATEGY** Have students think about their subject and make a list of details they think they should include. Then have students identify the details that are most important to know to understand the subject. Tell them to use only these details to write descriptive sentences.

**WRAP-UP** Have groups discuss and make lists of figurative language students could use to describe the stars in the night sky. Then have groups exchange and compare their lists.

# Day 5 Review and Apply

## OBJECTIVES

### Thematic Connection: Exploring Space

- ✔ Comprehend Plot
- ✔ Read with Fluency

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

- Test-Taking Strategy Practice: Practice Master PM7.20
- Plot Diagram: Practice Master PM7.21
- Fluency Practice: Practice Master PM7.22

### TECHNOLOGY ONLY

- Online Vocabulary Games
- Read with Me: Fluency Models: MP3 or CD 1 Track 14

## MATERIALS

timer • index cards • yellow marker

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *technology*.

For **Writing Routine 1**, see page BP47.

## COMMON CORE STANDARDS

### Reading

- Refer to Details and Examples When Explaining Text CC.4.Rlit.1
- Summarize CC.4.Rlit.2
- Read Orally with Expression on Successive Readings CC.4.Rfou.4.b

### Writing

- Write Over Shorter Time for Specific Purposes CC.4.W.10

### Language and Vocabulary

- Acquire and Use Academic and Domain-Specific Words CC.4.L.6

## WARM-UP

Tell students they will be playing a Key Word game about space today. Have partners recall information from the texts they have read about space travel. One partner names a Key Word, and the other partner explains briefly how this word relates to the Big Question: *What does it take to explore space?*

## Vocabulary Review

### 1 Apply Word Knowledge ✔

Write: **astronaut** and **orbit**. Display **Student eEdition** page 476 and call students' attention to the other Key Words listed there. Then have students apply their knowledge of the Key Words to create Multiple Key Word skits. Explain the instructions:

- *I will give each small group a list of five Key Words.*
- *Brainstorm how the words relate to each other and turn those ideas into a skit with dialogue that includes all of the Key Words.*

Have students create and perform their skits.

- Assign lists of five or more Key Words to each small group.
- Each group brainstorms ways that the Key Words relate to one another and creates a skit that includes all the Key Words.
- After groups present their skits, the class votes on which skit used the Key Words most accurately.

For **More Vocabulary Routines**, see pages BP41–BP43.

For additional practice, have students play the **Online Vocabulary Games** in pairs or individually.

### Key Words

astronaut • capacity • clarify  
constant • generalization • launch  
limit • orbit • planet  
resistance • rotation • technology

Ever since I became an astronaut, I have been dreaming about when my first rocket will launch!



Key Words	
astronaut	orbit
capacity	planet
constant	resistance
launch	rotation
limit	technology

### Talk About It

1. What seems **realistic** about the story? Give three examples.

The story is realistic because \_\_\_\_\_.

2. Summarize one theme of the story. Explain why you think this is the author's main message. **Clarify** your ideas.

3. Does this story have a first-person narrator or a third-person narrator? Explain how you can tell.

The story has a \_\_\_\_\_. I can tell because \_\_\_\_\_.

Learn test-taking strategies.  
NGReach.com

### Write About It

What image does the author use to describe the **astronauts** as they walk on the moon? How does this help you picture what Mae sees? Write a short paragraph. Use **Key Words** to explain your thinking.

The astronauts look like \_\_\_\_\_.



476

Anthology page 476

#### STUDENT TECHNOLOGY



Student eEdition



Fluency Model



Assessment

NGReach.com

## Academic Talk

### 2 Talk About It Anthology page 476

Have small groups use Key Words as they discuss the **Talk About It** questions. Remind them to use formal language when reporting their ideas.

Then use the test-taking strategy lesson from **NGReach.com** and **Practice Master PM7.20** to ask more questions about the selection.

## Writing

### 3 Write About It Anthology page 476

Call students' attention to the illustration on **Anthology** page 476. Have students summarize the details they see in this image. Then read aloud the directions on **Anthology** page 476.

Prompt students to remember the words Mae uses on **Anthology** page 472 to describe how the astronauts look as they walk on the moon. ("the astronauts bounding across the moon like ghosts on a trampoline") Have students consider how this text description relates to the illustration.

Encourage students to include Key Words in their writing. For example: Mae says that the **astronauts** look like ghosts on trampolines in their space suits.

Have students add their paragraphs to their Weekly Writing folders.

## Daily Language Arts

### Daily Spelling and Word Work ✓

Test page T453s

### Daily Grammar ✓

Write this sentence: A writer's use of descriptive words determines why an illustrator draws a character in a particular way. Explain that *why* is a relative adverb in this sentence. Then use page T453v to review and assess relative adverbs.

### Daily Writing Skills ✓

Read aloud the concluding sentence of "Meet the Illustrator" on **Anthology** page 475. Then use page T453x to assess students' understanding of using concluding sentences.

## Answers Talk About It

1. **Realistic Fiction** Possible response: The story is realistic because what the characters say and do seem real. Also some of the events actually occurred.
2. **Clarify** Possible response: One theme is that dreams are important.
3. **Point of View** This story has a first-person narrator. I can tell because Mae uses the words *I*, *me*, and *my*.

Name \_\_\_\_\_ Date \_\_\_\_\_

#### Test-Taking Strategy Practice

### Read All Choices

Read each question about "The Moon Over Star." Choose the best answer.

#### Sample

- 1 Why isn't Gramps excited about the moon landing?
  - Ⓐ He is working on the tractor in the barn.
  - He thinks the space program is a waste of money.
  - Ⓒ He remembers the first time he saw an airplane.
  - Ⓓ He is too tired to watch the moon landing.
- 2 Astronaut Neil Armstrong said, "The Eagle has landed." What does this mean?
  - Ⓐ An Eagle has landed on the moon.
  - Ⓑ An Eagle has landed on the spacecraft.
  - Ⓒ The spacecraft has landed on an Eagle.
  - The spacecraft has landed on the moon.
- 3 Gramps tells Mae to "keep on dreaming." What is Mae's dream?
  - Ⓐ watching astronauts on television
  - Ⓑ making Gramps proud of her
  - going to the moon
  - Ⓓ flying an airplane

Tell a partner how you used the strategy to answer the questions.

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For use with TE p. T476

PM7.20

Unit 7 | Moving Through Space

NGReach.com Practice Master PM7.20

Differentiate

**EL English Learners**

**ISSUE** Students have difficulty identifying the turning point of the story.

**STRATEGY** Remind students that a turning point is the part of a story at which an important change happens. Have them list several important plot events and identify the turning point at which a character changes his or her mind or does something new.

**SN Special Needs**

**ISSUE** Students have trouble keeping track of the order of events.

**STRATEGY** Write each of the main events on an index card. Have students put the cards in order. Then help them to identify the turning-point event and color it with a yellow marker.

**AL Above Level**

**ISSUE** Students do not use newly acquired vocabulary when discussing the parts of a story.

**STRATEGY** Have students make a list of the content, academic, and/or classroom vocabulary words. Challenge students to use these words in discussing problems, events, turning points, and solutions they have identified.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Plot Diagram**  
**"The Moon Over Star"**  
 Make a plot diagram of "The Moon Over Star."

**Problem**  
 Everyone but Gramps is excited about the space program.

**Events**  
 Gramps stays outside when everyone else goes inside to watch TV. Everyone, except Gramps, cheers when the Eagle lands. Mae asks Gramps to watch the moon walk with her.

**Turning Point**  
 Gramps admits the moon walk is something to remember.

**Solution**  
 Gramps watches the moon walk. Gramps is proud of Mae and her dream of being an astronaut.

**Use your plot diagram to retell the story to a partner.**

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**PM7.21** Unit 7 | Moving Through Space

Comprehension

**4 Plot**  **Anthology** page 477

**REVIEW** Display **Student eEdition** page 477, and read aloud the instructions. Review the important parts of a story: problem, events, turning point, and solution. Have volunteers identify story parts on the plot diagram and read aloud the callouts. Remind students that events must be listed in sequence, or time order.

Review **Anthology** page 469 and model how to identify important information to include in a plot diagram: *The crickets are singing, but that is not an important event to include. Mae asks Gramps to watch the moon landing with her. That is an important event to include because it provides information about how the characters feel about the moon landing.*

Have partners work together to complete **Practice Master PM7.21**. As you circulate, remind students to include only the most important plot events on their diagrams.

Have students use their completed plot diagrams and the sentence frames provided to retell the story of "The Moon Over Star" to a partner. Remind students to use dates, times, and sequence words such as *first*, *then*, and *finally* in their retellings.

Ask: *How did the plot diagram help you to retell the story's events in the correct sequence?* (Possible response: It helped me remember the order in which important events happened and how each event related to the other events.)

See **Differentiate**

**Check & Reteach**

**OBJECTIVE: Comprehend Plot**

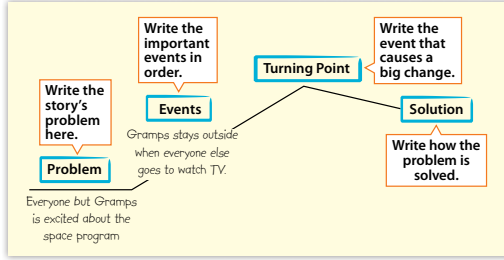
As partners retell the story to each other, circulate and monitor how well students can identify the problem, events, turning point, and solution of a story. If students have difficulty identifying plot elements, have them review the most important events of the story. Ask them to identify the problem. Then have them ask themselves whether or not each event shows a big change in a character or situation. Once students have identified the event that causes a big change, have them describe what the change is and what effect it has on the rest of the story's events.

Reread and Retell

Plot

Make a plot diagram to retell the story of "The Moon Over Star." Include the problem, the important events, the turning point, and the solution.

Plot Diagram



Now use your plot diagram as you retell the story to a partner. Use **Key Words** as you tell what the turning point is and how the problem is solved.

The turning point is \_\_\_\_\_. The problem is solved \_\_\_\_\_.

Fluency Comprehension Coach

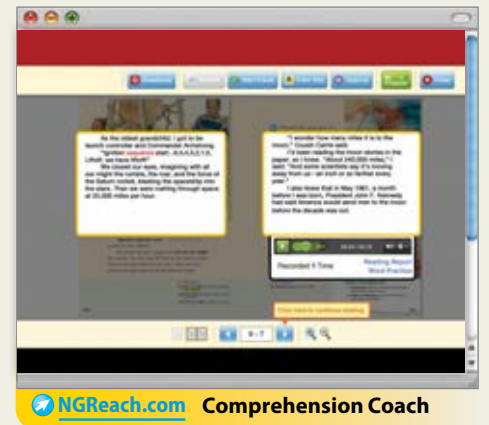
Use the Comprehension Coach to practice reading with expression. Rate your reading.

Talk Together

Role-play a conversation between Mae and Gramps. What does it take to explore space? Use **Key Words** as you answer this question: Is it worth it?

5 Fluency Anthology page 477

Have students read aloud the passage on **Practice Master PM7.22** or use **Comprehension Coach** to practice fluency.



Check & Reteach

**OBJECTIVE:** Read with Fluency

Monitor students' oral reading.

If students need additional fluency practice, have them read along with the **Fluency Models**.

6 Talk Together Anthology page 477

Have students compare Gramps's feelings about the moon landing with Mae's. Then read aloud the directions and have partners role-play a conversation between Mae and Gramps.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Fluency Practice**

**"The Moon Over Star"**

Use this passage to practice reading with proper expression.

Later, when it was as quiet as the world ever gets, Gramps and I stood together under the moon.

"What's mankind?" I asked him.

"It's all of us," he finally said. "It's all of us who've ever lived, all of us still to come."

I put my hand in his. "Just think, Gramps, if they could go to the moon, maybe one day I could too!"

"Great days," he said, "an astronaut in the family. Who'd a thought?"

I smiled in the dark. My gramps was proud of me.

12  
19  
24  
38  
44  
57  
66  
78  
89

From "The Moon Over Star," page 473

**Intonation**

Does not read with feeling.  Reads with appropriate feeling for most content.

Reads with some feeling, but does not match content.  Reads with appropriate feeling for all content.

**Accuracy and Rate Formula**

Use the formula to measure a reader's accuracy and rate while reading aloud.

words attempted in one minute - number of errors = words correct per minute (wcpm)

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**PM7.22** Unit 7 | Moving Through Space

**WRAP-UP** Have partners share opinions about whether or not they think exploring space is important.

## OBJECTIVE

**Thematic Connection: Exploring Space**

✔ Write an Original Story: Organization

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

**Writing Rubric: Assessment Master A7.41**

### TECHNOLOGY ONLY

**Sample Original Story: eVisual 7.27**

**Organization: eVisual 7.28**

**Magazine Maker**

## SUGGESTED PACING

DAY 1	Study a Model
DAY 2	Prewrite
DAY 3	Draft
DAY 4	Revise/Edit and Proofread
DAY 5	Publish and Present

## Write an Original Story

Display and read aloud the prompt.

You are writing a short story about space travel. You plan to submit your story to a movie producer in hopes of having your idea turned into a science fiction movie!

## Study a Model

### Read an Original Story

Explain: *Let's read one student's original story.* Display and read aloud **eVisual 7.27**.



### Sample Original Story

#### Ten Million Miles from the Sun

I live in a research lab, where my parents work. For us, the material called Sunpel is a life-saver. Without Sunpel, we would all be cooked. That almost happened last month when the lab got hit by an asteroid. That hit made a tiny chink in the Sunpel skin of the lab, and the heat started trickling in. Within an hour, the lab felt like a sauna. If it continued to heat up, we would be broiled alive within two hours. As the alarms blared and the temperature kept climbing, we all started to panic.

Then I remembered my newest science kit. It had a small spray bottle of Sunpel in it. Quickly, I ran to get the bottle and began spraying Sunpel directly on the spot. Gradually, the blasting heat stopped. We were saved!

In the next interplanetary mail pickup, my family placed a thank-you gift to the space kit company. We sent a piece of the asteroid that had damaged our lab. It turns out there was gold in it. What a well-deserved reward!

[NGReach.com](https://www.ncreach.com)

**Sample Original Story:**  
**eVisual 7.27**



**INTERACTIVE WHITEBOARD TIP:** Underline the sentences that describe the story problem.

## Review the Trait: Organization

Review: *The events of a story should be presented in order. Readers should understand how one event leads to the next.* Display and read aloud **eVisual 7.28**.



### Writing Trait: Organization

A well-organized story:

- is based around a problem
- shows how one event leads to the next until the problem is solved.

[NGReach.com](https://www.ncreach.com)

**Organization: eVisual 7.28**



**INTERACTIVE WHITEBOARD TIP:** Circle the words *problem* and *solved*.

## COMMON CORE STANDARDS

### Writing

Write Narratives	CC.4.W.3
Establish a Situation and Organize Events in a Sequence	CC.4.W.3.a
Provide a Conclusion	CC.4.W.3.e
Plan, Revise, and Edit Writing	CC.4.W.5
Write Over Extended Time Frames for Specific Tasks, Purposes, and Audiences	CC.4.W.10

### Language and Vocabulary

Demonstrate Command of Grammar	CC.4.L.1
Use Relative Adverbs	CC.4.L.1.a
Use Knowledge of Conventions	CC.4.L.3

Display **eVisual 7.27** again. Discuss how the author makes the events easy to follow. Also discuss the final paragraph and why it is such a satisfying conclusion to the story.





# Prewrite

## Choose a Topic

Reread the first sentence of the prompt. Ask: *What is your role?* (story writer) Continue with the prompt in order to determine the Role, Audience, and Form for the RAFT.

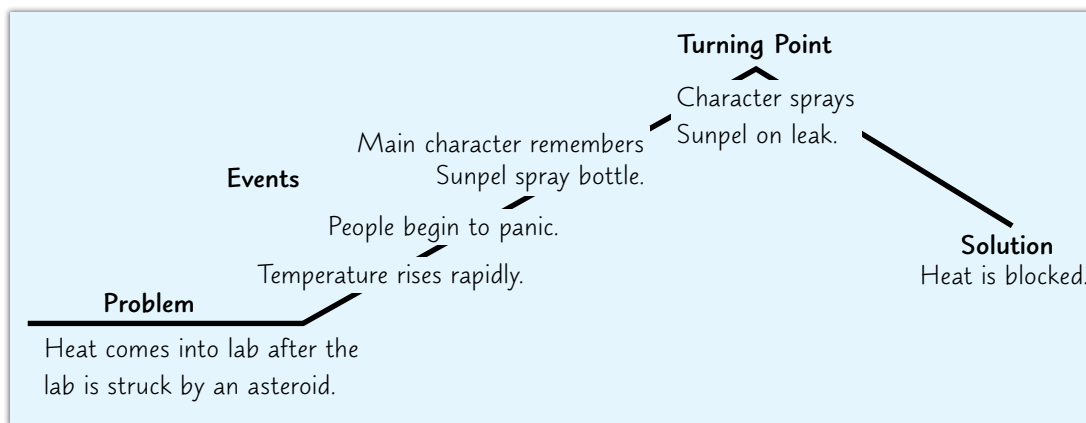
- Role:** Story writer
- Audience:** Movie producer
- Form:** Original short story

Have students look at **Magazine Maker** photos of people, space, and technology. Encourage them to choose several photos that inspire ideas for their stories. Have students work independently to view images and complete the RAFT.



## Get Organized

Review the sample: *“Ten Million Miles from the Sun” has a plot that is easy to follow.* Display a plot diagram and review: *Using a plot diagram can help you plan your story.* Model using the information from the sample to complete the plot diagram.



Plot Diagram

Have students create and use their own plot diagrams to help them plan their stories.

# Draft

## Write Ideas

Have students begin their drafts by inserting the photographs they chose using **Magazine Maker**. Then have students draft their original stories. Explain that they can be as creative as they like with their page layout by wrapping text around the photograph and using different fonts and colors for their writing. Remind students to focus on organization as they draft their stories.

See **Differentiate**

## Differentiate

### SN Special Needs

**ISSUE** Students have difficulty organizing thoughts in writing.

**STRATEGY** Have students tell you their ideas for a story, then work with them to complete a plot diagram. Remind students that their stories can be very short, just three paragraphs (problem, events leading to turning point, and solution), with two or three sentences in each paragraph. When students have written their drafts, assist them in writing a concluding sentence.



## Daily Language Arts

### Daily Spelling and Word Work ✓

Practice pages T453s–T453t.

### Daily Grammar ✓

Have students find examples of the relative adverbs (*where* and *when*) in the sample story “Ten Million Miles from the Sun” and in the **Anthology**. Use pages T453u–T453v to practice using relative adverbs that introduce dependent clauses.

### Daily Writing Skills ✓

Point out the concluding sentence in the sample story “Ten Million Miles from the Sun” and remind students that the purpose of a concluding sentence is to bring a sense of completion to the whole story. Then use pages T453w–T453x to practice writing concluding sentences.

## Revise

### Read, Retell, Respond

Have students read aloud their drafts to partners. Have listeners retell the story in their own words and offer ideas to improve organization. Display language frames to guide the discussion.

#### Language Frames

Retell	Make Suggestions
The story problem is _____.	I'm not sure why _____ happens after _____. Could you tie it together better?
Important events are _____.	
The turning point is _____.	The ending might be stronger if you _____.
The problem is solved when _____.	

### Make Changes

Have students revise their writing. Remind students to make sure their stories are well-organized. Ask students to concentrate on their story endings. Does the concluding sentence wrap up the action and let readers know that the story has come to an end?

Demonstrate how to crop, move, and resize images in **Magazine Maker**: *Select the image you want from the library and drag it into position. Move the image around on the page by clicking and dragging on the upper left corner of the image. Resize the image by clicking and dragging on the lower right corner of the image.*

See **Differentiate**

#### Student Sample: Revise

Then I remembered my newest science kit. It had a small spray bottle of Sunpel in it. Quickly, I ran to get the bottle and began spraying Sunpel directly on the spot. Gradually, the blasting heat stopped.

In the next interplanetary mail pickup, my family placed a thank-you gift to the space kit company. We sent a piece of the asteroid that had damaged our lab. It turns out there was gold in it. I

#### Sample Analysis

I think the turning point needs to feel more dramatic. I will add a sentence here.

I need a concluding sentence. The story just seems to suddenly end.

## Differentiate

### BL Below Level

**ISSUE** Students have difficulty crafting concluding sentences.

**STRATEGY** Explain that a concluding sentence wraps up the plot, action, and events in the story. Often, it shows how the characters feel happy because the problem has ended. Have students compare the endings of the revision model and the final model. Discuss how the last sentence of the final model includes emotion, which makes the reader feel the satisfaction of the main character.



# Edit and Proofread

## Check the Story

Have students check their grammar and spelling, focusing on the Week 3 spelling words and on the proper use of relative adverbs that introduce dependent clauses.

### Student Sample: Revise

I live in a research lab. My parents work here. For us, the material called Sunpel is a life-saver. Without Sunpel, we would all be cooked. That almost happened last month when the lab got hit by an asteroid. That hit made a tiny chink in the Sunpel skin of the lab, and the heat started trickling in. Within an hour, the lab felt like a sauna. If it continued to heat up, we would be broiled alive within two hours. As the alarms blared and the temperperature kept climbing, we all started to panic.

### Sample Analysis

I can use the relative adverb *where* to combine the first two sentences. I think it will read better that way.

I misspelled *temperature*. I need to correct that.

# Publish and Present

## Make a Final Copy

Remind students that **Magazine Maker** allows them to upload and use images from their own computers. Encourage students to try different layouts or add pictures to personalize the look of their stories.

### Student Sample: Publish

**Ten Million Miles from the Sun**

**I live in a research lab, where my parents work. For us, the material called Sunpel is a life-saver. Without Sunpel, we would all be cooked. That almost happened last month when the lab got hit by an asteroid. That hit made a tiny chink in the Sunpel skin of the lab, and the heat started trickling in. Within an hour, the lab felt like a sauna. If it continued to heat up, we would be broiled alive within two hours. As the alarms blared and the temperature kept climbing, we all started to panic.**

**Then I remembered my newest science kit. It had a small spray bottle of Sunpel in it. Quickly, I ran to get the bottle and began spraying Sunpel directly on the spot. Gradually, the blasting heat stopped. We were saved!**

**In the next interplanetary mail pickup, my family placed a thank-you gift to the space kit company. We sent a piece of the asteroid that had damaged our lab. It turns out there was gold in it. What a well-deserved reward!**

## Share with Others

Review: *When you read your story aloud, you can change your voice to better express your characters' feelings and emotions.* Form small groups and ask volunteers to read their stories aloud to their group. Have students make additional copies of their writings and add them to their Weekly Writing folders. Use the **Writing Rubric** to assess each student's original story.

### Writing Rubric

Score Point	Ideas	Organization	Voice	Word Choice	Fluency	Conventions	Presentation
4	The writing has a clear focus and a strong main idea. Details are accurate and relevant. The writer shows a deep understanding of the topic.	The writing has a clear structure that suits the writer's purpose. All content is relevant to the audience and logically organized.	The writing has a strong voice and tone. The writer uses language that is appropriate for the audience and purpose.	Appropriate words were chosen to convey the writer's message. Language used is appropriate for the audience and purpose.	All sentences are used and have appropriate punctuation. When read aloud, the writing flows smoothly and is easy to read.	The writing has only a few minor errors in spelling, punctuation, and grammar. Sentences are complete.	The text is presented in an orderly way. The writer's message is conveyed clearly. Visuals are appropriate and enhance the meaning.
3	The writing has a clear focus and a strong main idea. Details are accurate and relevant. The writer shows a deep understanding of the topic.	The writing has a clear structure that suits the writer's purpose. All content is relevant to the audience and logically organized.	The writing has a strong voice and tone. The writer uses language that is appropriate for the audience and purpose.	Appropriate words were chosen to convey the writer's message. Language used is appropriate for the audience and purpose.	All sentences are used and have appropriate punctuation. When read aloud, the writing flows smoothly and is easy to read.	The writing has only a few minor errors in spelling, punctuation, and grammar. Sentences are complete.	The text is presented in an orderly way. The writer's message is conveyed clearly. Visuals are appropriate and enhance the meaning.
2	The writing has a clear focus and a strong main idea. Details are accurate and relevant. The writer shows a deep understanding of the topic.	The writing has a clear structure that suits the writer's purpose. All content is relevant to the audience and logically organized.	The writing has a strong voice and tone. The writer uses language that is appropriate for the audience and purpose.	Appropriate words were chosen to convey the writer's message. Language used is appropriate for the audience and purpose.	All sentences are used and have appropriate punctuation. When read aloud, the writing flows smoothly and is easy to read.	The writing has only a few minor errors in spelling, punctuation, and grammar. Sentences are complete.	The text is presented in an orderly way. The writer's message is conveyed clearly. Visuals are appropriate and enhance the meaning.
1	The writing does not have a clear focus and a strong main idea. Details are not relevant. The writer shows a shallow understanding of the topic.	The writing has a weak structure that does not suit the writer's purpose. Content is not relevant to the audience and is not logically organized.	The writing has a weak voice and tone. The writer uses language that is not appropriate for the audience and purpose.	Appropriate words were not chosen to convey the writer's message. Language used is not appropriate for the audience and purpose.	Some sentences are not used and have errors in punctuation. When read aloud, the writing does not flow smoothly and is difficult to read.	The writing has many errors in spelling, punctuation, and grammar. Sentences are not complete.	The text is not presented in an orderly way. The writer's message is not conveyed clearly. Visuals are not appropriate and do not enhance the meaning.

# Week 3 Assessment & Reteaching

✓ = TESTED

## Assess

### OBJECTIVES

#### Reading

- ✓ Comprehend Plot
- ✓ Form Generalizations to Comprehend Literature

### ASSESSMENTS

**Reading Comprehension Test** (Unit 7, Week 3)

**The Rocket**

Ms. Vander taught history at Croft Middle School. She did more than just teach dates and names. She told stories that brought history to life. The lesson about the first landing on the moon by the Apollo 11 astronauts Buzz Aldrin and Neil Armstrong was especially interesting. Mrs. Vander ended class with her own memory of that event.

"As you now know," Mrs. Vander began, "the first moon landing was on July 20, 1969. In my hometown, it was a hot day. That night, the adults gathered around the television to watch the landing. My older brother Thad and I went out to the backyard. People sometimes said Thad was an accident waiting to happen. So I probably wasn't a good idea that Thad had built a rocket in honor of the event."

Mrs. Vander's students leaned forward, listening to every word. They were already drawn into the story.

"Thad proudly showed me his rocket. Then he lit the fuse and the two of us ran off into the bushes. We stood there waiting, but nothing happened. Thad was just about to see what might have gone wrong when we heard our names being called. We ran inside to watch the moon landing. As we stood before the television screen, we saw a flash of light outside. Then we heard the scream of a rocket. Thad's rocket had kicked off after all!"

Mrs. Vander paused for extra drama. The students sat on the edge of their seats. They were looking up her every word.

**A7.16**

**Reading Comprehension Test** (Unit 7, Week 3)

My brother looked at me and grinned. I wasn't sure which event he was happier about, the moon landing or the launch of his homemade rocket. As it turned out, only pieces of Thad's rocket were left. There was so much to celebrate that night, nothing could do us out excitement.

As if on cue, the bell rang. Mrs. Vander's students gathered their things. They left for their next class, their minds filled with thoughts of a historic moon landing and a homemade rocket.

What is the problem in Mrs. Vander's story?  
① It was hot on the night of July 20, 1969.  
② Thad's rocket didn't launch right away.  
③ The adults were inside watching television.  
④ People said Thad was an accident waiting to happen.

What is the turning point in the story?  
① Thad lit the fuse of his rocket.  
② Thad and his sister hid behind the bushes.  
③ They wanted to see what was going on with his rocket.  
④ Thad called the sister over a flash and heard the rocket scream.

Like Mrs. Vander's students, when most people have a good story they —  
① stay happy.  
② pay attention.  
③ share memories.  
④ want to celebrate.

People said Thad was an accident waiting to happen, and he had problems with his rocket. This suggests that —  
① things often go wrong for Thad.  
② Thad knew strange people in his town.  
③ the moon landing was really important to Thad.  
④ Thad wants to build rockets when he grows up.

**A7.17**

**Reading Strategy Assessment** (Unit 7)

Check the reading strategy the student used and ask the questions that follow about how the student used the strategy. Use the rubric to help you determine how well the student used the strategy. Circle the student's work.

Ask: **What do you do when you are confused?** **What are some parts of the text that confused you or were hard to follow?** **What do you do to understand better?** **What do you do to understand better?**

Plan and Monitor	Make Connections	Visualize
4 3 2 1	4 3 2 1	4 3 2 1

**SG7.30**

Reading Comprehension Test  
A7.16–A7.17

Reading Strategy Assessment  
SG7.30–SG7.31

#### Fluency

- ✓ Expression
- ✓ Accuracy and Rate

**Oral Reading Assessment** (Unit 7)

What would you think if you suddenly saw a new object in the night sky? Would you be afraid or would you want to learn more about it? People have always wondered about bright objects in the sky. In ancient times, people watched the sky carefully. They noticed that some lights appeared suddenly and that they looked like long tails. People didn't know what to think of these objects that didn't move regularly through the sky like the stars, the moon, and the planets.

Today, we understand more about these strange objects. We call them comets. They are huge flying "dirty snowballs" made of dust and ice. Most comets believe that comets are made up of icy material left over after the planets were formed.

The orbit of most comets in our solar system is very long and looped, and these comets can travel very fast through space when they are near the sun. That's why comets seem to appear suddenly. It can be many years from one encounter of a comet with the Earth to the next.

As a comet nears the sun, pieces of the comet break away or are vaporized and form a gas. The gas streams away from the sun, looking like a tail. Each comet actually has two tails: one tail made of gas and another made of dust. The tail made of dust is shorter and curves a little around the comet. The tail that is made of gas is straight and can stretch for millions of miles.

How will you feel the next time you see a new light in the night sky? If you see a tail on the light, it might be a comet. Then you can look up information about it. You might even see the same comet later in your lifetime, and the next time, you won't be so surprised.

**A7.1**

**Oral Reading Assessment** (Unit 7)

Code	Score	1	2	3	4
Accuracy					
Rate					
Expression					

**A7.2**

**Oral Reading Assessment** (Unit 7)

Code	Score	4	3	2	1
1					
2					
3					
4					

**A7.3**

Oral Reading Assessment  
A7.1–A7.3

Use these passages throughout Unit 7. Work with Above Level students this week.

#### Vocabulary and Spelling

- ✓ Use Domain-Specific Words
- ✓ Use Academic Words
- ✓ Spell Words with VCV, VCCV Patterns
- ✓ Use Commonly Misspelled Words Correctly

**Vocabulary Test** (Unit 7, Week 3)

Directions: Choose the answer that completes the sentence correctly.

This is an \_\_\_\_\_ of things.  
① amount  
② amount  
③ equipment  
④ advantage

This is a \_\_\_\_\_ of things.  
① craft  
② gear  
③ barrel  
④ compass

This globe shows the \_\_\_\_\_ of Earth.  
① competition  
② discovery  
③ masses  
④ ability

The space shuttle \_\_\_\_\_ off things.  
① launches  
② orbits  
③ tracks  
④ contains  
⑤ modifies

This \_\_\_\_\_ is the \_\_\_\_\_ of things.  
① launches  
② orbits  
③ tracks  
④ contains  
⑤ modifies

\_\_\_\_\_ is the use of science to solve problems.  
① Patency  
② Evidence  
③ Height  
④ Technology

The \_\_\_\_\_ of an object is the most \_\_\_\_\_.  
① Population  
② Navigation  
③ Maintenance  
④ Language

**A7.18**

**Vocabulary Test** (Unit 7, Week 3)

Directions: Choose the answer that completes the sentence correctly.

To \_\_\_\_\_ something is to stop it after a set amount of time.  
① locate  
② examine  
③ interrupt  
④ cease

\_\_\_\_\_ something that never changes is \_\_\_\_\_.  
① constant  
② coastal  
③ neutral  
④ water

\_\_\_\_\_ is the use of science to solve problems.  
① Patency  
② Evidence  
③ Height  
④ Technology

The \_\_\_\_\_ of an object is the most \_\_\_\_\_.  
① Population  
② Navigation  
③ Maintenance  
④ Language

**A7.19**

**Spelling Words**

Use these words and sentences in the weekly Spelling Pretest and Spelling Test.

1. cluster	It is that group, or cluster, of stars a constellation?
2. commander	She is in charge of the fight because she is the commander.
3. future	Scientists predict what space exploration will be like in the future.
4. goggles	Early aviators wore goggles to protect their eyes when they flew planes.
5. helium	Helium gas inside the balloon causes it to rise.
6. helmet	We cannot see the astronaut's face behind her space suit helmet.
7. lunar	I would like to be part of a lunar landing and walk on the moon.
8. massive	Some objects in space are small, but others are massive.
9. pilot	The pilot flew the plane through storm clouds.
10. platform	The astronaut stood on a wooden platform so the crowd could see her.
11. public	Is all the data about the flight public, or is some of the information secret?
12. seldom	I seldom read science fiction stories, but my friend reads them all the time.
13. signal	My brother whistled, and that was the signal to go outside and see the full moon.
14. tablet	I wrote notes about the rocket launch on a tablet.
15. vapor	The clouds around the moon look like a white vapor.

**A7.18**

Vocabulary Test  
A7.18–A7.19

Spelling Pretest/  
Spelling Test  
T453s

#### Grammar and Writing

- ✓ Use Relative Adverbs
- ✓ Use a Concluding Sentence

**Writing, Revising, and Editing Test** (Unit 7)

Directions: Read the paragraphs. Then answer the questions.

When I was a little boy, my grandmother and I gazed at the stars. We lived in a small country town. \_\_\_\_\_ the sky was nice and dark. "What's the name of that big red one, Grandma?" I would ask. "I didn't know the answer \_\_\_\_\_ she always knew, but she did."

"That's Antares," she might say.

Before Grandma died, she took me to the same observatory \_\_\_\_\_ she learned about the night sky. One night \_\_\_\_\_ it is clear, I look up at the stars and think of Grandma.

Choose the answer that goes in Blank 1.  
① why  
② when  
③ where

Choose the answer that goes in Blank 2.  
① why  
② when  
③ where

Choose the answer that goes in Blank 3.  
① why  
② when  
③ where

Choose the answer that goes in Blank 4.  
① why  
② when  
③ where

**A7.20**

**Writing, Revising, and Editing Test** (Unit 7)

Directions: Read the paragraphs. Then answer the questions.

Brian 68 ready, she had done her stretches, she had done her warm-up runs in her "practice" shoes. Now the start of the race was only a few minutes away, and it was time to put on her race shoes, the running shoes she wore only for actual races.

Brian opened her track bag and couldn't believe what she saw. In her hurry to get out of the house, she had grabbed her sister's running shoes instead! She started to panic, when she looked up and saw her mother getting out of the car in the parking lot.

Choose the answer that goes in Blank 1.  
① why  
② when  
③ where

Choose the answer that goes in Blank 2.  
① why  
② when  
③ where

**A7.21**

**Writing Rubric**

Code	Score	4	3	2	1
1					
2					
3					
4					

**A7.41**

Writing, Revising, and Editing Test  
A7.20–A7.21

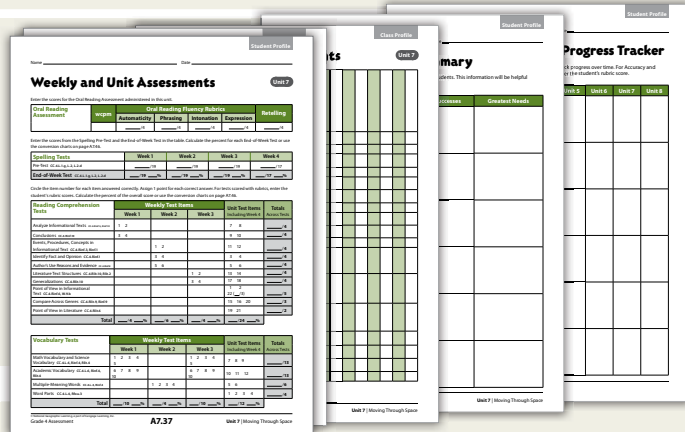
Writing Rubric  
A7.41



ExamView®

# Reteach and Practice

## REPORTS



### PRINT & ONLINE Report Forms

- Student Profile: Weekly and Unit Assessments** A7.37–A7.38
- Class Profile: Weekly and Unit Assessments** A7.39
- Student Profile: Strengths and Needs** A7.40
- Student Profile: Oral Reading Progress Tracker** A1.3

## RESOURCES AND ROUTINES

### Reading

#### RETEACH

**Plot:** Reteaching Master RT7.7

**Form Generalizations:** Reteaching Master RT7.8

#### ADDITIONAL PRACTICE

**Comprehension Coach** [NGReach.com](https://www.ngreach.com)

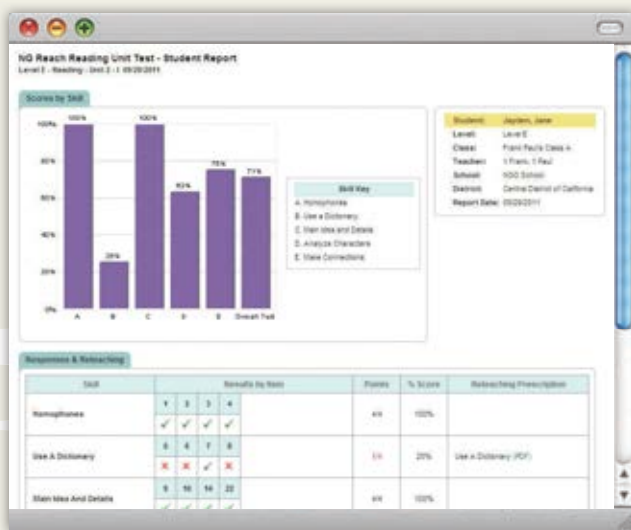
### Fluency

#### RETEACH

**Fluency Routines,** page BP33

#### ADDITIONAL PRACTICE

**Comprehension Coach** [NGReach.com](https://www.ngreach.com)



eAssessment™

### ONLINE ONLY Automated Reports

- Student Profile:** Weekly and Unit Tests
- Class Profile:** Weekly and Unit Tests
- Standards Summary Report**

### Vocabulary and Spelling

#### RETEACH

**Vocabulary Routine 6,** page BP40

**Spelling and Word Work Routine,** page BP52

#### ADDITIONAL PRACTICE

**Vocabulary Games** [NGReach.com](https://www.ngreach.com)

**Daily Spelling Practice,** pages T453s–T453t

### Grammar and Writing

#### RETEACH

**Adverbs:** Anthology Handbook, page 609

**Writing:** Reteaching Writing Routine, page BP51

**Writing Trait: Organization:** Reteaching Master RT7.9

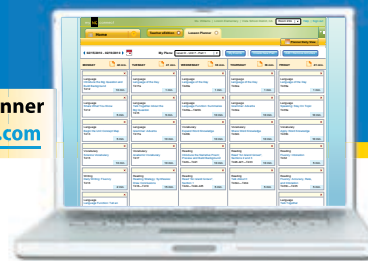
#### ADDITIONAL PRACTICE

**More Grammar Practice** PM7.23


**Daily Writing Skills Practice,** pages T453w–T453x

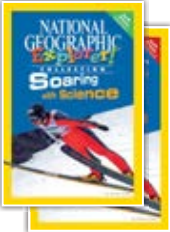
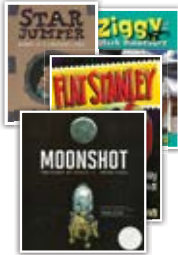
# Week 4 Planner

Online Lesson Planner  
NGReach.com



☑ = TESTED

		Day 1	Day 2
WHOLE GROUP TIME			
Anthology	<b>Speaking and Listening</b> 🕒 5–10 minutes	<b>Listen and Comprehend</b>	<b>Read and Comprehend</b>
	<b>Language and Vocabulary</b> 🕒 20 minutes	<b>Academic Talk</b> CC.4.SL.1.d Discuss the Big Question T477q	<b>Academic Talk</b> CC.4.Rfou.4.a Preview and Predict T478c
	<b>Reading</b> 🕒 20–40 minutes	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; CC.4.Rfou.3.a; ☑ VCCV, VCCCV Patterns T477k CC.4.L.1.g; CC.4.L.2; CC.4.L.2.d; CC.4.L.2.g	<b>Daily Spelling and Word Work</b> CC.4.Rfou.3; ☑ Practice T477k CC.4.Rfou.3.a; CC.4.L.2
	<b>Writing</b> 🕒 15–45 minutes	<b>Daily Grammar</b> CC.4.L.1 ☑ Prepositions T477m	<b>Daily Grammar</b> CC.4.L.1 ☑ More Prepositions T477m
	<b>Vocabulary Strategy</b> CC.4.Rfou.3; CC.4.Rfou.3.a; ☑ Word Parts T477q–T477r CC.4.L.4	<b>Vocabulary Strategy</b> CC.4.Rfou.3; CC.4.Rfou.3.a; ☑ More Word Parts T478c CC.4.L.4	
	<b>Reading</b> CC.4.Rinf.9 Read Aloud: Historical Nonfiction T478a	<b>Reading</b> CC.4.Rfou.4.a Read a Biography	
	<b>Comprehension</b> CC.4.Rlit.6 ☑ Compare Points of View T478a	<b>Comprehension</b> CC.4.Rinf.1 ☑ Form Generalizations ☑ Points of View CC.4.Rinf.1	
	<b>Fluency</b> CC.4.Rfou.4 ☑ Model Phrasing T478a	<b>Fluency</b> CC.4.Rfou.4 ☑ Practice Phrasing, Accuracy, and Rate T479	
	<b>Power Writing</b> T477q CC.4.W.9.b <b>Daily Writing Skills</b> CC.4.W.3 ☑ Maintain Point of View T477o	<b>Power Writing</b> T478c CC.4.W.9.b <b>Daily Writing Skills</b> CC.4.W.3 ☑ Maintain Point of View T477o	
	<b>Writing</b> CC.4.W.9.b Write with a Point of View T478b	<b>Writing</b> CC.4.W.9 Write a Response T481	
	<b>Writing Project: Personal Narrative</b> CC.4.W.3; CC.4.W.5; Study a Model T484 CC.4.W.10	<b>Writing Project: Personal Narrative</b> CC.4.W.3; CC.4.W.5; Prewrite T484 CC.4.W.10	

SMALL GROUP READING TIME		Read Science Articles	Read Nonfiction Books
Fiction & Nonfiction	🕒 20 minutes	<b>Vocabulary</b> CC.4.L.6 Learn Science Vocabulary SG23	<b>Vocabulary</b> CC.4.L.6 Learn Story Words SG24–SG25
		<b>Reading</b> CC.4.Rinf.3 Explain Ideas SG22 Build CC.4.Rinf.10 Comprehension SG23	<b>Reading</b> CC.4.Rlit.10 Introduce SG24–SG25 Read and Integrate Ideas SG26–SG27 ☑ Form Generalizations CC.4.Rlit.10 SG26–SG27 Describe Characters and Events CC.4.Rlit.2; CC.4.Rlit.3 SG26–SG27
			

LEARNING STATION TIME			
Learning Station	🕒 20 minutes		
		<b>Speaking and Listening</b> T477i CC.4.SL.1; CC.4.SL.2 <b>Language and Vocabulary</b> T477i CC.4.L.6 <b>Writing</b> T477i CC.4.L.2; CC.4.W.3; CC.4.W.3.b <b>Cross-Curricular</b> T477j CC.4.W.4; CC.4.W.7; CC.4.SL.5 <b>Reading and Intervention</b> CC.4.Rinf.3; CC.4.Rinf.10; T477j, SG68 CC.4.Rfou.3; CC.4.Rfou.3.a; CC.4.Rfou.4.c	

**BIG Question** What does it take to explore space?

Day 3

Read and Comprehend

**Academic Talk** CC.4.SL.4  
Talk Together T482

**Daily Spelling and Word Work** CC.4.Rfou.3; CC.4.Rfou.3.a;  
Practice T477I CC.4.L.1.g; CC.4.L.2; CC.4.L.2.d

**Daily Grammar** CC.4.L.1  
Prepositional Phrases T477n

**Vocabulary Review** CC.4.L.4; CC.4.L.6  
Science and Academic Vocabulary T481a

**Comprehension** CC.4.Rlit.1; CC.4.Rlit.9; CC.4.Rinf.1; CC.4.Rinf.9; CC.4.Rfou.4.a  
Compare Fiction and Biography T481a



**Fluency** CC.4.Rfou.4  
Practice Phrasing T482

**Power Writing** T481a  
**Daily Writing Skills** CC.4.W.3  
Maintain Point of View T477o

**Writing** CC.4.L.1; CC.4.L.3  
Write to Reinforce Grammar T483

**Writing Project: Personal Narrative** CC.4.W.3; CC.4.W.5; CC.4.W.10  
Get Organized/Draft T484–T485

Day 4

Read and Comprehend

**Academic Talk** CC.4.Rinf.6  
Discuss Generalizations T483d

**Daily Spelling and Word Work** CC.4.L.2.d  
Practice T477I

**Daily Grammar** CC.4.W.5; CC.4.L.1; CC.4.L.3  
Grammar and Writing T477n

**Vocabulary Practice** CC.4.Rfou.3; CC.4.Rfou.3.a; CC.4.L.4  
More Word Parts T483c

**Reading** CC.4.Rinf.6  
Read Firsthand and Secondhand Accounts T483–T483b



**Comprehension** CC.4.Rinf.6  
Compare and Contrast Accounts T483a

**Power Writing** T483c  
**Daily Writing Skills** CC.4.W.9  
Maintain Point of View T477o

**Writing** CC.4.W.9  
Write About Accounts T483d

**Writing Project: Personal Narrative** CC.4.L.1; CC.4.L.1.e; CC.4.L.3  
Revise; Edit and Proofread T486

Day 5

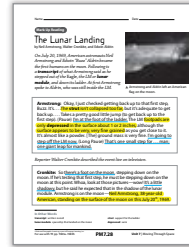
Review and Apply

**Academic Talk** CC.4.SL.1.a  
Relate Readings to the Big Question T483h

**Daily Grammar** CC.4.L.1  
Review and Assess T477n

**Vocabulary Practice** CC.4.Rfou.3; CC.4.Rfou.3.a; CC.4.L.4  
Word Parts T483e

**Comprehension** CC.4.Rinf.6  
Compare and Contrast Accounts T483g



**Power Writing** T483e  
**Daily Writing Skills** CC.4.W.9.b  
Maintain Point of View T477o

**Writing** CC.4.W.9.b  
Write About Point of View T483g

**Writing Project: Personal Narrative** CC.4.W.3; CC.4.W.5; CC.4.W.10  
Publish T487

Read Nonfiction Books

**Vocabulary** CC.4.L.6  
Learn Story Words SG24–SG25

**Reading**  
Introduce SG24–SG25  
Read and Integrate Ideas SG26–SG27 CC.4.Rlit.10  
Form Generalizations SG26–SG27 CC.4.Rlit.10  
Describe Characters and Events SG26–SG27 CC.4.Rlit.2; CC.4.Rlit.3



Read Nonfiction Books

**Vocabulary** CC.4.L.6  
Learn Story Words SG24–SG25

**Reading**  
Introduce SG24–SG25  
Read and Integrate Ideas SG26–SG27 CC.4.Rlit.10  
Form Generalizations SG26–SG27 CC.4.Rlit.10  
Describe Characters and Events SG26–SG27 CC.4.Rlit.2; CC.4.Rlit.3



Read Nonfiction Books

**Vocabulary** CC.4.L.6  
Expand Vocabulary Through Wide Reading SG24–SG27

**Reading** CC.4.Rlit.10  
Connect Across Texts SG27

**Writing** CC.4.W.10  
Choose a Writing Option SG26–SG27



ASSESSMENT & RETEACHING

**Assessment and Reteaching** T478a–T478b

Reading Comprehension Unit Test A7.22–A7.29 CC.4.Rinf.1; CC.4.Rinf.2

Reading Strategy Assessment SG57–SG58 CC.4.Rlit.10

Oral Reading Assessment A7.1–A7.3 CC.4.Rfou.4.a

Vocabulary Unit Test A7.30–A7.32 CC.4.L.4.b; CC.4.L.6

Spelling Test: VCCV, VCCCV Patterns T477k CC.4.Rfou.3; CC.4.Rfou.3.a; CC.4.L.1.g; CC.4.L.2; CC.4.L.2.d; CC.4.L.2.g

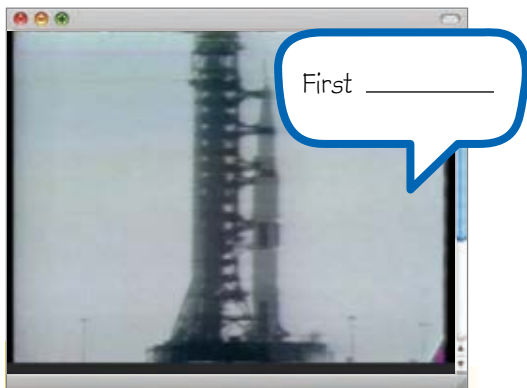
Writing, Revising, and Editing Unit Test A7.33–A7.36 CC.4.W.10; CC.4.L.1; CC.4.L.3

Reteaching Masters RT7.10–RT7.13

# Week 4 Learning Stations

## Speaking and Listening

### Option 1: Watch Neil Armstrong on the Moon



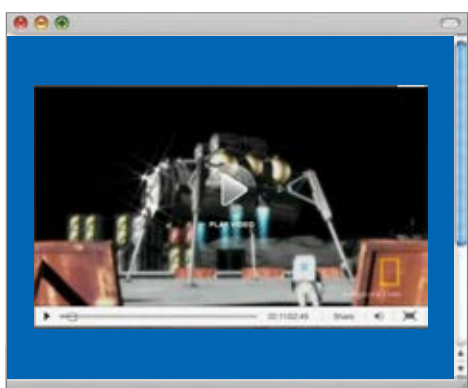
[NGReach.com](#) Student Resources

Have students retell the events that led to Armstrong's walk. To view the video, have students go to Resources > Unit 7 > Learning Stations > Week 4 > Man on the Moon.

Have one partner retell the events using his or her own words. Have the other partner list the events as told. Then have partners rewatch the video and reverse roles.

Paraphrase Text, Visual, and Oral Information CC.4.SL.2

### Option 2: What's in Moon's Future?



[NGReach.com](#) Student Resources

Have student's view and discuss a video about the future of moon research. To view the video, have students go to Resources > Unit 7 > Learning Stations > Week 4 > Moon Colony.

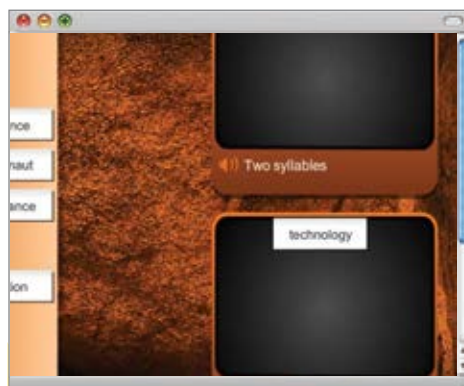
Discuss Topics, Building on Others' Ideas and Expressing Ideas Clearly CC.4.SL.1

## Language and Vocabulary

### Key Words

astronaut · capacity · clarify · constant  
generalization · launch · limit · orbit · planet  
resistance · rotation · technology

### Option 1: Vocabulary Games



[NGReach.com](#) Online Vocabulary Games

Acquire and Use Conversational, General Academic, and Domain-Specific Words CC.4.L.6

### Option 2: My Vocabulary Notebook



[NGReach.com](#) My Vocabulary Notebook

Have students expand their word knowledge.

- Under Add More Information > Use This Word > Write a Sentence, have students use the Key Words in prepositional phrases.
- Under Add More Information > Use This Word > Write More, have students use the Key Words to write first-person paragraphs.

Acquire and Use Conversational, General Academic and Domain-Specific Words CC.4.L.6

## Writing

### Option 1: What Did You Say?



### PROGRAM RESOURCES

Language and Literacy Teamwork Activities: Card 46

Digital Library: Language Builder Picture Cards E86–E89

Teacher's Guide on [NGReach.com](#) Student Resources Directory

Use Dialogue CC.4.W.3.b  
Demonstrate Command of Punctuation CC.4.L.2

### Option 2: Write About Your Moon Landing

If I were the first human to land on the moon, I would say...

Display the writing prompt:

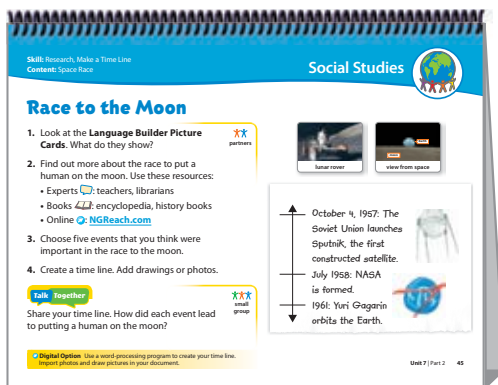
Imagine that you were the first human to walk on the moon. What would you do? What would you say? Describe what would happen as you set foot on the moon.

Write Narratives CC.4.W.3  
Use Dialogue CC.4.W.3.b



## Cross-Curricular

### Option 1: Race to the Moon



**Skill:** Research; Make a Time Line  
**Content:** Space Race

**Social Studies**

### Race to the Moon

- Look at the **Language Builder Picture Cards**. What do they show?
  - Experts: teachers, librarians
  - Books: encyclopedia, history books
  - Online: [NGReach.com](http://NGReach.com)
- Find out more about the race to put a human on the moon. Use these resources:
  - October 4, 1957: The Soviet Union launches SputnikK, the first constructed satellite.
  - July 1958: NASA is formed.
  - 1961: Yuri Gagarin orbits the Earth.
- Choose five events that you think were important in the race to the moon.
- Create a time line. Add drawings or photos.

**Talk Together**  
Share your time line. How did each event lead to putting a human on the moon?

**Digital Option** Use a word processing program to create your time line. Insert photos and draw pictures in your document.

Unit 7 | Part 2 | 45

### PROGRAM RESOURCES & MATERIALS

Cross-Curricular Teamwork Activities: Card 45

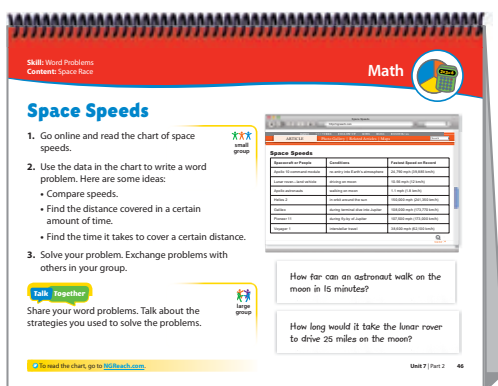
Digital Library: Language Builder Picture Cards E90–E91

Teacher's Guide on [NGReach.com](http://NGReach.com)

encyclopedia • books about space • colored markers

Conduct Research CC.4.W.7  
Add Visual Displays to Presentations CC.4.SL.5

### Option 2: Space Speeds



**Skill:** Word Problems  
**Content:** Space Race

**Math**

### Space Speeds

- Go online and read the chart of space speeds.
- Use the data in the chart to write a word problem. Here are some ideas:
  - Compare speeds.
  - Find the distance covered in a certain amount of time.
  - Find the time it takes to cover a certain distance.
- Solve your problem. Exchange problems with others in your group.

**Talk Together**  
Share your word problems. Talk about the strategies you used to solve the problems.

**Space Speeds**

Spacecraft	Speed	Time	Distance
Apollo 11	25,000 miles per hour	3 days	750,000 miles
Sputnik 1	17,700 miles per hour	90 minutes	16,650 miles
Yuri Gagarin	17,700 miles per hour	1 hour 48 minutes	16,650 miles
Mercury 8	17,700 miles per hour	15.5 hours	305,250 miles
Vanguard TV-6	17,700 miles per hour	15.5 hours	305,250 miles
Explorer 6	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 7	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 9	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 10	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 11	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 12	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 13	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 14	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 15	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 16	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 17	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 18	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 19	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 20	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 21	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 22	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 23	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 24	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 25	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 26	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 27	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 28	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 29	17,700 miles per hour	15.5 hours	305,250 miles
Mercury 30	17,700 miles per hour	15.5 hours	305,250 miles

How far can an astronaut walk on the moon in 15 minutes?  
How long would it take the lunar rover to drive 25 miles on the moon?

Unit 7 | Part 2 | 46

### PROGRAM RESOURCES

Cross-Curricular Teamwork Activities: Card 46

Teacher's Guide on [NGReach.com](http://NGReach.com)

Student Resources Directory

Use Appropriate Development and Organization CC.4.W.4

## Reading

### Option 1: Read Unusual Facts About the Moon Landing



**NATIONAL GEOGRAPHIC CHANNEL**

### MAN AND THE MOON

#### 15 Things You Didn't Know About the Lunar Landing

Space exploration isn't just about exploring the unknown. It's about pushing the boundaries of what we know and what we can do. The moon landing was a historic moment that changed the way we see the world and ourselves. Here are 15 things you didn't know about the lunar landing:

- The moon is the only natural satellite of Earth.
- The moon is the only celestial body that we can see with the naked eye.
- The moon is the only celestial body that we can see from Earth.
- The moon is the only celestial body that we can see from Earth.
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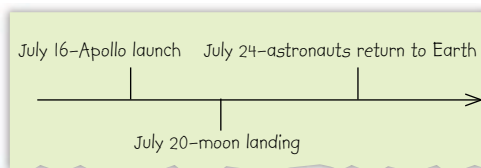
Unit 7 | Part 2 | 45

[NGReach.com](http://NGReach.com) Student Resources

Have students read a list of unusual facts about the 1969 moon landing. To view the facts, have students go to Resources > Unit 7 > Learning Stations > Week 4 > Unusual Facts About the First Moon Landing. Have students identify the most interesting fact and restate the fact as an exclamation.

Explain Events CC.4.Rinf.3  
Read and Comprehend Informational Texts CC.4.Rinf.10  
Paraphrase Text, Visual, and Oral Information CC.4.SL.2

### Option 2: Read Other Stories About the Moon Landing



July 16–Apollo launch    July 24–astronauts return to Earth

July 20–moon landing

### MATERIALS

books about the moon landing: *T-Minus* by Jim Ottawari, *One Small Step* by Jerry Stone, and *Mission to the Moon* by Alan Dyer

Have students read books they haven't read before about the first moon landing, create time lines to show key events of the landing, and then discuss their time lines with a partner.

Explain Events CC.4.Rinf.3  
Read and Comprehend Informational Texts CC.4.Rinf.10

## Intervention

### Option 1: Phonics Games



**Games | Reach Into Phonics**

sound icon    sand    wich

[NGReach.com](http://NGReach.com) Online Phonics Games

Apply Phonics and Word Analysis Skills CC.4.Rfou.3  
Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words CC.4.Rfou.3.a

For *Reteaching Masters*, see pages RT7.10–RT7.13.

### Additional Resources

#### Reach into Phonics



Lesson 110

Use Context to Confirm or Self-Correct Word Recognition and Understanding CC.4.Rfou.4.c

#### ESL Kit



ESL Teacher's Edition pages T478a–T489

# Week 4 Daily Spelling & Word Work

## OBJECTIVES

**Thematic Connection: Exploring Space**

- ✔ Spell Multisyllabic Words with VCCV, VCCCV Patterns
- ✔ Use Commonly Misspelled Words Correctly

## SUGGESTED PACING

DAY 1	Pretest
DAY 2–4	Daily Practice Options
DAY 5	Test

### Spelling Pretest

Day 1



### Spelling Test

Day 5



## Spelling Words

Use these words and sentences for the weekly Spelling Pretest and Spelling Test.

### Multisyllabic Words with VCCV, VCCCV Patterns

1. altitude	What is the highest <b>altitude</b> above Earth that the rocket can reach?
2. astronomy	Since you are interested in stars and planets, you should study <b>astronomy</b> .
3. calculate	How do scientists figure out, or <b>calculate</b> , the distance between a star and Earth?
4. commitment	My friend made a <b>commitment</b> to do a science project with me, but he didn't keep his promise.
5. constellation	Is that pattern of bright stars the <b>constellation</b> Orion?
6. constitute	Some workers <b>constitute</b> the crew on the ground, and others make up the crew in the spacecraft.
7. emblem	The Space Club badge looks like our school <b>emblem</b> .
8. mechanic	The <b>mechanic</b> repaired a broken part on the shuttle.
9. packet	The astronaut opened a <b>packet</b> , or little bag, of food.
10. pursuit	The chase is really exciting because a space monster is in <b>pursuit</b> of the spaceship.
11. restrain	During the moon landing, did you scream and shout with excitement, or did you <b>restrain</b> yourself?
12. sensation	The feeling, or <b>sensation</b> , of being on the moon must be amazing.
13. tinkering	The rocket is finished, so we can stop <b>tinkering</b> with it and just leave it alone.
14. turbulent	The launch was cancelled because of violent, <b>turbulent</b> weather.
15. vibration	When the rocket blasted off, I felt a buzzing <b>vibration</b> .

### Watch-Out Words

16. shone	The moon <b>shone</b> like a gleaming pearl.
17. shown	I have <b>shown</b> my photo to everyone I know, and they all noticed my smile!

## VCCV Pattern

Day 2



Option 1

## MATERIALS

small pieces of poster board • scissors

## Teach

Display the word *altitude*, circle *it*, and pronounce the word. Underline the letters *a-l-t-i*, circle the two consonants, and explain: *When two consonants come between two vowels, you usually divide the word between the two consonants*. Display these exceptions: *me|chanic*, *pack|et*, *vi|bration*. Circle the blend or digraph in each word and explain that blends and digraphs do not get divided.

## Prepare

- Have partners cut a small picture frame out of poster board. The opening should be about 1 ¼" x ¾", or the proper size to show four letters in a word on one line.
- Have partners collaborate to print a list with the words *altitude*, *calculate*, *commitment*, *pursuit*, *sensation*, *tinkering*, and *turbulent*, sizing and spacing the letters so that four letters at a time will appear in the frame.

## Play a Game

Have students take turns framing the VCCV letters in each word, showing where each word gets divided.

- Then have one partner take the list and read aloud the first four words for the other partner to spell.
- Have partners switch roles and continue with the last three words.
- Students get one point for every word spelled correctly.

Apply Phonics and Word Analysis Skills

CC.4.Rfou.3

Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words

CC.4.Rfou.3.a

## Word Sort

Day 2



Option 2

## Prepare

Have each partner divide a paper into four wide columns, with the headings 1, 2, 3, and 4.

## Play a Game

- Have Partner 1 read the first eight spelling words aloud.
- Have Partner 2 determine the number of syllables in each word and write the word in the corresponding column. Students score one point for the correct number of syllables and one point for giving the correct spelling.
- Have partners switch roles for the next nine words. At the end of the game, the player with more points wins.

Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words

CC.4.Rfou.3.a

Spell Grade-Appropriate Words

CC.4.L.2.d



VCCCV Pattern Day 3 Option 1

**MATERIALS**  
index cards, 4 per pair of students • highlighters • scissors • tape

**Teach**  
Display *em|blem*, underline *mb|*, and say the word. Underline the three consonants and circle the blend *bl*. Explain: *When three consonants come between two vowels, you usually divide the word before or after a blend or digraph.*

Display this exception: *re|strain*. Point out the *re* and *str*, explaining that prefixes do not get divided.

- Prepare**
- Have pairs make separate word cards for *astronomy*, *constellation*, *constitute*, and *emblem*. Have them highlight the blend *tr*, *st*, or *bl* in each word.
  - Have pairs cut each word in two, before the blend, and scatter the cards face up.

- Play a Game**
- Have pairs take turns matching word parts to recreate each set of words. Have them read the words together.
  - Then tell students to tape the cards back together and turn them over.
  - Have pairs take turns turning over a card and reading it aloud for the other to spell and use in a sentence.



Apply Phonics and Word Analysis Skills CC.4.Rfou.3  
Use Letter-Sound Correspondences, Syllabication Patterns, and Morphology to Read Multisyllabic Words CC.4.Rfou.3.a

Poetry Day 3 Option 2

**MATERIALS**  
print or online dictionaries

**Write a Poem**  
Have small groups create a silly or serious poem using the Watch-Out Words and as many other spelling words as possible.

To win the astronomy prize—  
What a great sensation!  
When we were shown our ribbon,  
Our eyes shone like a constellation!

After writing their poems, have students use a dictionary to see that they have used each Watch-Out word correctly.

Use Frequently Confused Words CC.4.L.1.g  
Demonstrate Command of Spelling CC.4.L.2  
Consult References CC.4.L.2.d

Trace Words Day 4 Option 1

**MATERIALS**  
tracing paper

**Prepare**  
Have students write each spelling word, and then use tracing paper to draw an outline around each word.

- Practice**
- Tell partners to exchange tracing papers.
  - Have students write the correct word in each outline.

Spell Grade-Appropriate Words CC.4.L.2.d

Oh, No! Day 4 Option 2

**MATERIALS**  
index cards, 18 per pair of students • timer

**Prepare**  
Have pairs of students collaborate to write each spelling word on a separate card and “Oh, no!” on the remaining card.

- Play a Game**
- Have partners work with another pair, shuffling all the cards and placing them face down in a pile.
  - Have players take turns selecting a card and reading it to the player on his or her right. That player spells the word. If it is correct, the speller keeps the card. If not, it goes back in the pile. If a student draws “Oh, no!”, all of his or her cards go back in the pile.
  - When time is called, the player with the most cards wins.

Spell Grade-Appropriate Words CC.4.L.2.d

## OBJECTIVES

**Thematic Connection: Exploring Space**

- Grammar: Use Prepositions
- Use Prepositional Phrases

## COMMON CORE STANDARDS

- |                                |          |
|--------------------------------|----------|
| Edit Writing                   | CC.4.W.5 |
| Demonstrate Command of Grammar | CC.4.L.1 |
| Use Knowledge of Conventions   | CC.4.L.3 |

## Day 1

### PROGRAM RESOURCES

Prepositions: eVisual 7.30  
Game: Practice Master PM7.24

### MATERIALS

coins • small paper bags

## Teach the Rules

Use the suggestion on page T478b to introduce prepositions. Then display eVisual 7.30. Explain that prepositions link a noun or pronoun to other words in a sentence.

### Prepositions

- Some prepositions tell **location**—where something is.
  - A space vehicle landed **on** the moon.
  - The shuttle circled **above** Earth.
- Some prepositions tell **time**—when something happens.
  - After** three days, the shuttle returned.

[NGReach.com](http://NGReach.com) Prepositions: eVisual 7.30

Display prepositions of location: *above, over, under, below, beneath, beside, next to, by, near, in front of, behind, in back of, between, in, out, inside, outside, on, off.*

Display prepositions of time: *before, during, after, in, on, at, from, to.*

## Play a Game

Arrange groups of three or four. Distribute Practice Master PM7.24 and coins.

## Differentiate

### SN Special Needs

**ISSUE** Students are confused by verbal descriptions of prepositions that show location.

**STRATEGY** Distribute paper bags. Have partners take turns demonstrating each preposition aloud using this sentence frame: My pencil is \_\_\_\_\_ the bag.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar Game**  
**Preposition Clues**

**Directions:**

- Player 1 tosses a coin onto the set of squares.
- If the preposition the coin lands on tells a location, Player 1 uses the preposition in a sentence describing the location of an object in the classroom. ("This object is beside the teacher's desk.")
- If the preposition describes when something happens, Player 1 uses it to describe an event.
- Teammates guess what the object or event is. Guessers can use other prepositions to ask more questions. ("Is it on the floor?" "Is it before lunch?")
- The player who guesses correctly tosses the next coin, and play continues until everyone has had three turns.

above	during	inside
under	from	before
after	behind	outside
next to	between	near
beside	from _____ to _____	over

For use with TE 2a, 2c, 2d **PM7.24** Unit 7 | Moving Through Space

[NGReach.com](http://NGReach.com) Practice Master PM7.24

## Day 2

### PROGRAM RESOURCES

More Prepositions: eVisual 7.33  
Game: Practice Master PM7.25

### MATERIALS

timer

## Teach the Rules

Use the suggestion on page T481 to introduce more prepositions. Display and read aloud eVisual 7.33.

### More Prepositions

- Some prepositions show **direction**—where something is going: *up, down, through, across, around, into*
  - The comet whizzed **across** the sky.
- Some prepositions have **many uses**: *about, against, along, among, at, except, for, from, of, to, with, without*
  - I studied the space race **in** school.
  - We saw the launch **in** July.

[NGReach.com](http://NGReach.com) More Prepositions: eVisual 7.33

## Play a Game

Before distributing the Practice Master, tell students: *On a separate sheet of paper, list as many prepositions as you can in two minutes. Score a point for each one you list.* Give students two minutes, then distribute Practice Master PM7.25. Read aloud the directions before students start.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar Game**  
**Sort Prepositions**

**Directions:**

- Write the prepositions from your list in the appropriate column below. You will have two minutes to sort all of your prepositions. Remember: Some prepositions can go in more than one column.
- Check your chart with a partner. Assign yourself one point for each preposition you sorted correctly.
- Add all your points and compare your score with some of your classmates' scores.

Location	Time	Direction	Other

For use with TE 2a, 2c, 2d **PM7.25** Unit 7 | Moving Through Space

[NGReach.com](http://NGReach.com) Practice Master PM7.25

## Differentiate

### EL English Learners

**ISSUE** Spanish prepositions may not correspond to those in English.

**STRATEGY** Guide students to correct their preposition errors and create another sentence using the same preposition correctly.



### Day 3

#### PROGRAM RESOURCES

Prepositional Phrases: eVisual 7.35

#### Teach the Rules

Use Anthology page 483 to teach prepositional phrases. Then reinforce with eVisual 7.35.

#### Prepositional Phrases

- A **phrase** is a group of words. It may have a subject or a verb, but it does not have both. **After three days**, the astronauts were **beyond the moon**.
- A **prepositional phrase** begins with a **preposition** and ends with a **noun or pronoun**. A bright star is **near the moon**. It shines down **on us**.

NGReach.com Prepositional Phrases: eVisual 7.35

#### Play a Game

Have groups create a story with prepositional phrases. Have students sit in a circle and choose a recorder. Explain:

- Player 1 says a sentence to start a story about a space trip.
- Player 2 adds a prepositional phrase to the sentence. The recorder keeps track and reads back the sentence as needed.
- Players add prepositional phrases until a player can't add more.

#### Differentiate

##### BL Below Level

**ISSUE** Using adverbs instead of prepositions in prepositional phrases.

**STRATEGY** Model, using hand gestures: *A prepositional phrase needs a noun or pronoun. My hand is above...what? It is above my head.*

*The answer to "what?" is the noun or pronoun.* Have students choose a preposition of location and of direction and write prepositional phrases, answering the question "what?" for each one.

### Day 4

#### PROGRAM RESOURCES

Grammar and Writing:  
Practice Master PM7.30

#### Grammar and Writing

Distribute **Practice Master PM7.30**. Have students use editing and proofreading marks to correct errors with prepositions and prepositional phrases.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Grammar and Writing**

**Edit and Proofread**

Choose the Editing and Proofreading Marks you need to correct the passage. Look for correct usage of:

- prepositions
- prepositional phrases

Editing and Proofreading Marks	
^	Add.
↖	Take out.
↔	Move to here.
,	Add comma.
⊙	Add period.

Darkness looms around us. Not a speck of light creeps into the huge room. We are a planetarium, and the show is starting!

A professor beside the university walks in front of us. "You are about to travel through the universe," he says outside a deep voice. "Is everyone ready?" Suddenly images of stars appear on a screen above our heads. We stare in amazement from the stary dome. It is like looking the night sky, only a thousand times better.

Mysterious music swirls us. It fades, and the professor begins speaking again. He tells us the images. Then we zoom close to a star. It's like really being of space! It will be hard to return Earth after traveling through.

For use with TE, p. T477n. PM7.30 Unit 7 | Moving Through Space

NGReach.com Practice Master PM7.30

### Day 5

#### PROGRAM RESOURCES

Writing, Revising, and Editing Unit Test:  
Assessment Masters A7.33–A7.36

#### Review and Assess

Have partners add prepositional phrases, even silly ones, to the blanks in the sentences below. Have them write *L*, *T*, *D*, or *O* next to each prepositional phrase to tell whether it shows location, time, direction, or is used for some other purpose.

- We rode our bikes \_\_\_\_\_.
- \_\_\_\_\_ we had a party. \_\_\_\_\_
- The game \_\_\_\_\_ was exciting. \_\_\_\_\_
- The kids ran \_\_\_\_\_.

Administer the **Writing, Revising, and Editing Unit Test**.

# Week 4 Daily Writing Skills

## OBJECTIVE

**Thematic Connection: Exploring Space**

 **Maintain Point of View**

## COMMON CORE STANDARDS

Write Narratives

CC.4.W.3

### Introduce Point of View

Day 1



## PROGRAM RESOURCES

**Point of View Passage #1: eVisual 7.31**

## Teach the Skill

Review: *Point of view is the “voice” in which a story is told. If the narrator is part of the action, the first-person point of view is used. If the narrator is not part of the action of the narrative, the third-person point of view is used.*

Explain that when writing a personal narrative, a writer uses first-person point of view to describe his or her own experiences. However, the writer may also need to use the third-person point of view. The writer must use the third-person point of view to describe the actions, words, and thoughts of other people.

Display **eVisual 7.31** and have a volunteer read it aloud.



### Point of View Passage #1

For our presentation, Risa and I did research about the Hubble telescope. We found out when the Hubble was sent into space. We also learned about the discoveries scientists have made by studying the telescope’s pictures. Risa wanted to show some of the pictures during the presentation. She wrote captions to go along with the pictures she liked best.

 **Point of View**  
Passage #1: eVisual 7.31



**INTERACTIVE WHITEBOARD TIP:** Underline the pronouns and number the sentences.

Help students identify first- and third-person point of view in the passage by asking the following questions:

- *Which sentences describe the actions of the narrator?* (1, 2, and 3)
- *Which pronouns do these sentences use?* (*I* and *we*)
- *Which sentences describe the actions of someone other than the narrator?* (4 and 5)
- *How can you tell?* (They don’t contain the pronouns *I* and *we*. They only describe Risa’s actions.)

Explain that it is important to maintain the correct “voice,” or point of view, in each sentence of a narrative. Explain that this is especially important when the point of view changes within a passage, as it often does in a personal narrative.

### Identify Point of View

Day 2



Option 1

## Introduce

Remind students that two points of view are often used in a narrative. Tell them that occasionally a compound sentence may be written using both points of view.

## Practice

Arrange students in pairs and have them reread **Anthology** pages 462–463 of “The Moon Over Star.” Tell students to identify which sentences (or parts of sentences) are written in the first-person point of view and which are written in the third-person point of view.

Then have partners reread the text aloud. Tell one student to read the sentences (or parts of sentences) that use the first-person point of view. Have the other student read the sentences that use the third-person point of view.

Then have partners discuss why the writer switched back and forth.

### Switch Points of View

Day 2



Option 2

## Introduce

Arrange students in pairs and tell them to think about the character of Gramps in “The Moon Over Star.”

## Practice

Have each pair of students work together to write Gramps’s personal narrative about the day of the moon landing. Remind them to use both first- and third-person points of view, depending on whose thoughts or actions are being described.

When students have finished their personal narratives, have them exchange papers with another pair of students and point out which point of view is used in each sentence and why.

Tell students to point out any incorrect switches in point of view.

*Most of the family was so happy when the astronauts landed on the moon, but I didn’t feel very excited.*



## SUGGESTED PACING

DAY 1 Teach the Skill  
 DAY 2–4 Daily Practice Options  
 DAY 5 Review and Assess

### Correct the Points of View Day 3 Option 1

#### PROGRAM RESOURCES

Point of View Passage #2: eVisual 7.36

### Introduce

Remind students that the point of view should not change in ways that would be confusing to the reader. Briefly review first and third person.

Arrange students in small groups and display **eVisual 7.36**.



#### Point of View Passage #2

What a journey! So, there I was, Dina by name, on my way home from Moon Camp. Cousin Elio had been there with me, so he came home on the same camp space ship. The space ship was crowded, and we became cranky. I said, "Elio, move over, you're squashing the snacks." Suddenly, their juice packs burst open and juice started floating all around the cabin! The campers were covered with sticky purple liquid. Dina thought to herself, "That's the last time I sit with Cousin Elio!"

 [NGReach.com](#) Point of View Passage #2: eVisual 7.36



**INTERACTIVE WHITEBOARD TIP:** Underline the name of the narrator, Dina.

### Practice

Have students read the passage together, identify the narrator (Dina), and find the sentences that do not correctly reflect Dina's first-person point of view. (the last three)

After students have identified the incorrect sentences, have them rewrite that part of the passage in the correct point of view. When they are finished, have them read the story together and discuss why it makes more sense.

### Write a Personal Narrative Day 3 Option 2

#### PROGRAM RESOURCES

Digital Library: Language Builder Picture Cards E89–E90

### Practice

Have small groups of students choose **Language Builder Picture Card E89** or **E90**. Tell them to write a personal narrative in the voice of the person shown. Encourage them to make use of both points of view as they tell what the person might be experiencing and how others nearby might think or act.

### Understand Point of View Switches Day 4

#### PROGRAM RESOURCES

Point of View Passage #3: eVisual 7.37

### Introduce

Arrange students in pairs and display **eVisual 7.37**.



#### Point of View Passage #3

Dad, Mom, and my brothers were asleep when the sun started coming up. It was the first day of our family vacation to Mountain Park on Mars. Everyone was asleep, except me. Sadly, \_\_\_\_\_ missed the best part of the trip! But not me, \_\_\_\_\_ was awake. \_\_\_\_\_ watched as the Earth rose over the horizon. The view was amazing. It made \_\_\_\_\_ see the world in a whole new light. Soon, \_\_\_\_\_ parents and brothers would wake up, and \_\_\_\_\_ would try to describe what \_\_\_\_\_ had seen. \_\_\_\_\_ would never understand what \_\_\_\_\_ had missed!

 [NGReach.com](#) Point of View Passage #3: eVisual 7.37



**INTERACTIVE WHITEBOARD TIP:** Circle the pronoun *me* to help students identify the narrator.

### Practice

Have partners rewrite the passage, completing each blank with the correct pronoun. When all the pairs are finished, invite one pair of students to read the completed passage aloud.

### Review and Assess Day 5

#### PROGRAM RESOURCES

Writing, Revising, and Editing Unit Test: Assessment Masters A7.33–A7.36

### Review the Skill

Have partners plan and write a narrative about an imaginary visit to a star. Remind them to think about the pronouns that should be used when describing their own thoughts and actions, and the pronouns to use when describing the thoughts and actions of other people.

Evaluate their work.

Administer the **Writing, Revising, and Editing Unit Test**.

### OBJECTIVES

**Thematic Connection: Exploring Space**

- ✔ Use Roots to Determine Word Meanings
- ✔ Compare Points of View


### PROGRAM RESOURCES

**TECHNOLOGY ONLY**

Read Aloud: eVisual 7.29

### MATERIALS

timer • index cards • markers



## WARM-UP

Review “The Moon Over Star” with students by pointing to the illustrations on **Anthology** pages 462, 465, and 471. Have students tell the story ideas depicted by these illustrations.

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *orbit*.

For **Writing Routine 1**, see page BP47.

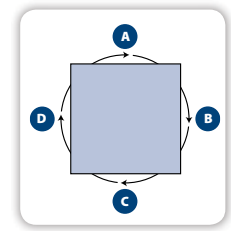
## Academic Talk

### 1 Discuss the Big Question

Remind students that when they report on a topic or concept, they should use formal language. Model using formal language to report on astronauts: *The first American astronauts rode capsules propelled into space by rockets. They were **launched** into **orbit** around our **planet** Earth.* Ask: *What makes this formal language?* (Possible response: The grammar is correct, and there is no slang.)

Use **Team Word Webbing** to have small groups explore the Big Question as it relates to the reading for Week 1.

- Give each team a large piece of paper and markers.
- Assign “Space Exploration” as the topic.
- Each team member adds to the nearest part of the word web. On a signal, team members rotate and add to the part of the web closest to them.



Team Word Webbing

Ask groups to discuss their responses to the Big Question. Remind them to use formal language.

For **Team Word Webbing**, see page BP46.

## Vocabulary Strategy

### 2 Word Parts ✔ Anthology page 478

Explain: *Many roots in English come from Latin, Greek, and other old languages. Roots have meaning, but they are not words by themselves.* Project **Student eEdition** page 478 and read aloud the introduction. Explain: *Because the Greek root **astro** means “star,” I know that astronomy has something to do with stars. Astronomy means “the study of the stars.”* Have volunteers read the chart aloud.

Model using the strategy: *First I look for the root in the word. The word **rotate** has the root **rota**, so rotate must have to do with wheels. The word **rotate** means to turn around a center, as a wheel would turn.* Repeat with the word *astronomer* (one who studies astronomy). Then write the following roots and their meanings: *cycl* (circle or ring) and *mot* (to move). Repeat with *cyclone*, *bicycle*, *motion*, and *motivate*.

See **Differentiate**

### COMMON CORE STANDARDS

#### Reading

Compare Points of View	CC.4.Rlit.6
Integrate Information from Two Texts	CC.4.Rinf.9
Apply Word Analysis Skills	CC.4.Rfou.3
Use Morphology to Read Multisyllabic Words	CC.4.Rfou.3.a
Read with Fluency to Support Comprehension	CC.4.Rfou.4

#### Writing

Apply Grade 4 Reading Standards

#### Speaking and Listening

Explain Ideas and Understanding

#### Language and Vocabulary

Determine Meanings of Words and Phrases





## Word Parts

Many English words are made up of word parts. A **root** is a word part that has meaning. Unlike a base word, though, it cannot stand on its own.

If you know the meaning of a root, you can sometimes figure out the meaning of the whole word.



**Astronaut** is formed from two roots:  
**astro** + **naut**. An astronaut is a “star sailor.”

Root	Origin	Meaning	Example
astro	Greek	star	astronomy
naut	Greek	sailor	nautical
wis	Old English	wise	wisdom
rota	Latin	wheel	rotation

### Try It Together

Answer each question. Use the chart above to help you.

- |  |   |
|--|---|
| <p><b>1. What do you think <u>wisdom</u> means?</b></p> <p>A a faraway star</p> <p>B someone who lives on a ship</p> <p>C a good student</p> <p>D good sense</p> | <p><b>2. What do you think <u>rotary</u> means?</b></p> <p>A a large ship</p> <p>B something that turns like a wheel</p> <p>C something that is rotten</p> <p>D a car</p> |
|--|---|

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### STUDENT TECHNOLOGY



Student eEdition



Resources

NGReach.com

Anthology page 478

### 3 Try It Together Anthology page 478

Read the directions aloud and have partners work together to answer the questions. (question 1: D; question 2: B)

## Check & Reteach

**OBJECTIVE:** Use Roots to Determine Word Meanings ✓

Assess students' understanding of the word parts by circulating and checking their answers to **Try It Together**.

If students have difficulty, explain that not every part of every word is a root. Remind students that words have other parts, such as prefixes and suffixes. A root gives the main meaning of the word. Model this by re-examining the chart: *In the word astronomy, astro- is the root. Astro- means “star.” The word part “nomy” is a suffix that means “knowledge.”* Tell students they can use a dictionary to look up the meanings of other word parts.

Direct students' attention to question 1. Explain: *The question asks for the meaning of the word wisdom. I look at the word chart and find a related root: wis-. The chart tells me that the meaning of this root is “wise.” So I look for an answer choice that has something to do with being wise. It's choice D, “good sense.”* Then have a volunteer explain the process of finding the correct answer for the word rotary in question 2.

## Weekly Writing

Gather students' writing throughout the week.

- ✓ Daily Writing Skills Practice (T477o–T477p)
- ✓ Power Writing (T477q, T478c, T481a, T483a, T483e)
- ✓ Writing (T478b, T481, T483, T483d, T483g)
- ✓ Writing Project (T484–T487)

## Differentiate

### EL English Learners

**ISSUE** Students lack proficiency to apply roots to English words.

**STRATEGY** Have students think of words in their native languages (if possible) that make use of the same roots shown in the chart. Have them apply the meanings of these words to the English words.

### AL Above Level

**ISSUE** Students have already mastered understanding of words in the lesson.

**STRATEGY** Provide more challenging words, such as *astrobiology* and *rotator*. Have students use their knowledge to guess the meanings and then use reference sources to check them.

## Fluency

**Model Phrasing** As you read the **Read Aloud**, model appropriate phrasing. Explain: *When you read with appropriate phrasing, you group words together to support the meaning of the text.*

## Best Practices

**Encourage Respect** Have students repeat what the person before them said before they express their own ideas. Provide an example: *You said that “The Moon Over Star” and “Inspiring the World” were both from the point of view of a girl. The difference between them, though, is that “The Moon Over Star” is in the first person, while “Inspiring the World” is in the third person.*

## Comprehension

## 4 Compare Points of View ✓

Review that in first-person point of view, the narrator is part of the story and uses the pronouns *we* and *I*. Introduce: *In third-person **point of view**, the narrator is not part of the action and only describes what others say and do. Both points of view use the pronouns *he*, *she*, and *they* when describing others.* Remind students that both points of view can be used for either fiction or nonfiction.

Display **eVisual 7.29** and read aloud the first paragraph of “Inspiring the World.” Model identifying the point of view: *In the first paragraph, the narrator describes only what others did. The narrator is an observer and is not part of the action. So, I think this is written in third-person point of view.* Read the rest of the text aloud.



## Read Aloud

Historical Fiction

## Inspiring the World

On July 20, 1969, about 600 million people around the world watched the same event on television. They watched as **astronauts** landed on the moon for the first time in history. The astronauts were in an American spacecraft called the *Eagle*. It was different times of day, and even different seasons, in different countries, but people across the **planet** were thrilled about this bold new adventure.

It was a summer day in Japan. A girl named Kyoko saw the pictures of the lunar module and thought, “Wouldn’t it be great to design rocket ships!” When she grew up, she worked for her country’s space agency to help **launch** satellites.

It was a winter day in Australia. A boy named Shawn looked with amazement at the footage from the moon and told himself, “I want to make movies about outer space when I grow up.” Twenty years later, he was creating computer graphics for films about space.

The moon landing inspired millions of people, each in his or her own way. Its effects on human history cannot be measured, but they have been great.

 [NGReach.com](https://www.ngreach.com) Read Aloud: eVisual 7.29



**INTERACTIVE WHITEBOARD TIP:** Circle the pronouns that are clues to the point of view.

Have partners identify other clues to point of view in the **Read Aloud**. Discuss how the word *I* in the third paragraph is not first-person narration. Then have partners look at **Anthology** page 462 and identify the narrator and point of view in “The Moon Over Star.” Have them compare the points of view of “Inspiring the World” and “The Moon Over Star.” Discuss how Mae’s account differs from the narrator’s account in “Inspiring the World.” Compare the type of information each account gives. (Mae’s account portrays the event through her eyes; “Inspiring the World” gives a variety of different viewpoints about the event.)

See **Differentiate**

## Check & Reteach

**OBJECTIVE:** Compare Points of View ✓

Check that students can identify which selection is in first-person and which is in third-person point of view and explain why.

If students have difficulty explaining the point of view of each selection, have partners write notes in which they tell each other about an event that has happened to them. Have them circle the pronouns they used. Explain that their notes are written in the first-person point of view because they are part of the event. Then have partners switch notes and revise them to reflect a third-person point of view, telling about something that happened to someone else.



## Daily Language Arts

**Daily Spelling and Word Work** ✓

Pretest page T477k

**Daily Grammar** ✓

Point out the title of the selection on **Anthology** page 479. Explain that *on* is a preposition. Then use page T477m to teach prepositions.

**Daily Writing Skills** ✓

Point out that the **Read Aloud** is written in third-person point of view. Use page T477o to teach point of view.

## Writing

### 5 Write with a Point of View

Model how to rewrite a paragraph, changing its point of view.

#### Think Aloud

*I'll change the first paragraph in "Inspiring the World" from the third person to the first person.*

#### Write

On July 20, 1969, about 600 million people around the world watched the same event on television. We watched as astronauts landed on the moon for the first time in history. They were in an American spacecraft called the Eagle. It was different times of day, and even different seasons, in different countries, but we were all thrilled about this bold new adventure.

For **Writing Routine 2**, see page BP48.

Have partners locate the fourth paragraph of "The Moon Over Stars" (beginning with "We decorate . . .") and rewrite it, changing the point of view from first to third person. Have students add their paragraphs to their Weekly Writing folders.



## WRAP-UP

Have students describe what it would be like to walk on the moon. Have them describe what they would see, think, and feel in the first-person point of view.

## Differentiate

### EL English Learners

**ISSUE** Students have difficulty remembering English personal pronouns.

**STRATEGY** Have partners of different fluency practice content-based sentences such as, "I want to be an astronaut" or "She wants to be an astronaut." As students say the sentences, have them point to themselves if the sentence is first person and to their partners if the sentence is third person. Then have them rephrase the sentences using the other point of view.

### BL Below Level

**ISSUE** Students are confused by the terms *first person* and *third person*.

**STRATEGY** Join in a group with two students. Ask: *If you and I talk, do you call yourself I or he or she? (I call myself I.) From your point of view, you are the first person, the I.* Then ask: *If you and I were talking about someone else, would you call that person I? Would you call the person he or she? (I would call the person he or she.) That point of view is called third person.*

Provide practice with these sentence frames. For each sentence, have the student identify the point of view and then turn it into the other point of view.

I would like to explore space.

\_\_\_\_\_ would like to explore space. (*He/She*)

They watched the moon landing.

\_\_\_\_\_ watched the moon landing. (*We*)

## OBJECTIVES

### Thematic Connection: Exploring Space

- ✔ Use Roots to Determine Word Meanings
- ✔ Form Generalizations to Comprehend Literature
- ✔ Compare Points of View

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

- Unit Concept Map: Practice Master PM7.1
- Family Newsletter 7

### TECHNOLOGY ONLY

- Digital Library: Key Word Images
- My Vocabulary Notebook

## MATERIALS

timer

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *launch*.

For **Writing Routine 1**, see page BP47.

## COMMON CORE STANDARDS

### Reading

- Refer to Details and Examples When Explaining Text CC.4.Rinf.1
- Apply Word Analysis Skills CC.4.Rfou.3
- Use Morphology to Read Multisyllabic Words CC.4.Rfou.3.a
- Read with Fluency to Support Comprehension CC.4.Rfou.4
- Read with Purpose and Understanding CC.4.Rfou.4.a

### Writing

- Draw Evidence from Texts CC.4.W.9

### Language and Vocabulary

- Determine Meanings of Words and Phrases CC.4.L.4

## WARM-UP

Have students recall details from “The Moon Over Star” to discuss what they know about Neil Armstrong, the first man on the moon. Have students make lists of their recollections.

## Vocabulary Strategy

### 1 More Word Parts

Explain that today students will learn more about root words. Remind them that root words are different from base words, because root words cannot stand alone. Give examples: *rotate* vs. *unload*. Copy and display the chart below and model how knowing roots can help you figure out the meanings of many words: *The root phon means “voice.” When I see this root in a word, I know that the word has something to do with the sound of a person’s voice. For example, I think of the words telephone and microphone.* Then read the remaining roots and meanings.

Root	Origin	Meaning
<i>phon</i>	Greek	“voice”
<i>cred</i>	Latin	“believe”
<i>dict</i>	Latin	“speak”

Display the words *phonics*, *incredible*, and *dictate*. Have partners use the chart and talk about how the meaning of the root gives a clue to each word’s meaning.

## Check & Reteach

**OBJECTIVE:** Use Roots to Determine Word Meanings ✔

Listen as partners discuss how roots relate to complete words.

If students do not understand the concept, write *phon* = “voice” and, below it, *phonics* = “how letter groups are spoken.” Underline the root in the word *phonics* and the word *spoken* in the definition. Ask: *How does the meaning of phon relate to the definition of phonics?* (The word *spoken* refers to using the voice.)

## Academic Talk

### 2 Preview and Predict

Project **Student eEdition** page 479. Ask: *What text features would you use to preview the biography?* (title, byline, bold opening phrase, photo, caption) Have students predict what the selection will be about.

**Connect Across Texts** Read this biography to learn more about Neil Armstrong, the first **astronaut** to walk on the moon.

**Genre** A **biography** is the true story of a person's life. It tells important facts about the person. It includes dates that tell when events happened.



## The First Person on the Moon

adapted from the National Aeronautics and Space Administration (NASA) Web site

**On July 20, 1969,** **astronaut** Neil Armstrong became the first person to **set foot** on the moon. As the world watched on television, Armstrong stepped onto the moon's surface and spoke these famous words: "One small step for man, one giant leap for **mankind**."

The astronauts placed an American flag on the moon's surface.

**In Other Words**  
**set foot** step  
**mankind** people everywhere

**Before You Move On**

- 1. Make Connections** How would it feel to be the first person to walk on the moon?
- 2. Paraphrase** What does Armstrong's famous quote mean? Restate it.

1 2

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### STUDENT TECHNOLOGY



Student eEdition



My Vocabulary Notebook



Resources

NGReach.com

Anthology page 479

### 3 Read a Biography

**CONNECT ACROSS TEXTS** Remind students that the story they read, "The Moon Over Star," was fiction, but it contained information about historical events. Then have a volunteer read aloud **Connect Across Texts**.

**GENRE** Read aloud the explanation of the genre at the top of the page. Clarify: *A biography tells more than just facts and dates. It describes the person's actions and personality. Everything in a biography should be based on facts.*

**SCIENCE BACKGROUND** Tell students that of the three members of the Apollo 11 crew, two—Neil Armstrong and Edwin "Buzz" Aldrin—flew to the surface of the moon in a small lunar module. The third, Michael Collins, remained in orbit around the moon, piloting the craft that would take all three back to Earth.

### Read and Build Comprehension

- 1. Points of View**  *Is the text narrated from Armstrong's first-person point of view or from the third-person point of view? (third person) How can you tell? (The narrator calls the astronaut Armstrong, and does not use the pronoun I.)*
- 2. Form Generalizations to Comprehend Literature**  *Make a **generalization** based on the text of page 479. (Possible response: People all over the world are fascinated by space travel.)*

### Fluency

**Practice Phrasing, Accuracy, Rate** As students read, monitor their phrasing, accuracy, and rate.

### Answers Before You Move On

- 1. Make Connections** Possible responses: To be the first person to walk on the moon would be exciting; It would be scary; It would be fun.
- 2. Paraphrase** When Armstrong, the man, took a step on the moon, human progress took a giant leap forward by showing it was possible to put a man on the moon.

## Answers Before You Move On

- 1. Generalize** ✓ Possible response: Being a hero means performing a courageous action that helps people or helps the world. The **astronauts** fit that meaning because it takes courage to fly into the unknown, and they advanced human knowledge by doing so.
- 2. Goal/Outcome** The Apollo program successfully achieved President Kennedy's goal of landing a man on the moon within the decade.

## Best Practices

**Encourage Respect** As students discuss generalizations and share their thoughts on the author's purpose, encourage them to validate others' contributions. Provide examples:

- *Good point.*
- *I hadn't thought of that.*
- *I disagree, but your point is good, too.*

## Daily Language Arts

**Daily Spelling and Word Work** ✓

Practice page T477k

**Daily Grammar** ✓

Point out the preposition *at* in the phrase *at age sixteen* on **Anthology** page 480. Then use page T477m to teach prepositions.

**Daily Writing Skills** ✓

Explain that the reading selection is written in third-person point of view. Then use page T477o to practice maintaining point of view.

## Read and Build Comprehension

- 1 Form Generalizations to Comprehend Literature** ✓ *What traits do you think a good **astronaut** must have?* (Possible responses: love of flying, interest in technology, good training, military experience, bravery)
- 2 Use Text Features** *In the photo, what does Armstrong's uniform tell you about his job?* (He is an **astronaut**, and he must wear special protective clothing to be safe in space.)
- 3 Identify Author's Purpose** *What is the author's purpose for writing this biography?* (Possible responses: to give information about an important historical figure; to inspire readers)

## Check &amp; Reteach

**OBJECTIVE: Form Generalizations to Comprehend Literature** ✓

As students answer comprehension questions, check to see if they can form generalizations.

If students cannot form generalizations, guide them to synthesize specific information into a generalization.

- *What do **astronauts** do?* (fly through space)
- *Who was called "the perfect person" to command the moon mission?* (Neil Armstrong)
- *What traits did he have?* (flight training, military experience, love of flying)

Then have them complete this sentence frame: A good astronaut \_\_\_\_\_.

**OBJECTIVE: Compare Points of View** ✓

As students answer the comprehension questions, check that they can identify different points of view in relation to biography.

If students have difficulty, ask: *How would this selection be different if Neil Armstrong were narrating it from the first-person point of view?* (Armstrong would call himself *I* in describing himself and narrating the events of the moon landing. He might reveal some of his thoughts and feelings.)

## The Right Pilot for the Job

This amazing day was the result of years of hard work. In 1961, President John F. Kennedy wanted America to be the first nation to land humans on the moon and bring them back safely. NASA space scientists worked toward that goal. At last they were ready to put people on the moon. Neil Armstrong was the perfect person to command the **mission**.

Armstrong was born in 1930 in Wapakoneta, Ohio. He loved flying, and he got his pilot's license at age sixteen. After graduating from college, he became a military pilot. In 1962 Armstrong joined NASA's astronaut program. **1**



▲ Neil Armstrong



◀ The astronauts left a small golden olive branch on the moon as a symbol of peace.

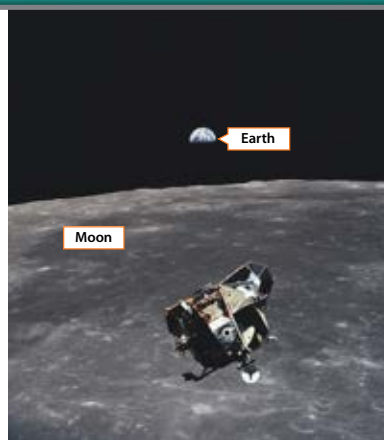
In Other Words  
**mission** project

480

In 1969 Armstrong became the commander of Apollo 11, the first **lunar** landing mission. He and his crew, Edwin "Buzz" Aldrin and Michael Collins, fulfilled the dream of a nation. When Apollo 11 returned safely to Earth, Armstrong was greeted as a hero.

Armstrong has received many awards, including the Presidential Medal for Freedom. Although he never walked on the moon again, he helped plan other space missions. He also taught spacecraft design at the University of Cincinnati. But he will always be remembered as the first person on the moon. ❖ **3**

In Other Words  
**lunar** moon



▲ The astronauts' return to Earth.



▲ The astronauts were greeted as heroes after the success of Apollo 11.

### ► Before You Move On

- 1. Generalize** What does it mean to be a hero? How did the **astronauts** fit that meaning?
- 2. Goal/Outcome** Compare President Kennedy's goal with the outcome of the Apollo 11 mission.

481

Anthology  
pages 480–481

## Writing

### 4 Write a Response

Have students write a response to the biography. Ask them to describe how a biography about Neil Armstrong is different from a news article about Armstrong's moon landing.

Model a response: *Neil Armstrong was the first person to walk on the moon. He achieved something important that had never been done before. This biography includes information about Armstrong's life in addition to his work as an astronaut.*

Tell students to use specific details from the text to support their ideas. Then have them add their responses to their Weekly Writing folders.

See **Differentiate**

## Differentiate

### SN Special Needs

**ISSUE** Students find it difficult to write their responses.

**STRATEGY** Adjust the assignment by having students identify specific details in the text about Armstrong's life, such as where he was born.

### AL Above Level

**ISSUE** Students want more information than the text provides.

**STRATEGY** Ask students to include questions in their written responses that they would like to have answered.

## WRAP-UP

Ask small groups to discuss this question: *Who is Neil Armstrong?* Have groups create a list of as many true statements as they can think of from the biography. Then ask groups to explain how these lists compare to their lists from the Warm-Up.

### OBJECTIVES

#### Thematic Connection: Exploring Space

- Compare Details
- Grammar: Use Prepositional Phrases

### PROGRAM RESOURCES

#### PRINT & TECHNOLOGY

- Comparison Chart: Practice Master PM7.26
- Grammar Practice: Practice Master PM7.27

#### TECHNOLOGY ONLY

- Grammar Passage: eVisual 7.34

### MATERIALS

timer • index cards • large envelope

## Power Writing

Have students write as much as they can as well as they can in one minute about *stars*.

For **Writing Routine 1**, see page BP47.

### COMMON CORE STANDARDS

#### Reading

- Refer to Details and Examples When Explaining Text CC.4.Rlit.1
- Compare Treatments of Similar Themes, Topics, and Patterns of Events CC.4.Rlit.9
- Refer to Details and Examples When Explaining Text CC.4.Rinf.1
- Integrate Information from Two Texts CC.4.Rinf.9
- Read with Fluency to Support Comprehension CC.4.Rfou.4
- Read with Purpose and Understanding CC.4.Rfou.4.a

#### Speaking and Listening

- Report on a Text CC.4.SL.4

#### Language and Vocabulary

- Demonstrate Command of Grammar CC.4.L.1
- Use Knowledge of Language and Conventions CC.4.L.3
- Determine Meanings of Words and Phrases CC.4.L.4
- Acquire and Use Domain-Specific Words CC.4.L.6

## WARM-UP

Have partners compare and contrast fiction and biography, using “The Moon Over Star” and “The First Person on the Moon” as examples. Ask volunteers to summarize their discussion for the class.

## Vocabulary Review

### 1 Review Science and Academic Vocabulary

Project **Student eEdition** page 482 and point out the Key Words. Also display *clarify* and *generalization*. Chorally read all the words as a class. Pause after each word and have a volunteer give the definition.

Write each word on an index card and place the cards in a large envelope. Have a volunteer draw a card and display it for the rest of the class to see. Challenge students to write a sentence using the word. Repeat the activity until all index cards have been chosen.

*generalization*

## Review and Integrate Ideas

### 2 Compare Fiction and Biography Anthology page 482

Read aloud the introduction on **Student eEdition** page 482. Remind students that “The Moon Over Star” is realistic fiction and includes real facts. Discuss the first two examples and which fact might be included in “The Moon Over Star.”

Have partners reread “The First Person on the Moon” and review “The Moon Over Star.” As they read, have students look for facts. Have them record the facts on **Practice Master PM7.26** and discuss the differences in the facts in the two stories.

## Check & Reteach

### OBJECTIVE: Compare Details

Monitor students’ ability to distinguish between fact and fiction in the story.

If students have difficulty, explain: *A biography is considered nonfiction. It usually focuses on the most important events in a person’s life. These events really did happen and are facts.* Then ask: *What is fiction?* (It is a story that is made up.) *Can fiction include facts?* (Yes.) *How do you know that a story detail is a fact?* (if it can be proven) Read the first sentence on **Anthology** page 464. Ask: *Is Mae really a launch controller?* (No, this is fiction.) Point to Mae’s statement about the rocket moving 25,000 miles an hour. Explain: *You could check to see if this is a fact.* Have students locate another fact on page 465. (In May 1961, Kennedy said America would send people to the moon within 10 years.)





Key Words	
astronaut	orbit
capacity	planet
constant	resistance
launch	rotation
limit	technology

## Compare Fiction and Biography

A story that is fiction is not true, even if it includes events that really happened. A biography is nonfiction. It tells a true story.

Compare the story and the biography. What events and facts do both of them tell about? Work with a partner to complete a comparison chart.

Comparison Chart

Put a checkmark if it gives the fact.

Event or Fact	"The Moon Over Star"	"The First Person on the Moon"
Neil Armstrong was born in 1930.		✓
In 1961, President Kennedy said that America would send people to the moon.		✓
Armstrong, Aldrin, and Collins flew to the moon in the summer of 1969.		
Armstrong was the commander of the mission.		
The first person to walk on the moon was Armstrong.		
The world watched on television.		
Armstrong said, "One small step for man, one giant leap for mankind."		
The astronauts placed a flag on the moon.		
The moon is 240,000 miles from Earth.		

### Talk Together

What did it take for the astronauts to explore the moon? Think about the story and the biography. Use **Key Words** to talk about your ideas.

482

### STUDENT TECHNOLOGY



Student eEdition



Resources

NGReach.com

## Fluency

**Practice Phrasing** As students reread the biography aloud, circulate and listen for correct phrasing.

## Best Practices

**Model Academic Language** If student discussions about exploring the moon reflect too much informal talk, model an academic conversation with or between two students. Then have students echo the model to role-play academic discussions in small groups.

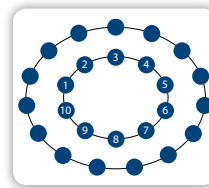
## Academic Talk

### 3 Talk Together Anthology page 482

Review "The Moon Over Star" and "The First Man on the Moon." Have groups use a **Fishbowl** to discuss what it took for the astronauts to explore the moon.

- Part of each group sits in a close circle facing inward. The other part of the group sits in a large circle around them.
- Students in the inner circle discuss astronauts exploring the moon, while those in the outside circle listen to evaluate what is being discussed.
- Groups reverse positions, with the new inner circle adding information relevant to the topic and the new outside circle evaluating these additions.

For **Fishbowl**, see page BP45.



Fishbowl

Name \_\_\_\_\_ Date \_\_\_\_\_

Comparison Chart

### Compare Fiction and Biography

Compare a story and a biography.

Event or Fact	"The Moon Over Star"	"The First Person on the Moon"
Neil Armstrong was born in 1930.		✓
In 1961, President Kennedy said that America would send people to the moon.	✓	✓
Armstrong, Aldrin, and Collins flew to the moon in the summer of 1969.	✓	✓
Armstrong was the commander of the mission.	✓	✓
The first person to walk on the moon was Armstrong.	✓	✓
The world watched on television.	✓	✓
Armstrong said, "One small step for man, one giant leap for mankind."	✓	✓
The astronauts placed a flag on the moon.		✓
The moon is 240,000 miles from Earth.	✓	
Responses will vary.		

Work with a partner to complete the chart. What other fact or event did you add? Discuss with another team the facts that each selection gave about Armstrong.

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## Differentiate

### EL English Learners

**ISSUE** Students mix up the meanings of certain prepositions, such as *on* and *in*.

**STRATEGY** Have students draw a simple sketch of a house. Call out the prepositional phrases *in the house* and *on the house*, and have students show the meanings by adding an "X" to the appropriate spot on the sketch.

### BL Below Level

**ISSUE** Students do not understand the grammatical concept of prepositions.

**STRATEGY** Write a list of prepositions by type (time, direction, location, or details) for students. Have partners work together to think of a phrase or sentence using each one.

## Grammar Focus

### 4 Prepositional Phrases Anthology page 483

Project **Student eEdition** page 483. Have volunteers read aloud the introduction and review the chart.

Then display **eVisual 7.34** and read aloud the passage, pausing to identify the first prepositional phrase and its purpose: *The prepositional phrase is "On our last day." Its purpose is to show time.* Have students identify the remaining prepositional phrases in the passage and explain whether they tell time, direction, location, or details.



### Grammar Passage

On our last day in space, we flew toward Earth with a feeling of great happiness. After all that time in flight, we were finally going home. We had explored the solar system from Mars to Neptune, orbiting each planet and discovering new wonders every day. Now it was time to return to our lives back home.

 [NGReach.com](http://NGReach.com) Grammar Passage: eVisual 7.34



**INTERACTIVE WHITEBOARD TIP:** Circle each preposition and underline its object.

### 5 Read Prepositional Phrases Anthology page 483

Read aloud the directions and the passage from "The Moon Over Star." After students have found the prepositions in the excerpt, have partners find at least five additional prepositional phrases in the selection.

See **Differentiate**

### 6 Write Prepositional Phrases Anthology page 483

Read aloud the directions and have students write independently. Provide support as necessary. Assign **Practice Master PM7.27**.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Practice**

### The Moon Over Me


**Grammar Rules Prepositional Phrases**

A prepositional phrase starts with a preposition and ends with a noun or a pronoun. A prepositional phrase can:

show where	in, on, at, over, under, above, below, next to, beside, in front of, behind
show time	after, until, before, during
show direction	into, throughout, up, down, through, across, to
add details	with, to, about, among, except, of, from

Add one or more prepositional phrases to each sentence.

- I found a book about the moon at the library.
- The book was filled with beautiful photographs.
- I was excited to take the book to school.
- We have been studying about the moon in class.
- My teacher liked the fact sheet at the back of the book.
- My favorite photo is the picture with the flag on the moon.

 Choose a Picture Card and use prepositional phrases to tell about it. For example: I want to travel in a space ship.

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## Check & Reteach

**OBJECTIVE:** Grammar: Use Prepositional Phrases 

As partners look through "The Moon Over Star," check that they can identify prepositional phrases.

If they have difficulty, call attention to the first paragraph and ask:

- *Which phrase tells you the year?* (in 1969)
- *Which two phrases tell you where the narrator is?* (in the town, of Star)
- *Which phrase tells you where the astronauts would land?* (on the moon)
- *Which phrase tells you where the narrator would like to go one day?* (to the moon)

Write the responses and underline the prepositional phrases.



## Prepositional Phrases

A **prepositional phrase** starts with a **preposition** and ends with a noun or a pronoun. Use prepositional phrases in these ways.

### Grammar Rules Prepositional Phrases

• to show where something is	Earth orbits the sun <b>between Venus and Mars.</b>
• to show time	<b>After sunset,</b> the moon rose.
• to show direction	A meteor flew <b>across the sky.</b>
• to add details	The space ship landed <b>with a thud.</b> The astronauts worked <b>as a team.</b>

### Read Prepositional Phrases

Read this passage from "Moon Over Star." Can you find four prepositional phrases? They start with the prepositions *with*, *of*, *into*, and *through*.

We closed our eyes, imagining with all our might the rumble, the roar, and the force of the Saturn rocket, blasting the spaceship into the stars. Then we were rushing through space.

### Write Prepositional Phrases

Write a short paragraph about exploring space. Use at least three prepositional phrases to describe the event.

483

Anthology page 483

## Writing

### 7 Write to Reinforce Grammar

Have students return to "The Moon Over Star" and find their favorite passage. Have them add two or more sentences of their own to the passage.

- Student writing should include at least two prepositional phrases.
- Have them circle the phrases and underline the prepositions.
- Have them add marginal notes to identify what each prepositional phrase tells: location, time, direction, or detail.

Circulate to assess student work. Then have students add their sentences to their Weekly Writing folders.

**WRAP-UP** Have students form small groups to briefly discuss whether they would like to participate in a mission to Mars with NASA. Remind them to support their ideas with details.

### Daily Language Arts

#### Daily Spelling and Word Work

Practice page T477I

#### Daily Grammar

Point out the prepositional phrases to *Earth* and *of Apollo 11* in the captions on **Anthology** page 481. Then use page T477n to teach prepositional phrases.

#### Daily Writing Skills

Point out that although "The Moon Over Star" is written in first-person point of view, the narrator still uses third-person pronouns such as *he*, *she*, and *they* to talk about other people. Use page T477p to practice the narrative point of view.

# Day 4 Read and Comprehend

## Firsthand and Secondhand Accounts

### OBJECTIVES

#### Thematic Connection: Exploring Space

- ✓ Compare and Contrast Accounts
- ✓ Use Roots to Determine Word Meanings

### PROGRAM RESOURCES

#### PRINT & TECHNOLOGY

Mark-Up Reading: Practice Masters PM7.28–PM7.29

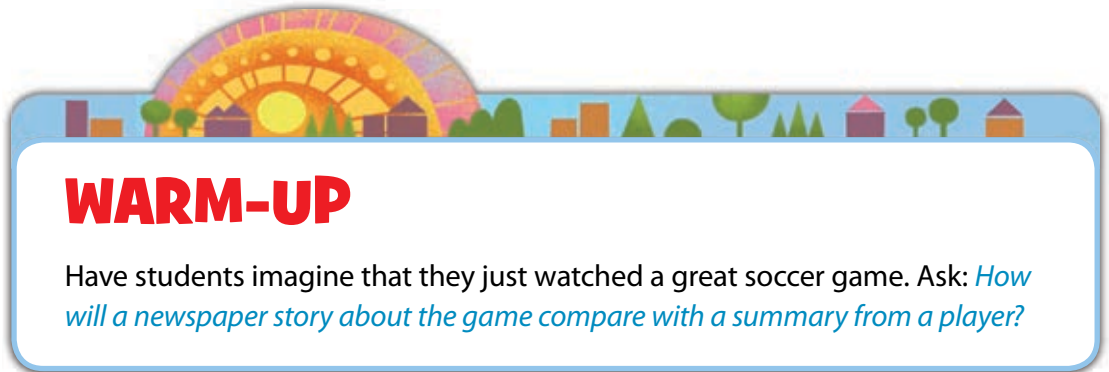
#### TECHNOLOGY ONLY

Mark-Up Model 7.2 or Model 7.2 PDF

Vocabulary Strategy Practice: eVisual 7.38

### MATERIALS

yellow highlighters and blue markers • timer



## Comprehension

### 1 Compare and Contrast Accounts ✓

Explain that students will read two people's accounts of the first time humans landed on the moon. Define: *An account is a report of an event.* Explain that students will compare and contrast how two people report on the same event.

### SCREEN 1

- 1 Display **Mark-Up Model 7.2** and read aloud the introduction on **Practice Master PM7.28**. Then read aloud Armstrong's account as students follow along using **Practice Master PM7.28**. Read aloud the definition of *firsthand account*.

Explain: *You know from the introduction that Neil Armstrong was present during the event. Now you will learn other ways to identify a firsthand account.*

- 2 Have volunteers follow the instructions and click the Actions and Information buttons. Have students mark up **Practice Master PM7.28**. Elaborate: *Firsthand narrators tell what they see, hear, and do during the event and provide information that was important to them.* Model identifying the type: *The words we underlined and information we highlighted show that Armstrong was present during the event. This shows that his is a firsthand account.* Click the arrow to go to the next screen.

### SCREEN 2

- 3 Read aloud the introduction to Walter Cronkite's account on **Practice Master PM7.28**. Read aloud Cronkite's account and the definition of *secondhand account*. Elaborate: *Secondhand narrators tell what they see and/or hear about what others say and do during the event. They provide information that is important to someone not present during the event.*

- 4 Have volunteers follow the instructions and click the Actions and Information buttons. Have students mark up **Practice Master PM7.28**. Ask: *How do the words we underlined and highlighted show that this is a secondhand account?* (They show that Cronkite was not present during the event.) Click on the arrow to go on.

### SCREEN 3

- 5 Guide students to follow the instructions. On the back of **Practice Master PM7.28**, have students copy and complete the chart.

Have students mark up the rest of **Practice Masters PM7.28–PM7.29**. To enrich the lesson, have students view the video of Cronkite's broadcast; go to Resources > Unit 7 > Learning Stations > Week 4 > Man on the Moon.

Name \_\_\_\_\_ Date \_\_\_\_\_

#### Mark-Up Reading

### The Lunar Landing

by Neil Armstrong, Walter Cronkite, and Edwin Aldrin

On July 20, 1969, American astronauts Neil Armstrong and Edwin "Buzz" Aldrin became the first humans on the moon. Following is a transcript of what Armstrong said as he stepped out of the Eagle, the LM or lunar module, and down its ladder. At first Armstrong spoke to Aldrin, who was still inside the LM.



▲ Armstrong and Aldrin left an American flag on the moon.

**Armstrong:** Okay, I just checked getting back up to that first step. Buzz. It's... **The strut isn't collapsed too far**, but it's adequate to get back up... Takes a pretty good little jump (to get back up to the first step). (Pause) I'm at the foot of the ladder. The LM **footpads are only depressed in the surface about 1 or 2 inches**, although the **surface appears to be very, very fine grained** as you get close to it. It's almost like a powder. (The) ground mass is very fine. I'm going to step off the LM now. (Long Pause) That's one small step for... man; one giant leap for mankind.

Reporter Walter Cronkite described the event live on television.

**Cronkite:** So there's a foot on the moon, stepping down on the moon. If he's testing that first step, he must be stepping down on the moon at this point. Whoa, look at those pictures—wow! It's a little shadowy, but he said he expected that in the shadow of the lunar module. Armstrong is on the moon—**Neil Armstrong, 38-year-old American, standing on the surface of the moon on this July 20<sup>th</sup>, 1969.**

#### In Other Words

transcript written record

lunar module spaceship that landed on the moon

strut support for the ladder

depressed sank

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For use with TE pp. T483a–T483h

PM7.28

Unit 7 | Moving Through Space

NGReach.com Practice Masters PM7.28–PM7.29

### COMMON CORE STANDARDS

#### Reading

- Compare Firsthand and Secondhand Accounts CC.4.Rinf.6
- Apply Word Analysis Skills CC.4.Rfou.3
- Use Morphology to Read Multisyllabic Words CC.4.Rfou.3.a
- Read with Fluency to Support Comprehension CC.4.Rfou.4

#### Writing

- Draw Evidence from Texts CC.4.W.9
- Language and Vocabulary**
- Determine Meanings of Words and Phrases CC.4.L.4



SCREEN 1

# The Lunar Landing

## Neil Armstrong's Account

**1** A firsthand account is told by a person who was present during the event.



▲ Armstrong and Aldrin left an American flag on the moon.

**Armstrong:** Okay, I just checked getting back up to that first step, Buzz. It's...The **strut** isn't collapsed too far, but it's adequate to get back up.... Takes a pretty good little jump (to get back up to the first step). (Pause) I'm at the foot of the ladder. The LM footpads are only **depressed** in the surface about 1 or 2 inches, although the surface appears to be very, very fine grained as you get close to it. It's almost like a powder. [The] ground mass is very fine. I'm going to step off the LM now. (Long Pause) That's one small step for...man; one giant leap for mankind.

Underline words that tell what Armstrong does and sees. Highlight information Armstrong provides.

In Other Words  
strut support for a ladder  
depressed sunk

**2** Actions **2** Information

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NGReach.com Mark-Up Model 7.2

SCREEN 2

# The Lunar Landing

## Walter Cronkite's Account

**3** A secondhand account is told by a person who was not present during the event.



▲ Walter Cronkite watched Armstrong step onto the surface of the moon.

**Cronkite:** So there's a foot on the moon, stepping down on the moon. If he's testing that first step, he must be stepping down on the moon at this point. Whoa, look at those pictures—wow! It's a little shadowy, but he said he expected that in the shadow of the lunar module. Armstrong is on the moon—Neil Armstrong, 38-year-old American, standing on the surface of the moon on this July 20th, 1969.

Underline words that tell what Cronkite sees. Highlight information Cronkite provides.

**4** Actions **4** Information

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SCREEN 3

# The Lunar Landing

Talk about what each narrator does and sees, what information he provides, and the type of account he gives. Then erase to check your answers.

### Armstrong's and Cronkite's Accounts

Narrator	What he does and sees	Information he provides	Type of account
<b>5</b> Armstrong	<ul style="list-style-type: none"> <li>checks the ladder</li> <li>studies the moon's surface</li> <li>steps onto the moon</li> <li>says "That's one small step for...man; one giant leap for mankind."</li> </ul>	<ul style="list-style-type: none"> <li>technical information about the LM</li> <li>scientific formation about the moon's surface</li> </ul>	firsthand
Cronkite	<ul style="list-style-type: none"> <li>describes the video footage coming from the moon</li> <li>sees Armstrong step onto the moon</li> </ul>	<ul style="list-style-type: none"> <li>historic details of the event</li> </ul>	secondhand

Navigation icons

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## Fluency ✓

**Model and Practice Phrasing** Explain: *Instead of reading word by word, fluent readers group words into phrases that present ideas.* Discuss cues in the text that indicate pauses, such as commas and end punctuation. Model reading the first paragraph from **Practice Master PM7.28**. Have students mark where you pause on their **Practice Master PM7.28** pages, and then have them read the same lines, marking where they pause.

## Check & Reteach

**OBJECTIVE:** Compare and Contrast Accounts ✓

Look at students' marked-up **Practice Masters PM7.28–PM7.29** to check if they correctly identify what each narrator says and does and provides for information.

If students have difficulty identifying the details, guide with questions, such as: *What did Armstrong say about the lunar module?* (Possible response: that the ladder didn't extend completely) *What did he say about the surface of the moon?* (Possible response: that it was like powder)



### Daily Language Arts

**Daily Spelling and Word Work** ✓  
Practice page T477l

**Daily Grammar** ✓  
Have students find the prepositional phrase *on July 20th, 1969* in the first sentence on **Practice Master PM7.28**. Then use page T477n to review prepositions and prepositional phrases.

**Daily Writing Skills** ✓  
Briefly discuss the points of view of Aldrin and Cronkite's accounts. Use page T477p to review how to maintain point of view.

### Power Writing

Have students write as much as they can as well as they can in one minute about the solar system.

For **Writing Routine 1**, see page BP47.

## Vocabulary Practice

### 2 More Word Parts ✓

Remind students that they have learned that many English words have Greek, Latin, and Old English roots, and that understanding these roots can help them understand the meanings of unfamiliar words. Then display **eVisual 7.38**.



### Vocabulary Strategy Practice

A flat landscape of rocks and craters stretched in all directions. Everything was gray or white. The shadows and the sky above were as black as the blackest velvet I had ever seen. I exclaimed: "Magnificent desolation."

Word	Root	English Meaning
crater	Greek, <i>krater</i> , "bowl"	a sunken area in the ground that is shaped like a bowl
direction	Latin, <i>regere</i> , "to guide"	place toward which one's eyes move
exclaim	Latin, <i>clamare</i> , "to call"	call out suddenly and loudly
magnificent	Latin, <i>magnus</i> , "great"	great or awesome
desolation	Latin, <i>solus</i> , "alone"	loneliness or emptiness

[NGReach.com](http://NGReach.com) Vocabulary Strategy: eVisual 7.38



**INTERACTIVE WHITEBOARD TIP:** Have students circle the root in each English word.

Read aloud the passage and explain that it comes from astronaut Buzz Aldrin's account of the moon landing. Model the thinking in defining *crater*: *The root of the English word crater comes from the Greek word krater, which means "bowl." The English word crater probably means "something shaped like a bowl." The rest of the sentence mentions a landscape. This tells me that, in this sentence, craters means bowl-shaped places such as the pits on the surface of the moon.*

Then have students recreate the table and use the meaning of a Greek or Latin root to help them define each underlined English word in the passage.

### Check & Reteach

**OBJECTIVE:** Use Roots to Determine Word Meanings ✓

Review students' tables to check if they use roots and contexts to correctly determine the meanings of the English words.

If students have difficulty, model with *direction*. *The root of the English word direction comes from the Latin regere, which means "to guide." The rest of the sentence mentions a landscape. This tells me that, in this sentence, directions means "what a landscape guides my eyes toward."*

# Writing

## 3 Write About Accounts

Introduce the activity: *Now write a paragraph that compares firsthand and secondhand accounts of the Apollo XI moon landing.* Model the process.

Think Aloud	Write
<i>First, I'll explain how the accounts are similar.</i>	Both Armstrong and Cronkite describe how amazing the <i>Apollo XI</i> moon landing is. Armstrong says it's a giant leap for mankind, and Cronkite uses words like <i>wow</i> .
<i>Now, I'll explain how Armstrong's account is different.</i>	Armstrong focuses on the way the moon looks. He says the surface looks like powder.
<i>Then, I'll explain how Cronkite's account is different.</i>	Cronkite focuses on how historic the moon landing is. He gives details about Armstrong and the date of the landing.

For **Writing Routine 2**, see page BP48.

See **Differentiate**

# Academic Talk

## 4 Discuss Generalizations

Introduce the activity: *Now you will make generalizations based on people's experiences of the moon landing.* Have students recall what they learned about making generalizations on **Anthology** page 458.

Model: *Walter Cronkite expressed amazement with words such as "wow!" To make a generalization, I fit this idea with what I already know about how people respond to big events. My generalization is that other people watching the landing were amazed, too.* Have students review **Practice Masters PM7.28–PM7.29** for details.

## Differentiate

### BL Below Level

**ISSUE** Students lack skill at expressing comparisons.

**STRATEGY** Have partners ask and answer questions, such as:

- *What did Armstrong (or Aldrin) and Cronkite both describe?*
- *What did only Armstrong (or Aldrin) describe?*
- *What did only Cronkite describe?*

### AL Above Level

**ISSUE** Students satisfy the minimum requirement for the assignment.

**STRATEGY** Challenge students to a contest to see who can write about the most details in their comparisons.

## WRAP-UP

Tell students that they are trying to decide what happened at a concert. They can either talk to someone who was there or someone who watched it on a Web site. Ask: *What kind of account would the narrator who attended the concert give?* (firsthand) *What kind of account would the one who watched it on a Web site give?* (secondhand) *What kind of information would you get from each account?*

## OBJECTIVES

**Thematic Connection: Exploring Space**

- Use Roots to Determine Word Meanings
- Compare and Contrast Accounts

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

**Unit Concept Map: Practice Master PM7.1**

**Mark-up Reading: Practice Masters PM7.28–PM7.29**

### TECHNOLOGY ONLY

**Vocabulary Strategy Practice: eVisual 7.39**

**Comparison Chart: eVisual 7.40**


## MATERIALS

green and yellow markers • timer

## Power Writing

Have students write as much as they can as well as they can in one minute about the word *news*.

For **Writing Routine 1**, see page BP47.



## WARM-UP

Remind students of the Greek root *astro*, meaning “star.” Display the sentence “Astronauts are experts in astronomy.” Ask: *In this sentence, which two words contain this root?* (*astronaut* and *astronomy*)

## Vocabulary Practice

### 1 Word Parts

Remind students that they have learned how to use Latin, Greek, and Old English roots to identify the meanings of English words. Display **eVisual 7.39**.



### Vocabulary Strategy Practice

I don't like being the center of attention because I prefer solitude. So I was very nervous about giving a speech about space travel at the science fair. I was surprised at how loud the microphone made my voice. It magnified my voice to reach everyone in the hall! At the end of my speech I heard a great clamor of applause. What an incredible surprise! I was relieved that the speech went so well.

Root	Meaning	Origin
<i>clamare</i>	to call	Latin
<i>cred</i>	believe	Latin
<i>magnus</i>	great	Latin
<i>phon</i>	sound	Greek
<i>solus</i>	alone	Latin
<i>wel</i>	pleasure	Old English

[NGReach.com](http://NGReach.com)

Vocabulary Strategy: eVisual 7.39



**INTERACTIVE WHITEBOARD TIP:** Have students underline the root in each underlined word.

## COMMON CORE STANDARDS

### Reading

- Compare Firsthand and Secondhand Accounts CC.4.Rinf.6
- Apply Word Analysis Skills CC.4.Rfou.3
- Use Morphology to Read Multisyllabic Words CC.4.Rfou.3.a

### Writing

- Apply Grade 4 Reading Standards CC.4.W.9.b

### Speaking and Listening

- Come to Discussions Prepared and Draw on Preparation and Information to Explore Ideas CC.4.SL.1.a

### Language and Vocabulary

- Determine Meanings of Words and Phrases CC.4.L.4

Read the passage aloud. Have partners use the meaning of the root and context to determine the meaning of underlined words. Model: *The root of solitude is solus, which means “alone” in Latin. The other words in the sentence contrast solitude with being the center of attention, so solitude means “time spent alone.”*

## Check & Reteach

**OBJECTIVE:** Use Roots to Determine Word Meanings

Listen to students to see if they correctly use roots and context to define underlined words. If students have difficulty, support them with questions, such as: *What is the root in the word? What does the root mean? What clue does the context give? What does the word mean?*




Name \_\_\_\_\_ Date \_\_\_\_\_

**Mark-Up Reading**

## The Lunar Landing

by Neil Armstrong, Walter Cronkite, and Edwin Aldrin

On July 20, 1969, American astronauts Neil Armstrong and Edwin "Buzz" Aldrin became the first humans on the moon. Following is a transcript of what Armstrong said as he stepped out of the Eagle, the LM or **lunar module**, and down its ladder. At first Armstrong spoke to Aldrin, who was still inside the LM.



▲ Armstrong and Aldrin left an American flag on the moon.

**Armstrong:** Okay, I just checked getting back up to that first step, Buzz. It's... **The strut isn't collapsed too far**, but it's adequate to get back up... Takes a pretty good little jump (to get back up to the first step). (Pause) I'm at the foot of the ladder. The LM **footpads are only depressed in the surface about 1 or 2 inches**, although the **surface appears to be very, very fine grained** as you get close to it. It's almost like a powder. [The] ground mass is very fine. I'm going to step off the LM now. (Long Pause) **That's one small step for... man; one giant leap for mankind.**

Reporter **Walter Cronkite** described the event live on television.

**Cronkite:** So there's a foot on the moon, stepping down on the moon. If he's testing that first step, he must be stepping down on the moon at this point. Whoa, look at those pictures—wow! It's a little shadowy, but he said he expected that in the shadow of the lunar module. Armstrong is on the moon—**Neil Armstrong, 38-year-old American, standing on the surface of the moon on this July 20<sup>th</sup>, 1969.**

In Other Words  
transcript: written record  
lunar module: spaceship that landed on the moon

strut: support for the ladder  
depressed: sank

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For use with TE pp. T483a–T483h


**PM7.28** Unit 7 | Moving Through Space

Name \_\_\_\_\_ Date \_\_\_\_\_

**Mark-Up Reading**

## The Lunar Landing (continued)

Cronkite watched as Buzz Aldrin followed Armstrong down the ladder and became the second man on the moon.



▲ Walter Cronkite watched Armstrong and Aldrin step off the LM onto the surface of the moon.

**Cronkite:** Aldrin then followed Armstrong out of the LM and into history. **There he comes.** Watch that last step! I guess he expected that step to **compact** a little bit more and, as a result, it's a long step. And **how we have two Americans on the moon.** **Three-foot first step** at one-sixth gravity, and look at that!

More than forty-five years later, Buzz Aldrin reflected on the event in his book, *Buzz Aldrin: Reaching for the Moon*.

**Aldrin:** Neil and I put on our space suits. Neil climbed out first and descended *Eagle's* ladder to the moon's surface. Everyone listening back on Earth heard Neil's first words: "That's one small step for... man, one giant leap for mankind."  
I climbed down the ladder and joined Neil. There was no color on the moon. **A flat landscape of rocks and craters** stretched in all directions. Everything was **gray or white**. The shadows and the sky above were as black as the blackest velvet I had ever seen. I exclaimed: **"Magnificent desolation."**

In Other Words  
compact: push together with the next step  
Three-foot first step: He easily jumps three feet between the ladder and the ground  
Magnificent desolation: Amazing and beautiful emptiness.

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For use with TE pp. T483a–T483h

**PM7.29** Unit 7 | Moving Through Space

[NGReach.com](https://www.ngeareach.com) Practice Masters PM7.28–PM7.29

## Review and Integrate Ideas

### 2 Identify Accounts

Explain that students will identify firsthand and secondhand accounts of an event. Display these steps to identify an account:

1. Identify the narrator, using labels, such as *astronaut* or *news reporter*.
2. Identify what the narrator sees, hears, and does.
3. Identify information the narrator provides.
4. Explain how details in steps 1 through 3 show whether the account is firsthand or secondhand.

Model the process for the account in "The Moon Over Star."

1. *The narrator is a young girl named Mae at her home in the town of Star.*
2. *Mae describes what she saw and heard during the television coverage of the moon landing.*
3. *Mae describes the words on the television screen and in Cronkite's report.*
4. *Mae's account is a secondhand account. She was not present on the moon; she watched the event on television.*

Have students use the steps to identify the types of accounts on **Practice Masters PM7.28–PM7.29**.

## Daily Language Arts

### Daily Spelling and Word Work

Test page T477k

### Daily Grammar

Have students identify the preposition *down* in the first sentence of Cronkite's account on **Practice Master PM7.28**. Then use page T477n to review prepositions and prepositional phrases.

### Daily Writing Skills

Use page T477p to review and assess students' understanding of point of view.

## 3 Compare and Contrast Accounts

Explain to students that they will compare the details about the first moon landing presented in "The Moon Over Star," "The First Person on the Moon," and "The Lunar Landing" on **Practice Masters PM7.28–PM7.29**. Display **eVisual 7.40**.



### Comparison Chart

Selection	Narrator	What the narrator sees, hears, and does	Information the narrator provides	Type of Account
"The Moon Over Star"	a young girl	<ul style="list-style-type: none"> <li>sees what the television screen shows</li> <li>hears Cronkite's report</li> </ul>	<ul style="list-style-type: none"> <li>words on the television screen</li> <li>Cronkite's words</li> </ul>	secondhand
"The First Person on the Moon"	a biographer	<ul style="list-style-type: none"> <li>tells facts about Armstrong's life and career</li> </ul>	<ul style="list-style-type: none"> <li>Armstrong was the first person to walk on the moon.</li> </ul>	secondhand

[NGReach.com](http://NGReach.com)

Comparison Chart: eVisual 7.40



**INTERACTIVE WHITEBOARD TIP:** Have students highlight types of accounts in two colors.

## Differentiate

### SN Special Needs

**ISSUE** Students are unable to focus on a structure for the assignment.

**STRATEGY** Provide sentence frames to focus students:

- Armstrong looks down and says the moon's surface looks like \_\_\_\_\_.
- Armstrong's account is \_\_\_\_\_.
- Cronkite tells what he sees \_\_\_\_\_.
- Cronkite's account is \_\_\_\_\_.

### BL Below Level

**ISSUE** Students have difficulty comparing accounts.

**STRATEGY** Provide an outline based on the steps to identify an account:

- Identity of each narrator
- What each narrator sees, hears, and does
- Information each narrator provides
- Details that show whether each account is firsthand or secondhand

Display the steps to identify an account from page T483f and use them to model making entries for "The Moon Over Star." Then have students expand the chart and complete it for all three selections. Facilitate a discussion of similarities and differences among the firsthand and secondhand accounts of the same event.

## Check & Reteach

**OBJECTIVE:** Compare and Contrast Accounts

Review students' charts to check if they are able to identify the type of account.

If students struggle, model identifying an account with "The First Person on the Moon."

## Writing

### 4 Write About Point of View

Introduce the activity: *Now you will write a paragraph that compares the firsthand and secondhand accounts of the moon landing. Explain how the steps to identify an account helped you identify each type of account.* Allow time for each student to select a firsthand and a secondhand account and write about them. Have volunteers share their comparisons. Students add them to Weekly Writing folders.

See **Differentiate**

## Academic Talk

### 5 Relate Readings to the Big Question

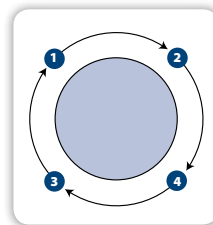
Have students recall the unit's Big Question: What does it take to explore space? *Think about "The Moon Over Star," "The First Person on the Moon," "The Lunar Landing," and a Small Group Reading book you have read. How did those selections show what it takes to explore space?*

Model a response to the question for "The Moon Over Star." *At first, Mae's grandfather doesn't understand why the moon landing is important. Because Mae dreams about traveling to the moon, she wonders what her grandfather's dreams were like when he was young. Maybe having big dreams when you're young is part of what it takes to explore space.*



Use a **Roundtable** to have students continue discussion about how the readings relate to the Big Question.

- Form groups of four. Seat each group around a table.
- Ask each group a question with many possible answers.  
Possibilities:
  - *How might a person become interested in studying space?*
  - *What skills does a space explorer need?*
  - *Why does exploring space interest so many people?*
  - *Is it important to study space? Why or why not?*
- Encourage each student around each table to answer the question in a different way.



Roundtable

### Best Practices

**Encourage Elaboration** As students talk, encourage them to explain themselves fully. Ask:

- *What makes you say that?*
- *Can you give an example from one of the readings of what you mean?*
- *How do your ideas relate to someone else's ideas?*

### WRAP-UP

Explain that the astronauts of *Apollo XI* left a plaque on the moon that says:

**HERE MEN FROM THE PLANET EARTH  
FIRST SET FOOT UPON THE MOON  
JULY 1969, A.D.  
WE CAME IN PEACE FOR ALL MANKIND**

## OBJECTIVE

**Thematic Connection: Exploring Space**

 Write a Personal Narrative: Voice

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

Writing Rubric: Assessment Master 7.41

### TECHNOLOGY ONLY

Voice: eVisual 7.32

## SUGGESTED PACING

DAY 1	Study a Model
DAY 2	Prewrite
DAY 3	Draft
DAY 4	Revise/Edit and Proofread
DAY 5	Publish and Present

## COMMON CORE STANDARDS

### Writing

Write Narratives	CC.4.W.3
Plan, Revise, and Edit Writing	CC.4.W.5
Write Over Extended Time Frames for Specific Tasks, Purposes, and Audiences	CC.4.W.10

### Language and Vocabulary

Demonstrate Command of Grammar	CC.4.L.1
Use Prepositional Phrases	CC.4.L.1.e
Use Knowledge of Conventions	CC.4.L.3

## Study a Model

**Read the Personal Narrative** Anthology page 484

Read aloud the prompt on **Student eEdition page 484**. Have students read the model silently or in pairs. Then have volunteers read aloud the notes next to the student sample and identify the first lines that capture the reader's interest and the beginning, middle, and ending of the narrative.

## Review the Trait: Voice

Display and read aloud **eVisual 7.32**. Then have students find examples of personal voice in the model. Ask: *Which sentences or phrases sound personal, like the way a young writer might think, talk, and feel?* Underline the words and phrases students identify.



### Writing Trait: Voice

Writing with effective voice

- sounds natural when read aloud, like the way the writer would talk
- uses realistic dialogue, expressions, idioms, and detail words
- sticks with one point of view.

 [NGReach.com](http://NGReach.com) Voice: eVisual 7.32



**INTERACTIVE WHITEBOARD TIP:** Write volunteers' examples of voice on the whiteboard.

## Prewrite

**Choose a Topic** Anthology page 484

Have students reread the prompt. Ask questions such as: *What are some examples of places or situations involving speed?* Then unpack the prompt and begin completing a RAFT.

**Role:** Yourself

**Audience:** Your teacher and classmates

**Form:** Personal narrative

Have students read step 1 on **Anthology** page 485. Then have students talk with partners to choose an experience to complete a RAFT.

**Gather Information** Anthology page 485

Ask a volunteer to read step 2. Then have students brainstorm *who, what, when, where, and why* questions about their experiences. Explain that asking questions will help students recall details that will make their narratives more interesting: *When writing a personal narrative, tell your reader when the experience occurred, where you were, whom you were with, what was said, what happened, and why you responded the way you did.*

**Get Organized** Anthology page 485

Have a volunteer read step 3 and the sample comparison chart. Ask: *If you learned something from your experience, in which column would you write that detail?* (right) Have students create a comparison chart or other kind of chart to help them organize their ideas for their narratives.

Writing Project

## Write About Yourself

### Write a Personal Narrative

Tell about an experience that changed the way you thought about “fast.” You and your classmates will collect your stories in a book called *How Fast Is Fast?*



### Study a Model

A personal narrative is a true story about something important. Read Stacey’s story about her sister’s race.

#### My Sister, the Turtle

by Stacey Allen

My sister Alyssa should never have been a runner. She’s got such short legs! But she always loved to run.

In middle school, **Alyssa joined the track team.** She was so slow, even her friends called her “Turtle.”

“Why don’t you quit?” I asked.

“Because I’m going to get better,” she told me.

At her first track meet, Alyssa was going to run the 100-meter dash. I almost stayed home. I didn’t want to see her lose.

The race began. Alyssa was the last one off the starting blocks. But then she started to pass the other runners.

The Turtle came in third. As for me, **I learned that you should never give up doing what you love.**

The first lines capture the reader’s interest.

The **beginning** tells what the experience is all about.

The **middle** gives details to help readers understand the experience.

The **ending** tells why the experience was important.

### Prewrite

1. **Choose a Topic** What experience will you write about? Talk with a partner to choose one.

#### Language Frames

##### Tell Your Ideas

- One of my favorite memories is \_\_\_\_\_.
- I once knew someone who \_\_\_\_\_.
- I never knew what \_\_\_\_\_ meant until \_\_\_\_\_.

##### Respond to Ideas

- Tell me why \_\_\_\_\_ was important to you.
- \_\_\_\_\_ sounds interesting. I’d like to read about it because \_\_\_\_\_.
- I’m not sure \_\_\_\_\_ would make a good story. Tell me more.

2. **Gather Information** Recall the details about where and when your event took place. Tell who was involved. Write down how you felt about what happened.
3. **Get Organized** Use a chart or map to help you organize your details. Stacey used a comparison chart to show how her feelings changed.

#### Comparison Chart

Before the Race	During the Race	After the Race
I thought Alyssa wasn’t a good runner.	I didn’t want to go to the race.	Alyssa was fast!

### Draft

Use your chart and details to write your draft. Tell what happened and how the experience affected you. Think about using dialogue to make the story more interesting.

## Draft

### Write Ideas Anthology page 485

Invite a volunteer to read the instructions aloud.

Explain how to turn a comparison chart into a personal narrative: *You can decide the best way to organize your narrative. For example, you could write your narrative in three parts: Beginning, Middle, Ending, following the Before, During, and After order used in your comparison chart. Or, you might find it more interesting to start out with an exciting sentence telling the end result or what you realized after the experience. Then, you could tell the events in order.*

Remind students to check their drafts to make sure they have included all the information from their charts.

Suggest that students choose words that express their natural voice—words that sound the way they think and talk—as they draft: *Your writing should be clear and easy to understand, but it is okay to use some slang and other personal expressions to make your narrative sound like your own personal way of speaking.*

See **Differentiate**

## Differentiate

### EL English Learners

**ISSUE** Students lack the vocabulary to describe their experiences in words.

**STRATEGY** Allow students to write their narratives in their first language and then use an online translator to translate them into English. Have students read their English versions aloud with you. Then have students create a final draft of their narratives in English, illustrate them, and display them side-by-side with the native-language version of their narratives in the classroom.



## Daily Language Arts

### Daily Spelling and Word Work ✓

Practice pages T477k–T477l

### Daily Grammar ✓

Use pages T477m–T477n to teach prepositions that show location, time, and direction. Review **Anthology** page 483 with students, and have them find prepositional phrases in “The Moon Over Star” on **Anthology** pages 461–474.

### Daily Writing Skills ✓

Use pages T477o–T477p to review the Daily Writing Skill with students. Then discuss the point of view used in “The Moon Over Star” on **Anthology** pages 461–474 (first person).

## Revise

### Read, Retell, Respond **Anthology** page 486

Read aloud step 1 on **Anthology** page 486. Have partners take turns reading their narratives to each other and then retelling what they have heard. Then have them hold peer conferences to aid in revising. Model how to offer feedback using the sample personal narrative: *The dialogue sounds natural, but I would add more details and personal expressions to give the writing character and to add more of the writer’s voice to the narrative.*

### Make Changes **Anthology** page 486

Guide students through the instructions and sample changes on **Anthology** page 486. Ask volunteers to explain why each change improves the narrative: *How does replacing “Could you please answer some questions?” with “Why don’t you quit?” I asked make the narrative more interesting and natural sounding?* (Possible responses: It gives the writing a natural voice; it makes the writing sound more like the way people talk in real life.)

Write the following line and ask students how it could be revised to make it sound like the natural voice of a person their age:

I greeted her and asked her if she had enjoyed the concert.

Ask: *Does this sentence sound the way you’ve heard other people your age talk? Does it sound like something you would say when telling a friend about something that happened to you? How would you rewrite this sentence to make it sound like your own voice?*

(Possible responses: “Hey, what’s up? Did you like the show?” “Hi! What did you think of the concert? Was it awesome?”)

Have students use Revising Marks to improve their drafts. Remind them to focus on using their own voice in their writing and to check that their narratives maintain a first-person point of view throughout.

See **Differentiate**

## Edit and Proofread

### Check the Narrative **Anthology** page 487

Read aloud the instructions on page 487. Have students check their grammar and spelling, focusing on maintaining the correct point of view (first person) and correctly using prepositional phrases with *above*, *between*, *during*, and *through*. Point out the Grammar Tip on the page. Remind students to check the spelling of difficult words and to make necessary changes to their drafts.

## Differentiate

### BL Below Level

**ISSUE** Students are unable to revise or edit their narratives.

**STRATEGY** Hold individual conferences with students. Read students’ narratives aloud with them and discuss needed changes and ideas for improvements. As changes are made, read the revised narratives aloud again, noting the improvements as you read.

### AL Above Level

**ISSUE** Students satisfy only the minimum requirements for the assignment (writing basic factual accounts of their experiences without interesting details or engaging voice).

**STRATEGY** Challenge students to compete to see who can include the most details, descriptions, dialogue, and expressions in their narratives.

Writing Project, continued

Revise

1. **Read, Retell, Respond** Read your draft aloud to a partner. Your partner listens and then retells the story. Next, talk about ways to improve your writing.

Language Frames	
<b>Retell</b> • You told about a time when _____. • At first, you felt _____. Later, you felt _____. • The experience was important to you because _____.	<b>Make Suggestions</b> • I can't really picture _____. • Maybe you could say more about how you felt about _____. • Some of the sentences don't sound like you. One example is _____.

2. **Make Changes** Think about your draft and your partner's suggestions. Then use the revising marks on page 585 to mark your changes.

- Could dialogue make your story more interesting? See if there are places you could add some.

"Why don't you quit?" I asked.  
 Could you please answer some questions?

- Does your writing sound like you? Make sure you've used your own voice.

She was so slow, even her friends called her "Turtle."  
 Alyssa joined the track team. She wasn't a fast runner.

Edit and Proofread

Work with a partner to edit and proofread your personal narrative. Be sure your sentences have meaningful details. Use the marks on page 585 to show your changes.

Grammar Tip

Use prepositional phrases to add details. Some common prepositions are *above, between, during, and through*.

Publish

1. **On Your Own** Make a final copy of your personal narrative. Choose a way to share it with your classmates. You can read it aloud, or you can have someone videotape you telling it.

Presentation Tips	
If you are the speaker...	If you are the listener...
Use gestures to emphasize important parts of your story.	Think about why the writer chose to tell about this event.
If you are retelling your personal narrative, be sure to present events in the right order.	Decide what message the writer is trying to share through this narrative.

2. **In a Group** Collect all of the personal narratives from your class. Bind them into a book called *How Fast Is Fast?* Share the book with friends. You could also choose to videotape your narratives. If you do, include photographs from the real events.



Anthology pages 486–487

Publish

On Your Own Anthology page 487

Have students write final drafts of their personal narratives. Instruct students to publish their narratives as they choose, such as by making a poster display with their text and illustrations, or by writing the narrative as a letter to a friend or family member. Students may also wish to create illustrations or bring in photographs to accompany their narratives.

If students would like to read their narratives to the class, have them review the Presentation Tips on **Anthology** page 487.

Use the **Writing Rubric** to assess each student's personal narrative.

In a Group Anthology page 487

Publish students' writing as a group by printing their narratives on same-sized pages to bind into a class book or magazine. Encourage students to create illustrations or bring in photographs to accompany their narratives. Display the class book or magazine in a location where students can read one another's narratives.

Writing Rubric

Score Point	Ideas	Organization	Voice	Word Choice	Fluency	Conventions	Presentation
4	• The writing has a clear focus and purpose. • Details are accurate and relevant, showing in-depth knowledge of the topic. • Most of the writing conveys a message that is both accurate and relevant to the audience's knowledge of the topic.	• The writing has a clear structure that suits the writer's purpose. • All content is relevant to the audience and logically organized. • Most of the writing has a clear structure that suits the audience and is logically organized.	• The writing has a unique voice. • The writer's tone is mostly appropriate for the audience and purpose. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• Appropriate words were chosen to convey the writer's message. • Language used is appropriate for the audience and purpose. • Many appropriate words were chosen to convey the writer's message. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• All sentences are used and have appropriate transitions. • When read aloud, the writing sounds like a story. • Most sentences are effective and rhythmic.	• The writing has only a few minor errors in punctuation, grammar, usage, and spelling. • Most of the writing has only a few minor errors in punctuation, grammar, usage, and spelling.	• The text is presented in an orderly way, and the writer conveys the message. • Visuals are appropriate and enhance the meaning. • Most of the text is easy to read and effectively supports the message.
3	• The writing has a clear focus and purpose. • Details are accurate and relevant, showing in-depth knowledge of the topic. • Most of the writing conveys a message that is both accurate and relevant to the audience's knowledge of the topic.	• The writing has a clear structure that suits the writer's purpose. • All content is relevant to the audience and logically organized. • Most of the writing has a clear structure that suits the audience and is logically organized.	• The writing has a unique voice. • The writer's tone is mostly appropriate for the audience and purpose. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• Appropriate words were chosen to convey the writer's message. • Language used is appropriate for the audience and purpose. • Many appropriate words were chosen to convey the writer's message. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• All sentences are used and have appropriate transitions. • When read aloud, the writing sounds like a story. • Most sentences are effective and rhythmic.	• The writing has only a few minor errors in punctuation, grammar, usage, and spelling. • Most of the writing has only a few minor errors in punctuation, grammar, usage, and spelling.	• The text is presented in an orderly way, and the writer conveys the message. • Visuals are appropriate and enhance the meaning. • Most of the text is easy to read and effectively supports the message.
2	• The writing has a clear focus and purpose. • Details are accurate and relevant, showing in-depth knowledge of the topic. • Most of the writing conveys a message that is both accurate and relevant to the audience's knowledge of the topic.	• The writing has a clear structure that suits the writer's purpose. • All content is relevant to the audience and logically organized. • Most of the writing has a clear structure that suits the audience and is logically organized.	• The writing has a unique voice. • The writer's tone is mostly appropriate for the audience and purpose. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• Appropriate words were chosen to convey the writer's message. • Language used is appropriate for the audience and purpose. • Many appropriate words were chosen to convey the writer's message. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• All sentences are used and have appropriate transitions. • When read aloud, the writing sounds like a story. • Most sentences are effective and rhythmic.	• The writing has only a few minor errors in punctuation, grammar, usage, and spelling. • Most of the writing has only a few minor errors in punctuation, grammar, usage, and spelling.	• The text is presented in an orderly way, and the writer conveys the message. • Visuals are appropriate and enhance the meaning. • Most of the text is easy to read and effectively supports the message.
1	• The writing does not have a clear focus and purpose. • Details are not relevant, showing little or no knowledge of the topic. • Most of the writing conveys a message that is both accurate and relevant to the audience's knowledge of the topic.	• The writing has a clear structure that suits the writer's purpose. • All content is relevant to the audience and logically organized. • Most of the writing has a clear structure that suits the audience and is logically organized.	• The writing has a unique voice. • The writer's tone is mostly appropriate for the audience and purpose. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• Appropriate words were chosen to convey the writer's message. • Language used is appropriate for the audience and purpose. • Many appropriate words were chosen to convey the writer's message. • Most of the writing has a unique voice and tone that is mostly appropriate for the audience and purpose.	• All sentences are used and have appropriate transitions. • When read aloud, the writing sounds like a story. • Most sentences are effective and rhythmic.	• The writing has only a few minor errors in punctuation, grammar, usage, and spelling. • Most of the writing has only a few minor errors in punctuation, grammar, usage, and spelling.	• The text is presented in an orderly way, and the writer conveys the message. • Visuals are appropriate and enhance the meaning. • Most of the text is easy to read and effectively supports the message.

# Week 4 Assessment & Reteaching

= TESTED

## Assess

### OBJECTIVES

### Reading

- Explain Text Structure: Compare and Contrast; Draw Conclusions to Comprehend Text; Explain Concepts in Text; Explain Author's Uses of Reasons and Evidence; Comprehend Plot; Form Generalizations; Understand Points of View; Compare and Contrast Accounts**

### ASSESSMENTS

#### Reading Comprehension Test

Directions: Read the letter and the handbook. Then answer the questions about them.

Dear Uncle Bill:

The Space Museum was amazing! I would love to see the real thing, but I have never seen a good rocket exhibit. At the park, we had a great room and walked in from the Earth room and...

**Denny Olivas: The Making of an Astronaut**

When Denny was born, his father was in space. He worked for the aerospace company that built the space shuttle. Denny's father was an astronaut. He was the first astronaut to fly on the space shuttle. He was the first astronaut to fly on the space shuttle...

**Checklist**

- Which text best supports the opinion that the path to becoming an astronaut is not easy?
  - Denny had to work for a long time.
  - Denny was excited by the idea of being part of such a big team.
  - Denny applied to be an astronaut one time before he was accepted.
  - Denny knew that many people had worked on the rocket together.
- Which of these supports the opinion that Denny "the reward was worth the effort"?
  - Denny had a great time and did experiments.
  - Denny knew that he was good at being an astronaut.
  - Denny kept his shirt up each time he was turned down.
  - Denny went on a space walk and rode a shuttle into space.

A7.22

#### Reading Comprehension Test

Directions: Read the questions. Use the dictionary entries to choose the best answer.

hand: **hand** noun 1 a part of the body 2 a pointer that moves to different numbers on a clock or watch 3 a player's cards or cards in a card game

grade: **grade** noun 1 year in school 2 a letter or number that shows how well you have done some work 3 the slope of the ground with air to give a letter or number to show how well someone worked

**Checklist**

- Which meaning of **hand** is used in this sentence? "The waiter held out the bill to her."
  - meaning 1
  - meaning 2
  - meaning 3
  - meaning 4
- Which meaning of **grade** is used in this sentence? "I received a good grade on my math test."
  - meaning 1
  - meaning 2
  - meaning 3
  - meaning 4

A7.31

#### Reading Strategy Assessment

Directions: Read the questions. Use the dictionary entries to choose the best answer.

**Checklist**

Part and Member	Make Connections	Visualize
4 2 1 1	4 2 1 1	4 2 1 1
1. I understand the main idea and the important details. I know what the author is trying to say.	1. I understand the main idea and the important details. I know what the author is trying to say.	1. I understand the main idea and the important details. I know what the author is trying to say.
2. I understand the main idea and the important details. I know what the author is trying to say.	2. I understand the main idea and the important details. I know what the author is trying to say.	2. I understand the main idea and the important details. I know what the author is trying to say.
3. I understand the main idea and the important details. I know what the author is trying to say.	3. I understand the main idea and the important details. I know what the author is trying to say.	3. I understand the main idea and the important details. I know what the author is trying to say.
4. I understand the main idea and the important details. I know what the author is trying to say.	4. I understand the main idea and the important details. I know what the author is trying to say.	4. I understand the main idea and the important details. I know what the author is trying to say.

S67.30

**Reading Comprehension Unit Test**  
A7.22–A7.29

**Reading Strategy Assessment**  
SG7.30–SG7.31

### Fluency

- Phrasing**
- Accuracy and Rate**

#### Oral Reading Assessment

What would you think if you suddenly came across bright objects in the night sky? Would you be afraid or would you want to learn more about it? People have always wondered about bright objects in the sky. In ancient times, people watched the sky carefully. They noticed that some lights appeared suddenly and had what looked like long tails. People didn't know what to think of these objects that didn't move regularly through the sky like the stars, the moon, and the planets.

Today, we understand more about these strange objects. We call them comets. They are huge "dirty snowballs" made of dust and ice. When a comet passes by Earth, it makes a trail of glowing material that looks like a long tail. The tail is made of dust and gas. The tail is made of dust and gas and can stretch for millions of miles.

How long will you see a comet? It will only be visible in the night sky if you see it on the right night. It might be seen for a few days or a few weeks. Then you can look up information about it. You might even see the same comet later in your lifetime, and the next time, you won't be so surprised.

A7.1

#### Oral Reading Assessment

Grade	4	5	6	7	8	9	10	11
Accuracy (%)	70	75	80	85	90	95	98	100
Fluency (wpm)	115	120	125	130	135	140	145	150
Comprehension (%)	70	75	80	85	90	95	98	100

A7.2

#### Oral Reading Assessment

Directions: Read the questions. Use the dictionary entries to choose the best answer.

**Checklist**

Code	Score	4	3	2	1
1. I understand the main idea and the important details. I know what the author is trying to say.	4	4	3	2	1
2. I understand the main idea and the important details. I know what the author is trying to say.	3	4	3	2	1
3. I understand the main idea and the important details. I know what the author is trying to say.	2	4	3	2	1
4. I understand the main idea and the important details. I know what the author is trying to say.	1	4	3	2	1

A7.3

**Oral Reading Assessment**  
A7.1–A7.3

*Use these passages throughout Unit 7. Work with Below Level students this week.*

### Vocabulary and Spelling

- Use Domain-Specific Words**
- Use Academic Words**
- Use Context/Roots to Determine Word Meanings**
- Spell Multisyllabic Words with VCCV, VCCCV Patterns**
- Use Commonly Misspelled Words Correctly**

#### Vocabulary Test

Directions: Read the questions. Use the chart to choose the best answer.

Word	Origin	Meaning	Example
jeep	Creek	fast	jeep
four	Creek	break	necessary
two	Creek	the	hospitality
five	Latin	ten	decimal

**Checklist**

- What does **decade** most likely mean?
  - She was only 16 years old but had good ideas.
  - He had only 16 years old but had good ideas.
  - Most doctors have a lot about **decade**.
- What does **hand** most likely mean?
  - research
  - mean parents
  - the study of life
  - medical instruments
- What does **graduation** most likely mean?
  - get owners
  - bad weather
  - spare needs
  - people walking
- What does **decade** most likely mean?
  - ten years
  - medicine
  - long time
  - great care

A7.30

#### Vocabulary Test

Directions: Read the questions. Use the dictionary entries to choose the best answer.

**hand** noun 1 a part of the body 2 a pointer that moves to different numbers on a clock or watch 3 a player's cards or cards in a card game

**grade** noun 1 year in school 2 a letter or number that shows how well you have done some work 3 the slope of the ground with air to give a letter or number to show how well someone worked

**Checklist**

- Which meaning of **hand** is used in this sentence? "The waiter held out the bill to her."
  - meaning 1
  - meaning 2
  - meaning 3
  - meaning 4
- Which meaning of **grade** is used in this sentence? "I received a good grade on my math test."
  - meaning 1
  - meaning 2
  - meaning 3
  - meaning 4

A7.31

#### Spelling Words

Use these words and sentences for the weekly Spelling Pretest and Spelling Test.

**Multisyllabic Words with VCCV, VCCCV Patterns**

- altitude: What is the highest **altitude** above Earth that the rocket can reach?
- astronomy: Since you are interested in stars and planets, you should study **astronomy**.
- calculate: How do scientists **calculate** the distance between a star and Earth?
- commitment: My friend made a **commitment** to do a science project with me, but he didn't keep his promise.
- constellation: Is that pattern of bright stars the **constellation** Orion?
- constitute: Some workers **constitute** the crew on the ground, and others make up the crew in the spacecraft.
- emblem: The Space Club badge looks like our school **emblem**.
- mechanic: The **mechanic** repaired a broken part on the shuttle.
- packet: The astronaut opened a **packet** of chili bags of food.
- pursuit: The chase is really exciting because a space monitor is in **pursuit** of the spacecraft.
- restrain: During the moon landing, did you **restrain** your excitement, or did you **restrain** yourself?
- restrain: The feeling, or **sensation**, of being on the moon must be amazing.
- sliskering: The rocket is finished, so we can stop **sliskering** with it and just leave it alone.
- turbulent: The launch was cancelled because of violent, **turbulent** weather.
- vibration: When the rocket blasted off, it felt a **buzzing vibration**.

**Words Often Misspelled**

- show: The moon **show** like a gleaming pearl.
- shown: I have **shown** my photo to everyone I know, and they all reacted my smile!

A7.41

**Vocabulary Unit Test**  
A7.30–A7.32

**Spelling Pretest/Spelling Test**  
T477k

### Grammar and Writing

- Use Adverbs and Adjectives**
- Use Comparison Adverbs**
- Use Relative Adverbs**
- Use Prepositions**
- Use Prepositional Phrases**
- Maintain Point of View**

#### Writing, Revising, and Editing Test

Directions: Read the paragraph. Then answer the questions.

I had finished reading a book about a circus chimp named fish who usually acts silly. Then he got serious when he went on a dangerous adventure. The chimp had to fly a rocket ship. He brought two other chimps along. They landed on a strange planet. They made it go around the planet. Then they returned to Earth. It was an entertaining book?

**Checklist**

- Choose the answer that goes in Blank 1.
  - last
  - was
  - becomes
  - suddenly
- Choose the answer that goes in Blank 2.
  - an
  - with
  - was
  - after
- Choose the answer that goes in Blank 3.
  - of
  - with
  - during
  - through
- Choose the answer that goes in Blank 4.
  - why
  - when
  - where
  - during

A7.33

#### Writing, Revising, and Editing Test

Directions: Read the paragraph. Then answer the questions.

Many North Carolina home plates say "First in Flight." That's because the brothers Orville and Wilbur Wright first flew an airplane successfully there. It took off from the town of Kitty Hawk, near the coast. The wind helped blow the plane near the coast. The Wright brothers knew that a plane takes off easier into a breeze. The brothers had worked very hard to design and build their airplane. On December 17, 1903, they were ready to launch their airplane. It flew only about 40 yards that day, but it was the start of the airplane age!

**Checklist**

- What is the correct tag to write sentence 27?
  - That's because the brothers Orville and Wilbur Wright first flew an airplane successfully there.
  - that's because the brothers Orville and Wilbur Wright first flew an airplane successfully there.
  - They know that the brothers Orville and Wilbur Wright first flew an airplane successfully there.
  - Correct as is.
- What is the correct tag to write sentence 28?
  - It took off from the town of Kitty Hawk, near the coast.
  - It took off from the town of Kitty Hawk, near the coast.
  - Correct as is.
  - Correct as is.

A7.34

#### Writing Rubric

Score	Content	Organization	Style	Conventions
4	Clearly states the main purpose and includes all relevant information. Provides a strong opinion and supports it with relevant and convincing reasons and details. Uses effective techniques to organize ideas and information.	Effectively organizes ideas and information. Uses an effective opening and closing. Uses effective transitions to connect ideas and information.	Uses a variety of sentence structures and word choices to create a strong and persuasive voice. Uses effective techniques to create a strong and persuasive voice.	Writes clearly and correctly. Uses correct grammar and punctuation. Writes clearly and correctly. Uses correct grammar and punctuation.
3	States the main purpose and includes most relevant information. Provides a strong opinion and supports it with relevant reasons and details. Uses effective techniques to organize ideas and information.	Organizes ideas and information. Uses an opening and closing. Uses transitions to connect ideas and information.	Uses a variety of sentence structures and word choices to create a strong and persuasive voice. Uses effective techniques to create a strong and persuasive voice.	Writes clearly and correctly. Uses correct grammar and punctuation. Writes clearly and correctly. Uses correct grammar and punctuation.
2	States the main purpose and includes some relevant information. Provides a strong opinion and supports it with reasons and details. Uses effective techniques to organize ideas and information.	Organizes ideas and information. Uses an opening and closing. Uses transitions to connect ideas and information.	Uses a variety of sentence structures and word choices to create a strong and persuasive voice. Uses effective techniques to create a strong and persuasive voice.	Writes clearly and correctly. Uses correct grammar and punctuation. Writes clearly and correctly. Uses correct grammar and punctuation.
1	States the main purpose and includes some relevant information. Provides a strong opinion and supports it with reasons and details. Uses effective techniques to organize ideas and information.	Organizes ideas and information. Uses an opening and closing. Uses transitions to connect ideas and information.	Uses a variety of sentence structures and word choices to create a strong and persuasive voice. Uses effective techniques to create a strong and persuasive voice.	Writes clearly and correctly. Uses correct grammar and punctuation. Writes clearly and correctly. Uses correct grammar and punctuation.
0	Does not clearly state the main purpose and does not include relevant information. Does not provide a strong opinion and does not support it with reasons and details. Does not use effective techniques to organize ideas and information.	Does not organize ideas and information. Does not use an opening and closing. Does not use transitions to connect ideas and information.	Does not use a variety of sentence structures and word choices to create a strong and persuasive voice. Does not use effective techniques to create a strong and persuasive voice.	Does not write clearly and correctly. Does not use correct grammar and punctuation. Does not write clearly and correctly. Does not use correct grammar and punctuation.

A7.41

**Writing, Revising, and Editing Unit Test**  
A7.33–A7.36

**Writing Rubric**  
A7.41

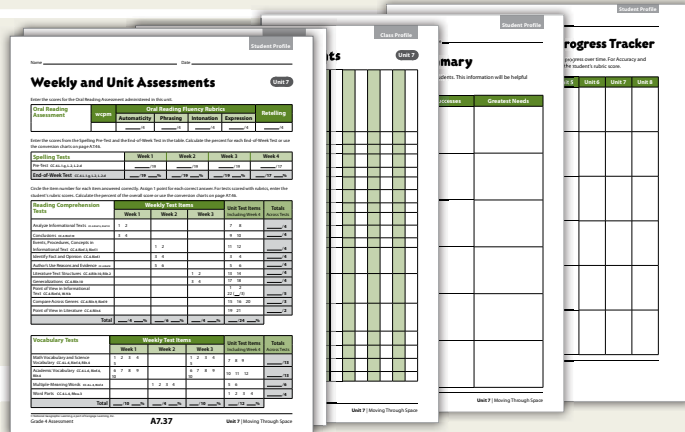




ExamView®

# Reteach and Practice

## REPORTS



### PRINT & ONLINE Report Forms

- Student Profile: Weekly and Unit Assessments** A7.37–A7.38
- Class Profile: Weekly and Unit Assessments** A7.39
- Student Profile: Strengths and Needs** A7.40
- Student Profile: Oral Reading Progress Tracker** A1.3

## RESOURCES AND ROUTINES

### Reading

#### RETEACH

- Compare Points of View: Reteaching Master** RT7.10
- Compare and Contrast Accounts: Reteaching Master** RT7.11
- Synthesize: Reteaching Master** RT7.12

#### ADDITIONAL PRACTICE

Comprehension Coach [NGReach.com](https://www.ngreach.com)

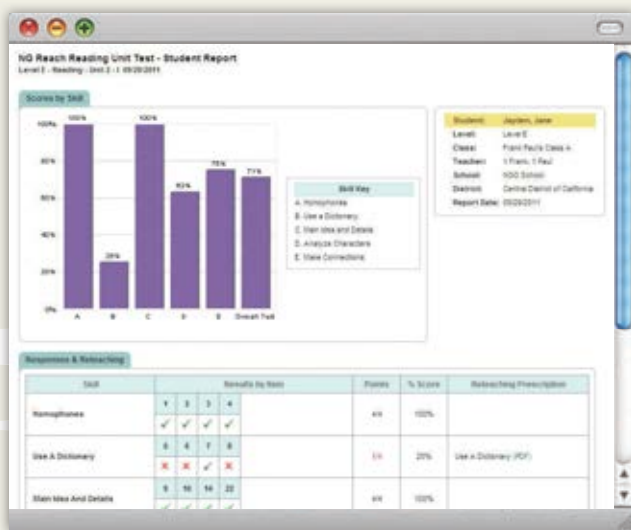
### Fluency

#### RETEACH

Fluency Routines, page BP33

#### ADDITIONAL PRACTICE

Comprehension Coach [NGReach.com](https://www.ngreach.com)



eAssessment™

### ONLINE ONLY Automated Reports

- Student Profile: Weekly and Unit Tests**
- Class Profile: Weekly and Unit Tests**
- Standards Summary Report**

### Vocabulary and Spelling

#### RETEACH

- Vocabulary Routine 6**, page BP40
- Spelling and Word Work Routine**, page BP52

#### ADDITIONAL PRACTICE

Vocabulary Games [NGReach.com](https://www.ngreach.com)  
Daily Spelling Practice, pages T477k–T477l

### Grammar and Writing

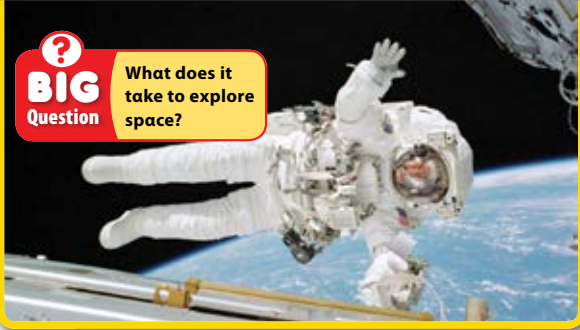
#### RETEACH

- Adverbs: Anthology Handbook**, page 609
- Prepositions: Anthology Handbook**, page 610
- Writing: Reteaching Writing Routine**, page BP51
- Writing Trait: Voice: Reteaching Master** RT7.13

#### ADDITIONAL PRACTICE

More Grammar Practice PM7.31  
Daily Writing Skills Practice, pages T477o–T477p

See Weeks 1–3 for additional practice resources.



**Big Question** What does it take to explore space?

**Talk Together**  
In this unit, you found lots of answers to the **Big Question**. Now, make a concept map to discuss the **Big Question** with the class.

**Concept Map**  
What does it take to explore space?  
very fast speed

**Write a Note**  
Use your concept map. Write a note to a friend explaining whether you would like to explore space and why.

488

## Unit 7 Wrap-Up

### Share Your Ideas

Choose one of these ways to share your ideas about the **Big Question**.

**Write It!**

**Write a Story**  
Write a story about a fast-moving creature. How would the creature use speed to do things? Make the plot exciting! Include details about the setting and characters. Illustrate your story.



**Talk About It!**

**Give an Interview**  
Imagine you were the first person on the moon. Give an interview to tell about your experiences. Tell how you felt, what you saw, and what people should know about the moon.


**Do It!**

**Model the Earth, Sun, and Moon**  
With a small group, show how Earth moves around the sun. Then show how the moon revolves around Earth. Give clear, step-by-step instructions so your classmates can follow.



**Write It!**

**Make a Packing List**  
Imagine that the space program asked you to travel to the moon for one week. What would you bring? Make a packing list. Include personal things and tools for your moon study.



489

Anthology  
pages 488–489

## OBJECTIVES

Thematic Connection: Exploring Space  
Review Content

## PROGRAM RESOURCES

PRINT & TECHNOLOGY

Unit Concept Map: Practice Master PM7.1

## Academic Talk

### 1 Talk Together Anthology page 488

Display the Big Question. Read aloud the first paragraph on page 488. Have students revisit their unit concept maps to remind them of their answers to the Big Question. Encourage them to think about their class discussions, the selections in the unit, and the books they read during Small Group Reading. Encourage students to ask each other questions to clarify ideas and to make generalizations about common ideas.

## Writing

### 2 Write a Note Anthology page 488

Read aloud the instructions. Explain that their notes will express their personal opinion, which should be supported with reasons. Have students look back at “Building for Space Travel” on pages 447–451 as they prepare to write their note to get ideas and facts to support their opinions. Remind them to address their note to a friend and to sign their name.

## COMMON CORE STANDARDS

### Writing

Write Over Shorter Time for Specific Tasks and Purposes CC.4.W.10

### Speaking and Listening

Draw on Preparation to Explore Ideas CC.4.SL.1.a

## Unit Projects

### 3 Share Your Ideas Anthology page 489

Students who have chosen the Talk About It project work with a partner, while students working on the Do It Project work in small groups. Have the other students work independently at their desks.

### Write It!



#### Plan

Have students brainstorm a list of events for their fast-moving creature story and put the events in sequence using a time line. If necessary, draw a time line on the board and remind students how to make and use one. Discuss how the time increments on a time line can represent hours, days, weeks, months, or years, depending on the time frame of their story.

#### Write a Story

Have students follow the instructions to write their stories. Encourage them to include descriptive details about the characters and the setting which they can use in illustrations. Ask volunteers to share their stories with the class.

Write Narratives, Using Event Sequences  
Write Over Shorter Time for Specific  
Tasks and Purposes

CC.4.W.3  
CC.4.W.10

### Talk About It!



#### Plan

Ask student pairs to look at the pictures of astronauts and the moon on pages 474 and 479–481. If time allows, have them research other pictures. Allow students to decide who will be the interviewer and who will be the interviewee. Encourage students to use what they have learned as they prepare questions and answers for the interview.

#### Give an Interview

Students pairs should act out an interview scenario. Remind them that questions and answers should relate to the interviewee's feelings, thoughts, and observations about the moon. Student pairs may wish to perform their interview for the class.

Discuss Topics, Building on Others' Ideas and  
Expressing Ideas Clearly  
Pose and Respond to Questions

CC.4.SL.1  
CC.4.SL.1.c

### Do It!



#### MATERIALS

art supplies such as colored markers, modeling clay, cardboard, chenille wire, foam balls of various sizes, tape, glue, etc.

#### Plan

Have students work in small groups to use books and online resources to research the movement of the Earth, sun, and moon. Encourage groups to brainstorm ways to create a three-dimensional model to demonstrate this movement.

#### Model the Earth, Sun, and Moon

Allow students time to create their models with a variety of materials. Have groups demonstrate their model to the class and provide a step-by-step explanation about how their model shows the rotation of Earth, the movement of Earth around the sun, and the movement of the moon around Earth.

Report on a Topic

CC.4.SL.4

### Write It!



#### Plan

Have students review "Building for Space Travel" on pages 447–451 to get ideas about things astronauts need in space. Then lead a class brainstorming session about what a young space traveler would need to pack for a one-week journey to the moon. Ask:

*What kinds of things would be the most important to bring?*

*What could you bring to make yourself more comfortable?*

*What might be fun to take with you to the moon?*

#### Make a Packing List

Have students follow the instructions to create their packing lists. Remind them to include personal items and tools they might need for their study of the moon.

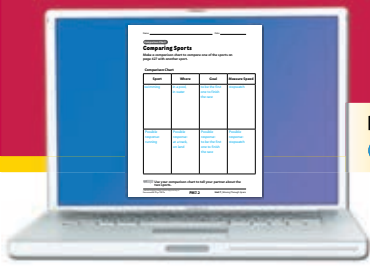
Report on a Topic

CC.4.SL.4

# Unit 7 Reflection

Successful Teaching Moments	Adjustments for Next Year

Additional Notes or Resources



## Contents at a Glance

Practice Masters		Pages
<b>Family Newsletter 7: English and Spanish</b>		
<b>Week 1</b>	<b>Day 1:</b> Unit Concept Map . . . . .	PM7.1
	Comparison Chart . . . . .	PM7.2
	<b>Day 3:</b> Grammar Game . . . . .	PM7.3
	<b>Day 4:</b> Grammar and Writing . . . . .	PM7.4
	<b>Day 5:</b> Test-Taking Strategy Practice . . . . .	PM7.5
	Comparison Chart . . . . .	PM7.6
	Fluency Practice . . . . .	PM7.7
<b>Reteach:</b> Grammar Practice . . . . .	PM7.8	
<b>Week 2</b>	<b>Day 1:</b> Grammar Game . . . . .	PM7.9
	<b>Day 2:</b> Grammar Game . . . . .	PM7.10
	<b>Day 3:</b> Comparison Chart . . . . .	PM7.11
	Grammar Practice . . . . .	PM7.12
	<b>Day 4:</b> Mark-Up Reading . . . . .	PM7.13
	Mark-Up Reading . . . . .	PM7.14
	Grammar and Writing . . . . .	PM7.15
<b>Reteach:</b> Grammar Practice . . . . .	PM7.16	
<b>Week 3</b>	<b>Day 1:</b> Plot Diagram . . . . .	PM7.17
	<b>Day 3:</b> Grammar Game . . . . .	PM7.18
	<b>Day 4:</b> Grammar and Writing . . . . .	PM7.19
	<b>Day 5:</b> Test-Taking Strategy Practice . . . . .	PM7.20
	Plot Diagram . . . . .	PM7.21
	Fluency Practice . . . . .	PM7.22
<b>Reteach:</b> Grammar Practice . . . . .	PM7.23	
<b>Week 4</b>	<b>Day 1:</b> Grammar Game . . . . .	PM7.24
	<b>Day 2:</b> Grammar Game . . . . .	PM7.25
	<b>Day 3:</b> Comparison Chart . . . . .	PM7.26
	Grammar Practice . . . . .	PM7.27
	<b>Day 4:</b> Mark-Up Reading . . . . .	PM7.28
	Mark-Up Reading . . . . .	PM7.29
	Grammar and Writing . . . . .	PM7.30
<b>Reteach:</b> Grammar Practice . . . . .	PM7.31	



# NATIONAL GEOGRAPHIC Reach



## NEWSLETTER

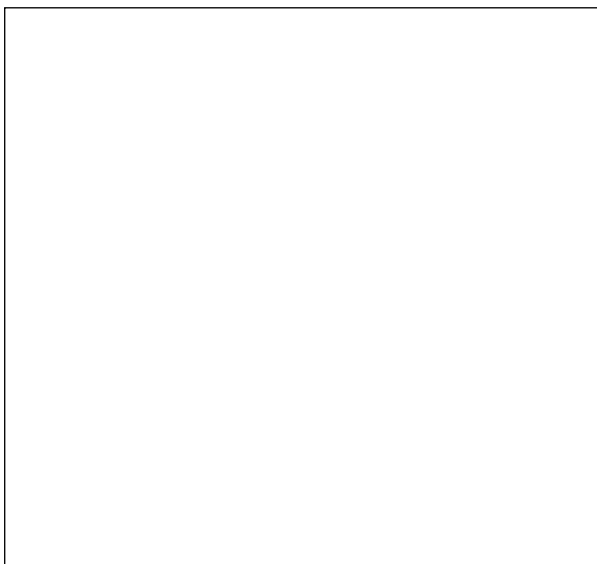
Level E | Unit 7

### Dear Family Member,

“What does it take to explore space?” That is the big question we are asking in this unit. To answer it, we are reading, writing, and talking about solving problems in order to study outer space. Be a part of our exploration! With your student, read the New Words on the next page. Then follow these directions.

### Directions:

1. Talk together about what you can see in the clear night sky. Share what you know. If possible, observe the night sky together. Try to use some of the New Words in your discussion.
2. In the box below, draw a picture of what you see in the clear night sky where you live. Then write about it on the lines at right.
3. Remind your student to bring the completed drawing and notes to class.



### What We're Reading

#### “What’s Faster Than a Speeding Cheetah?”

by Robert E. Wells

The author of this article profiles fast things.

#### “Building for Space Travel”

by Anastasia Suen

This report describes a space station designed by Explorer Constance Adams for future astronauts on their way to Mars.

#### “The Moon Over Star”

by Dianna Hutts Aston

In this story, a girl dreams of becoming an astronaut.

#### “The First Person on the Moon”

This biography highlights Neil Armstrong’s greatest achievement.

**And more!**

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COPY READY



# New Words

## Weeks 1 and 2

accelerate

measure

solve

average

motion

speed

distance

rate

height

scale

## Weeks 3 and 4

astronaut

limit

rotation

capacity

orbit


technology

constant

planet

launch

resistance

Learn and play with words.  [NGReach.com](https://www.NGReach.com)



# NATIONAL GEOGRAPHIC Reach



## BOLETÍN DE NOTICIAS

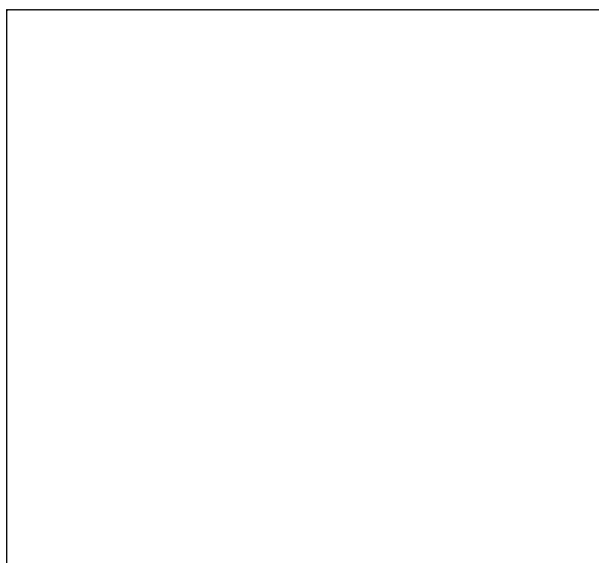
Nivel E | Unidad 7

### Estimado miembro de la familia,

“¿Qué se necesita para explorar el espacio?” Esa es la gran pregunta que estamos explorando en esta unidad. Para responderla, estamos leyendo, escribiendo y hablando acerca de solucionar problemas a fin de estudiar el espacio exterior. ¡Sea parte de nuestra exploración! Con su estudiante, lea las Nuevas Palabras en la siguiente página. Luego siga estas instrucciones.

### Instrucciones:

1. Juntos, conversen acerca de lo que pueden ver en el cielo en una noche clara. Compartan lo que saben. Si es posible, observen juntos el cielo en la noche. Intenten usar algunas de las Nuevas Palabras en su conversación.
2. En el recuadro que aparece más abajo, hagan un dibujo de lo que ven en el cielo durante una noche clara, en el lugar donde viven. Luego, escriban acerca de ello en las líneas de la derecha.
3. Recuerde a su estudiante traer las notas y el dibujo completos a clase.



### Qué estamos leyendo

#### “What’s Faster Than a Speeding Cheetah?”

por Robert E. Wells

El autor de este artículo reseña cosas rápidas.

#### “Building for Space Travel”

por Anastasia Suen

Este informe describe una estación espacial diseñada por la exploradora Constance Adams, para los futuros astronautas en su paso hacia Marte.

#### “The Moon Over Star”

por Dianna Hutts Aston

En este cuento, una niña sueña con convertirse en astronauta.

#### “The First Person on the Moon”

Esta biografía resalta el mayor logro alcanzado por Neil Armstrong.

¡Y más!

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COPY READY





# Nuevas Palabras

## Semanas 1 y 2

accelerate

acelerar

average

promedio

distance

distancia

height

altura

measure

medida

motion

movimiento

rate

velocidad

scale

escala

solve

resolver

speed

velocidad

COPY READY

## Semanas 3 y 4

astronaut

astronauta

capacity

capacidad

constant

constante

launch

lanzar

limit

limitar

orbit

órbita

planet

planeta

resistance

resistencia

rotation

rotación

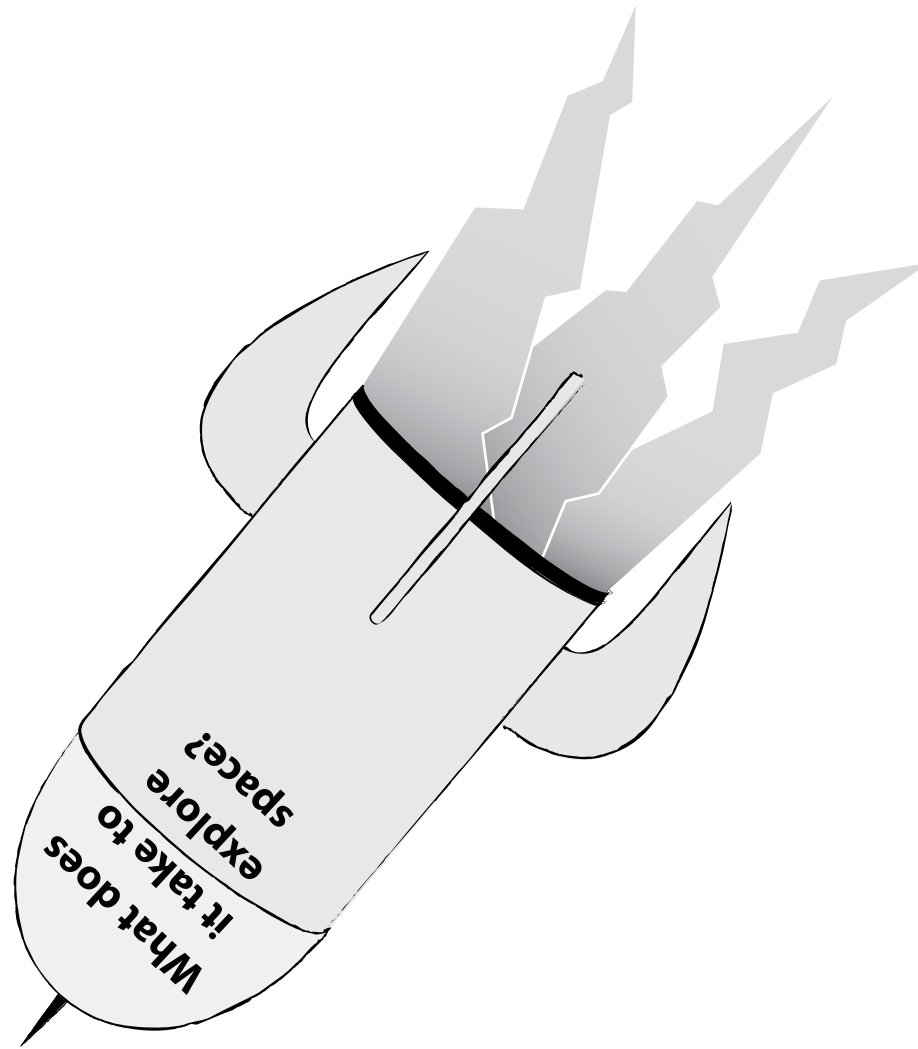
technology

tecnología

Aprenda y juegue con palabras. [NGReach.com](https://www.ngreach.com)

# Moving Through Space

Make a concept map with the answers to the Big Question:  
What does it take to explore space?



COPY READY

Name \_\_\_\_\_ Date \_\_\_\_\_

**Comparison Chart**

# Comparing Sports

Make a comparison chart to compare one of the sports on page 427 with another sport.

## Comparison Chart

Sport	Where	Goal	Measure Speed

 Use your comparison chart to tell your partner about the two sports.

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For use with TE p. T427a

**PM7.2**

Unit 7 | Moving Through Space

COPY READY

**Grammar: Game**

# How It's Done!

Adjectives		Adverbs	
swift	tall	rapidly	extremely
slow	speedy	swiftly	fairly
rapid	sluggish	very	really

Choose adjectives and adverbs from the box to complete the sentences. Follow the order shown in parentheses. Use a variety of adjectives and adverbs!

1. The rocket ship is \_\_\_\_\_ . (adverb, adjective)
2. That falcon flies \_\_\_\_\_ . (adverb, adverb)
3. A person can be \_\_\_\_\_ . (adverb, adjective)
4. Snails are \_\_\_\_\_ . (adverb, adjective)
5. The beam of light travels \_\_\_\_\_ . (adverb, adverb).
6. Cheetahs are \_\_\_\_\_ . (adverb, adjective)
7. This ostrich is \_\_\_\_\_ . (adverb, adjective)
8. The meteoroid zooms \_\_\_\_\_ . (adverb, adverb)

COPY READY

**Grammar: Grammar and Writing**

# Edit and Proofread

Choose the editing and proofreading marks you need to correct the passage. Look for correct usage of:

- adverbs
- adjectives

### Editing and Proofreading Marks

^	Add.
~	Take out.
○ ^	Move to here.
^,	Add comma.
⊙	Add period.

COPY READY

Ella stood <sup>nervously</sup> ~~nervous~~ at the edge of the pool. Every muscle in her body was tensely as she waited for the signal to begin.

“Go!” the coach yelled sudden. She sprang instant into the blue water. Her arms slashed up. They slashed downly. They were like a whirling windmill slicing through the water.

Freestyle was Ella’s best stroke, and she was confidently as she sped through the water. The turn was coming up. She swam energetically, got to the wall, and pushed off hardly. She heard the loudly screams of the crowd, but all her concentration was focused on swimming as fast as she could.

The race was near over. She had a few yards to go. Final she slapped her hand on the edge of the pool. A roar rose quick up from the crowd. She had won, she realized excited!

**Test-Taking Strategy Practice**

# Read All Choices

**Directions:** Read each question about “What’s Faster Than a Speeding Cheetah?” Choose the best answer.

## Sample

**1** Which of the following moves the fastest?

- (A) jet
- (B) cheetah
- (C) falcon
- (D) rocket

**2** The speed of light is one of the few speeds that is \_\_\_\_\_ .

- (A) slower at high altitudes
- (B) not constant
- (C) constant
- (D) faster in space

**3** Why do we have trouble measuring the speeds of animals?

- (A) They do not come with speedometers.
- (B) They are faster than the speed of sound.
- (C) They are hard to see.
- (D) They are faster than the sound of your voice.

 **Tell a partner how you used the strategy to answer the questions.**

**Comparison Chart**

# “What’s Faster Than a Speeding Cheetah?”

Make a comparison chart for “What’s Faster Than a Speeding Cheetah?”

COPY READY

Animal or Object	How it Moves	Fastest Speed	Record
ostrich	runs on two legs	72 km (45 mi) per hour	fastest animal with two legs
cheetah	runs on four legs	113 km (70 mi) per hour	fastest land animal
peregrine falcon			
jet plane			

 Use your comparison chart to tell a partner how the animals and objects are alike and different.

**Fluency Practice**

# “What’s Faster Than a Speeding Cheetah?”

Intonation is the rise and fall in the pitch or tone of your voice as you read aloud. Use this passage to practice reading with proper intonation.

Hold on a minute. There’s something much faster than even 10  
 the fastest meteoroid. It’s something you see all the time. 20

Just push the switch on a flashlight. Instantly, a light beam 31  
 will flash out at the amazing speed of 299,338 kilometers per 42  
 second (186,000 miles per second). 47

That’s thousands of times faster than a meteoroid. At that speed, 58  
 a beam of light could circle Earth more than seven times in one second. 72

Most scientists believe that nothing can travel through space 81  
 faster than light. Who would have thought that the fastest traveling 92  
 thing in the whole universe could come out of something small 103  
 enough to hold in your hand? 109

**From “What’s Faster Than a Speeding Cheetah?” pages 440–441.**

**Intonation**

- 1 Does not change pitch.
- 2 Changes pitch, but does not match content.
- 3 Changes pitch to match some of the content.
- 4 Changes pitch to match all of the content.

**Accuracy and Rate Formula**

Use the formula to measure a reader’s accuracy and rate while reading aloud.

$$\frac{\text{words attempted in one minute}}{\text{number of errors}} = \text{words correct per minute (wcpm)}$$

COPY READY



## Grammar: Reteach

**The Bicycle Race****Grammar Rules: Adverbs**

An **adverb** describes a verb. It can come before or after a verb and tells *how, where, when, or how often/how much*.

- Many adverbs end in *-ly*.
- An adverb can modify an adjective or another adverb.
- Use an adverb instead of an adjective to tell about a verb.
- Never use an adverb after a form of the verb *to be*.

Miguel pedals his bicycle quickly. (How does he pedal?)

Matt sometimes rests. (How often does he rest?)

Denny bikes very slowly. (How slowly?)

Rosa pedals happily.

Rosa is happy to race.

Read the sentences below. Circle the correct word to complete the sentence.

1. Miguel begins the race (eagerly/eager).
2. Rosa races (easy/easily) to the lead.
3. Denny (careful/carefully) steers on the muddy road.
4. All the racers are (fast/fastly).
5. But, Rosa waits (patiently/patient) at the finish line.
6. She is (proudly/proud) that she won.
7. Rosa will coach the other racers (very/much) (happy/happily) for the next race.

 With a partner, discuss the bike race. Take turns using adverbs to describe the different bike riders.

**Grammar: Game**

# Make a Face!

Draw an oval on a separate sheet of paper. With a partner, take turns drawing a space creature's face by adding one feature, such as eyes or antennae, on the separate paper for each turn. Make your space creature as weird or silly as you like.

**Directions:**

1. With your partner, take turns completing the sentences. Add *-er* to the adverb in parentheses or use *more* or *less*.
2. If your partner agrees that your sentence is correct, add one feature to the face. If not, your partner corrects the sentence and adds a feature to the face.
3. When the sentences are complete, your Martian will be, too!

- 
1. The Martians eat \_\_\_\_\_ than pigs. (noisily)
  2. They sleep \_\_\_\_\_ than bears in winter.  
(frequently)
  3. The creatures on Venus move \_\_\_\_\_ than snails.  
(slow)
  4. They jump \_\_\_\_\_ than frogs! (high)
  5. Some creatures on Jupiter fly \_\_\_\_\_ than jets.  
(fast)
  6. Others drift through space \_\_\_\_\_ than swans.  
(gracefully)

**Grammar: Game**

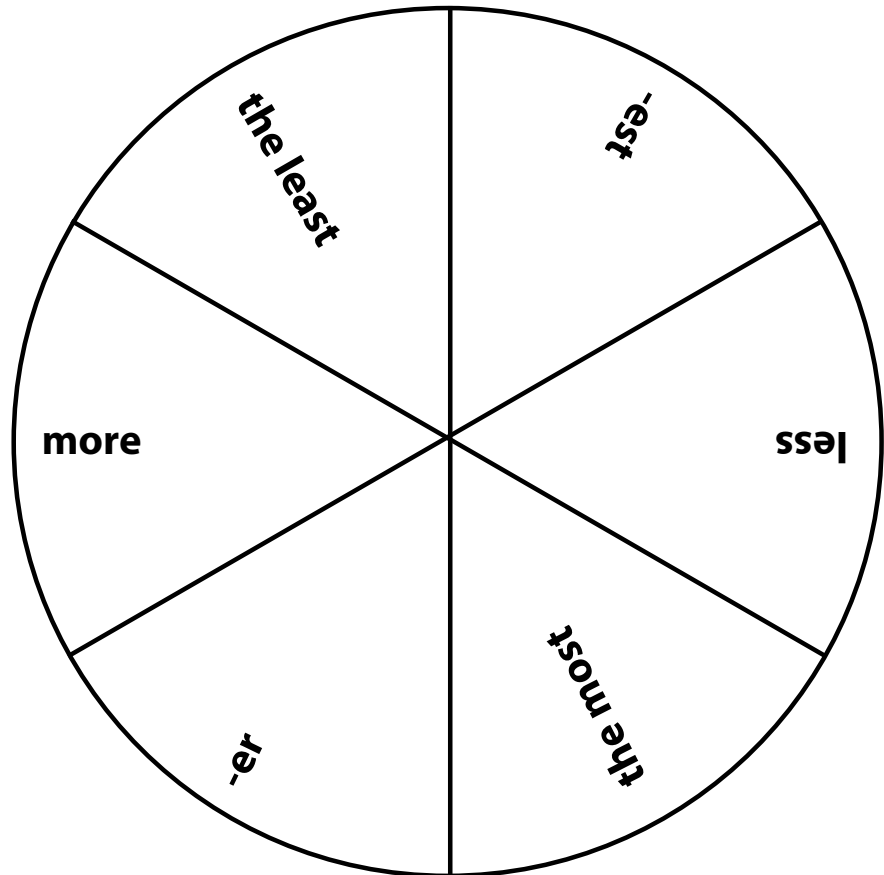
# Match and Make Comparisons

1. Take turns with your partner. Spin the spinner. Look at the letters or words you landed on.
2. Choose an adverb from the box that works with what you landed on. Form a comparison adverb. For example: -est + late = latest.
3. Use your comparison adverb in a sentence.
4. If your partner agrees that your sentence is correct, score 1 point. If not, your partner takes a turn.
5. Continue until all the words in the box have been used correctly to make comparison adverbs. The player with more points at the end is the winner.

bravely
awkwardly
late
politely
quietly
fast

**Make a Spinner**

1. Put a paper clip over the center of the spinner.
2. Touch the point of a pencil on the middle of the wheel and through the loop of the paper clip.
3. Spin the paper clip to make a spinner.




**Comparison Chart**

# Compare Fact and Opinion

Compare facts and opinions in the two selections.

	<b>Facts</b>	<b>Opinions</b>
“What’s Faster Than a Speeding Cheetah?”		A peregrine falcon is magnificent.
“Building for Space Travel”	Constance Adams helped design TransHab.	

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 Take turns with a partner. Ask each other questions about the facts and opinions found in the selections.

## Grammar: Practice

**Exercising in Zero Gravity****Grammar Rules Adverbs**Use **adverbs** to describe and compare actions.

Describe 1 action	soon	carefully	
Compare 2 actions	sooner	more carefully than	less carefully than
Compare more than 2 actions	soonest	the most carefully	the least carefully

Read each sentence. Write the correct form of the adverb on the line.

- Every day I enter the gym sooner than my partner.  
(soon)
- I walk in \_\_\_\_\_ than a gymnast.  
(eagerly)
- I notice that the equipment is attached \_\_\_\_\_ .  
(securely)
- At first, I ran the \_\_\_\_\_ of all the astronauts.  
(quickly)
- If I keep practicing, I may one day run the \_\_\_\_\_ of all.  
(fast)
- Scientists planned TransHab the \_\_\_\_\_ of any gym.  
(carefully)

 **Pantomime an action an astronaut might do in zero gravity. Have your partner describe or compare your action using an adverb. Then switch roles.**

http://www.ngreach.com

# Ask an Astronaut!

My Journal **Ask a Question!** About Me Photo Gallery

**Dear Astronaut Holmer:** I read that space shuttles have bedrooms. What is it like to sleep on a space shuttle? — Lukshmi Patel, India

**Dear Lukshmi,**  
 Sleeping in space felt very strange at first. It felt odd using a sleeping bag tied to the wall! But otherwise we would float around and bump into things. There is still gravity in a spacecraft, but it's a very weak force. Weak gravity means there's no up or down. Once you're used to it, it's fun to sleep in any direction!  
 The light of the Sun also makes sleeping a challenge. We need to sleep eight hours at the end of each work day. However, as the shuttle orbits around Earth, the Sun "rises" every 90 minutes, waking us up too soon. So we wear masks to block out the light while we sleep.



▲ Sometimes astronauts sleep in sleeping bags tied to the walls of the spacecraft.

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### Explanation

Explain how reasons and evidence support the main ideas in the astronaut's answer to Lukshmi:

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**Ask an Astronaut!**

My Journal   Ask a Question!   About Me   Photo Gallery

**Dear Astronaut Jamal Holmer:**  
*We learned that space shuttles have exercise rooms. It has to be hard to exercise without gravity! How do you exercise in space?*  
 — Mr. Fletcher’s fourth-grade class from California

**Dear Class,**  
 Exercising in space is fun and necessary! Imagine what would happen if you never had to walk anywhere or never had to lift heavy objects. Your muscles would get really weak! Luckily, there are plenty of ways to exercise. On the International Space Station, we might use the exercise bike or special equipment that **simulates** lifting weights to keep our muscles strong. Or we might turn somersaults and race from one end of the space station to the other!

▲ Astronauts need to exercise often to keep their muscles strong.

**In Other Words**

**simulates** gives the feeling of

**Explanation**

Explain how reasons and evidence support the main idea in the astronaut’s answer to Mr. Fletcher’s class:

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**Grammar: Grammar and Writing**

# Edit and Proofread

Choose the Editing and Proofreading Marks you need to correct the passage. Look for correct usage of adverbs with the following.

- *-er* and *-est*
- *more/less* and *the most/the least*
- special forms

### Editing and Proofreading Marks

^	Add.
~	Take out.
⬢ ^	Move to here.
^,	Add comma.
Ⓜ	Add period.

Do you ever imagine traveling <sup>faster</sup> ~~fastest~~ than a flash to reach Mars?  
 I have been dreaming about that, but last night I dreamed the most vividly about Mars than I had the night before. In my dream, my rocket ship traveled through space quickly than a real spacecraft. It orbited most well but landed the least gentlest of all the rocket ships arriving on Mars that night.

I stood in a strange landscape. A dust storm blew most fiercely than a blizzard. Huge piles of sand rose higher than a house. Suddenly many small rocks were flying toward me. The one moving the less swiftly of all was coming right at my head. I tried to duck, but I moved more slower than a spoon in molasses. Fortunately, then I woke up. I was exhausted. I had slept more badly than any night in my life!



## Grammar: Reteach

**Hiking Up the Mountain****Grammar Rules: Adverbs**

To compare two actions, add 'er for many adverbs.

This mountain stands taller than that one.

Use *more* or *less* for adverbs ending in 'ly.

That path winds more steeply than the road.

To compare three or more actions, add 'est for many adverbs.

This mountain stands the tallest of all the mountains.

Use *the most* or *the least* for adverbs ending in 'ly.

Max hikes the most eagerly of all his friends.

Special forms:  
well: better, best  
badly: worse, worst

I hike well. She hikes better than I do.

Ana feels badly. Lara feels worse.

**Write the correct word to complete the sentence.**

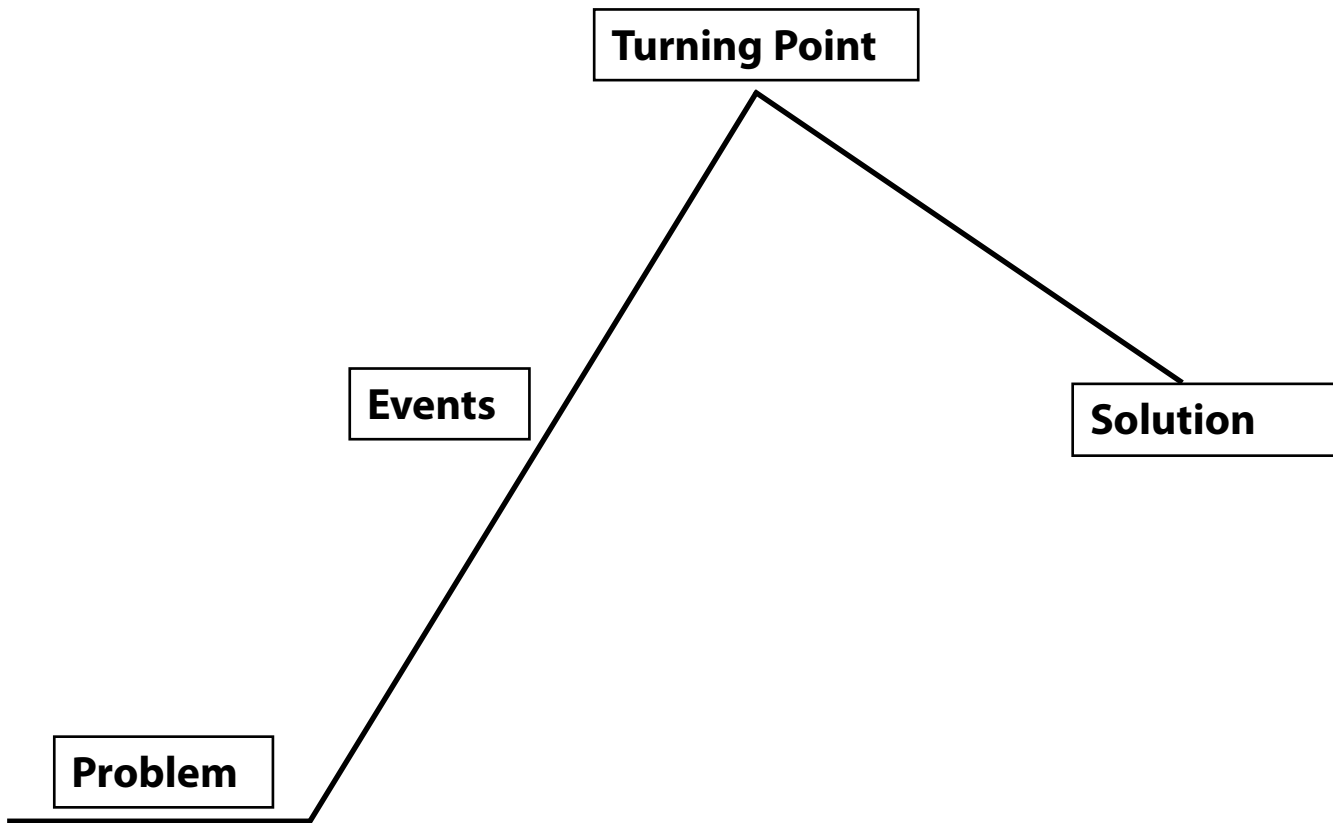
1. Max hikes \_\_\_\_\_ than I hike. (better, best)
2. I climb \_\_\_\_\_ than he does. (high, higher)
3. Ana walks the most \_\_\_\_\_ of all. (slowly, slowliest)
4. Max climbs the \_\_\_\_\_. (more fast, fastest)
5. This hike is \_\_\_\_\_ than the last one! (worst, worse)

 **With a partner, take turns using comparison adverbs to compare hiking to another sport.**

**Plot Diagram**

# Plot of a Story

Make a plot diagram about a favorite story.



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 Use the plot diagram to retell your story to a partner.

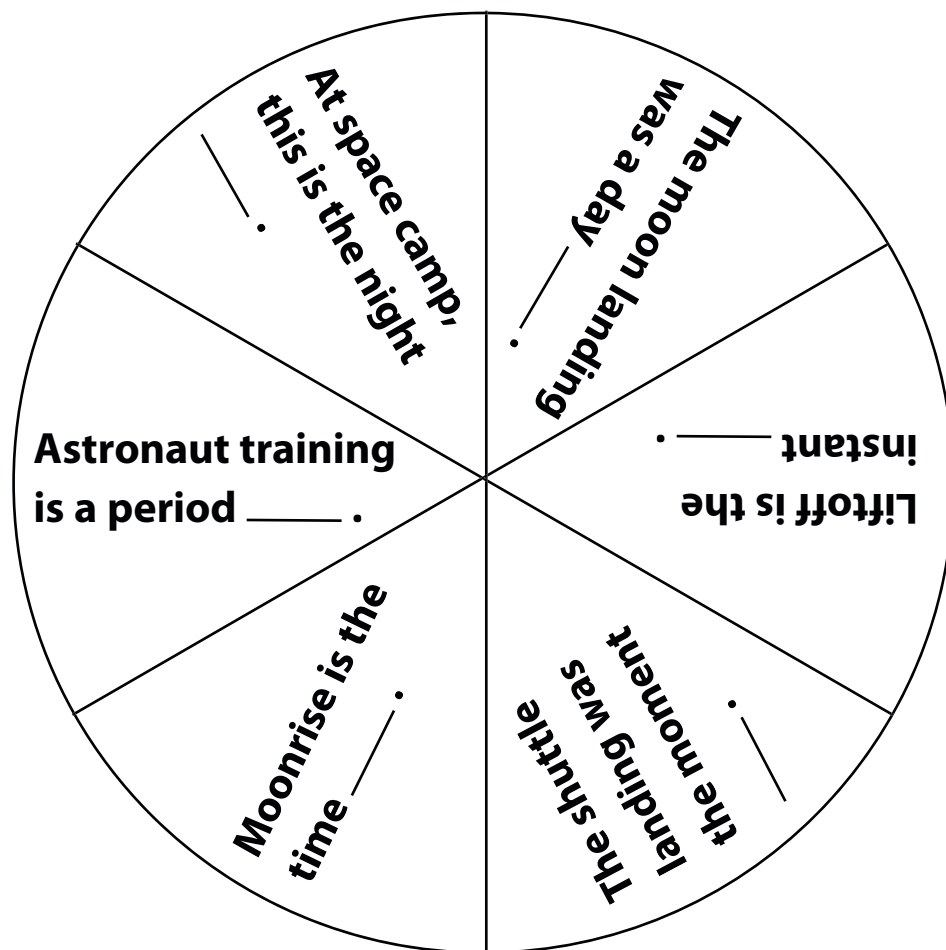
# Relative Adverb Spinner

## Directions:

1. Take turns spinning the spinner.
2. Complete the sentence with a dependent clause that begins with the relative adverb *when*.
3. Play until you have completed all the sentences. Then play another round!

### Make a Spinner

1. Put a paper clip over the center of the spinner.
2. Touch the point of a pencil on the middle of the wheel and through the loop of the paper clip.
3. Spin the paper clip to make a spinner.



**Grammar: Grammar and Writing**

# Edit and Proofread

Choose the Editing and Proofreading Marks you need to correct the passage. Look for correct usage of the relative adverbs:

- *when*
- *where*
- *why*

### Editing and Proofreading Marks

^	Add.
~	Take out.
○ ^	Move to here.
^,	Add comma.
⊙	Add period.

“Do you want to go to the space museum?” my cousin Luis asked.

“Saturday is the day <sup>when</sup> ~~where~~ kids get in free.”

Luis always has great ideas for things to do. That is the reason when I like to hang around with him. “Sure,” I answered.

Free admission was the reason where some kids were there Saturday morning, but other kids, like Luis and me, really wanted to learn stuff. We loved the exhibit for the Hubble Space Telescope. April, 24 1990, was the date where Hubble was launched. And April 24, 2010, was Hubble’s 20th birthday! We learned about the place the Hubble space program is directed. It is the NASA Goddard Space Flight Center in Maryland.

COPY READY

**Test-Taking Strategy Practice****Read All Choices**

Read each question about “The Moon Over Star.”  
Choose the best answer.

**Sample**

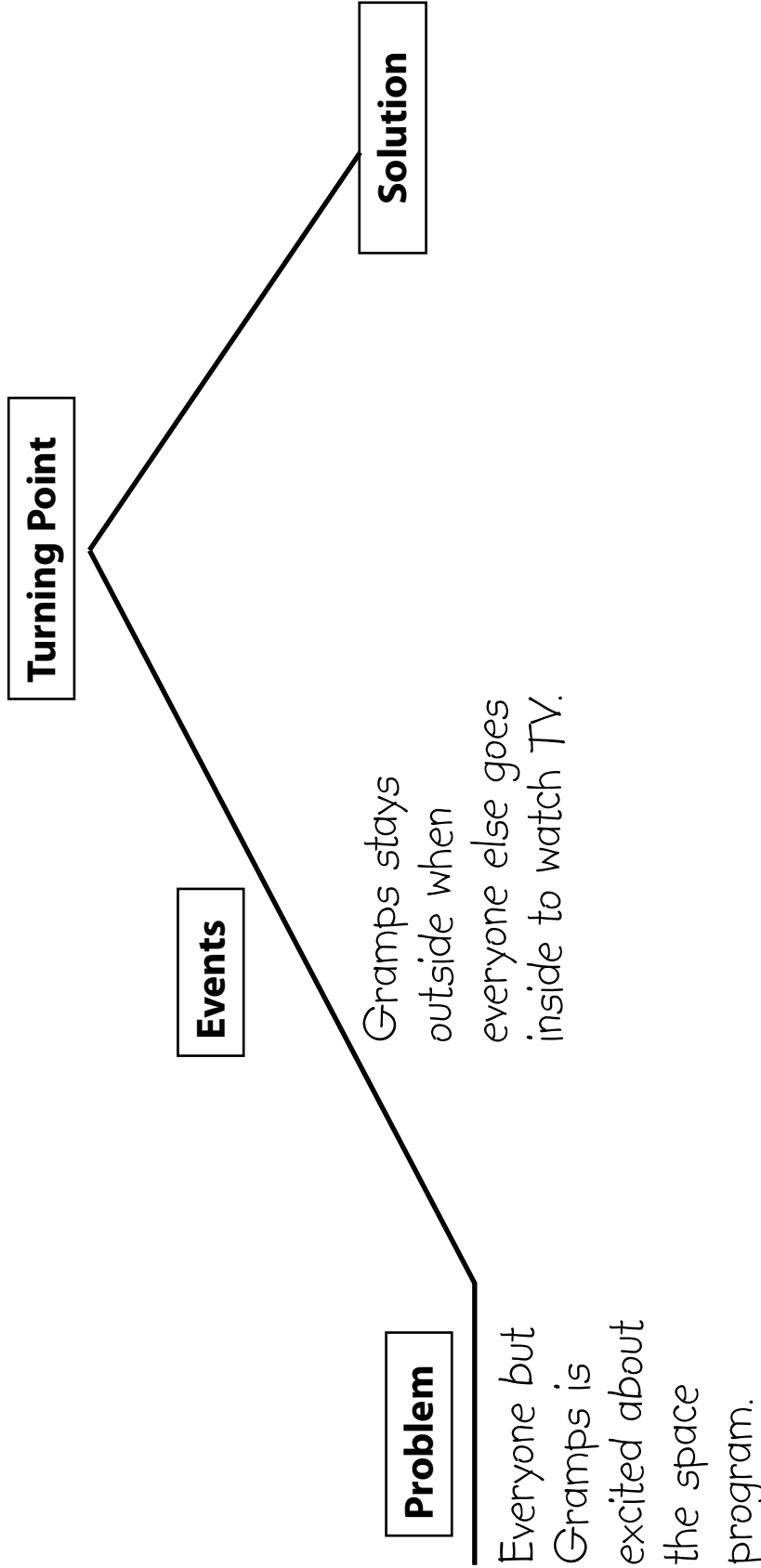
- 1** Why isn't Gramps excited about the moon landing?
- Ⓐ He is working on the tractor in the barn.
  - Ⓑ He thinks the space program is a waste of money.
  - Ⓒ He remembers the first time he saw an airplane.
  - Ⓓ He is too tired to watch the moon landing.
- 2** Astronaut Neil Armstrong said, “The Eagle has landed.” What does this mean?
- Ⓐ An Eagle has landed on the moon.
  - Ⓑ An Eagle has landed on the spacecraft.
  - Ⓒ The spacecraft has landed on an Eagle.
  - Ⓓ The spacecraft has landed on the moon.
- 3** Gramps tells Mae to “keep on dreaming.” What is Mae's dream?
- Ⓐ watching astronauts on television
  - Ⓑ making Gramps proud of her
  - Ⓒ going to the moon
  - Ⓓ flying an airplane

 **Tell a partner how you used the strategy to answer the questions.**

**Plot Diagram**

# “The Moon Over Star”

Make a plot diagram of “The Moon Over Star.”



 Use your plot diagram to retell the story to a partner.

**Fluency Practice**

# “The Moon Over Star”

Use this passage to practice reading with proper expression.

Later, when it was as quiet as the world ever gets, Gramps	12
and I stood together under the moon.	19
“What’s mankind?” I asked him.	24
“It’s all of us,” he finally said. “It’s all of us who’ve ever lived,	38
all of us still to come.”	44
I put my hand in his. “Just think, Gramps, if they could go	57
to the moon, maybe one day I could too!”	66
“Great days,” he said, “an astronaut in the family. Who’d a thought?”	78
I smiled in the dark. My gramps was proud of me.	89

**From “The Moon Over Star,” page 473**

COPY READY

**Intonation**

- |   |   |
|---|---|
| <input type="checkbox"/> 1 Does not read with feeling.                          | <input type="checkbox"/> 3 Reads with appropriate feeling for most content. |
| <input type="checkbox"/> 2 Reads with some feeling, but does not match content. | <input type="checkbox"/> 4 Reads with appropriate feeling for all content.  |

**Accuracy and Rate Formula**

Use the formula to measure a reader’s accuracy and rate while reading aloud.

$$\frac{\text{words attempted in one minute}}{\text{number of errors}} = \text{words correct per minute (wcpm)}$$

## Grammar: Reteach

**Cooking Class****Grammar Rules: Adverbs**

An **relative adverb** relates a dependent clause to a noun in the main clause.

- *When* relates to a noun of time.
- *Where* relates to a noun of place.
- *Why* relates to a reason for something.


Three o'clock is the time when I take my cooking class.

This is the classroom where I go to the class.

Good food is the reason why I love this class.

Read the sentences below. Circle the relative adverb in each one. Then fill in the correct words to complete the last sentence.

1. This is the table where we read the recipes.
2. The beginning of class is the time when we get our jobs.
3. A broken mixer is the reason why we have to mix the batter by hand.
4. The end of class is the time when we clean up.
5. The sink is the place where I put the dirty bowls.
6. The big mess is the reason why I stayed late.

 With a partner, talk about a special class or activity. Take turns using relative adverbs to describe it.



**Grammar: Game**

# Preposition Clues

**Directions:**

1. Player 1 tosses a coin onto the set of squares.
2. If the preposition the coin lands on tells a **location**, Player 1 uses the preposition in a sentence describing the location of an object in the classroom. ("This object is *beside* the teacher's desk.")
3. If the preposition describes **when something happens**, Player 1 uses it to describe an event.
4. Teammates guess what the object or event is. Guessers can use other prepositions to ask more questions. ("Is it *on* the floor?" "Is it *before* lunch?")
5. The player who guesses correctly tosses the next coin, and play continues until everyone has had three turns.

<b>above</b>	<b>during</b>	<b>inside</b>
<b>under</b>	<b>from</b>	<b>before</b>
<b>after</b>	<b>behind</b>	<b>outside</b>
<b>next to</b>	<b>between</b>	<b>near</b>
<b>beside</b>	<b>from _____ to _____</b>	<b>over</b>

Grammar: Game

# Sort Prepositions

### Directions:

1. Write the prepositions from your list in the appropriate column below. You will have two minutes to sort all of your prepositions. Remember: Some prepositions can go in more than one column.
2. Check your chart with a partner. Assign yourself one point for each preposition you sorted correctly.
3. Add all your points and compare your score with some of your classmates' scores.

Location	Time	Direction	Other

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**Comparison Chart**

# Compare Fiction and Biography

Compare a story and a biography.

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Event or Fact	"The Moon Over Star"	"The First Person on the Moon"
Neil Armstrong was born in 1930.		✓
In 1961, President Kennedy said that America would send people to the moon.	✓	✓
Armstrong, Aldrin, and Collins flew to the moon in the summer of 1969.		
Armstrong was the commander of the mission.		
The first person to walk on the moon was Armstrong.		
The world watched on television.		
Armstrong said, "One small step for man, one giant leap for mankind."		
The astronauts placed a flag on the moon.		
The moon is 240,000 miles from Earth.		

 **Work with a partner to complete the chart. What other fact or event did you add? Discuss with another team the facts that each selection gave about Armstrong.**

**Grammar: Practice**

# The Moon Over Me

## Grammar Rules Prepositional Phrases

A prepositional phrase starts with a preposition and ends with a noun or a pronoun. A prepositional phrase can:

show where	in, on, at, over, under, above, below, next to, beside, in front of, behind
show time	after, until, before, during
show direction	into, throughout, up, down, through, across, to
add details	with, to, about, among, except, of, from

**Add one or more prepositional phrases to each sentence.**

1. I found a book about the moon \_\_\_\_\_ .
2. The book was filled \_\_\_\_\_ .
3. I was excited to take the book \_\_\_\_\_ .
4. We have been studying \_\_\_\_\_ .
5. My teacher liked the fact sheet \_\_\_\_\_ .
6. My favorite photo is the picture \_\_\_\_\_ .

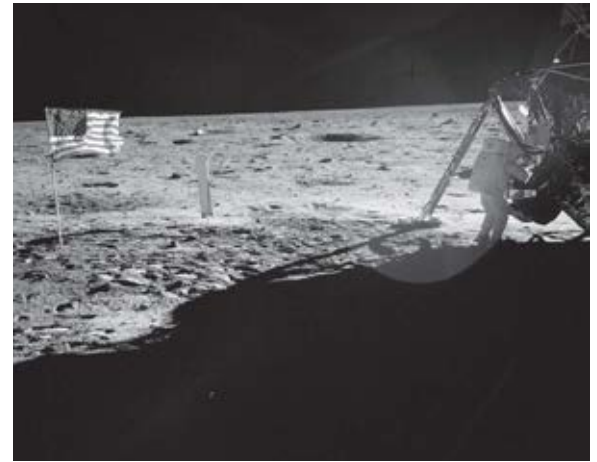
**Choose a Picture Card and use prepositional phrases to tell about it. For example: I want to travel in a space ship.**

## Mark-Up Reading

# The Lunar Landing

by Neil Armstrong, Walter Cronkite, and Edwin Aldrin

On July 20, 1969, American astronauts Neil Armstrong and Edwin “Buzz” Aldrin became the first humans on the moon. Following is a **transcript** of what Armstrong said as he stepped out of the Eagle, the LM or **lunar module**, and down its ladder. At first Armstrong spoke to Aldrin, who was still inside the LM.



▲ Armstrong and Aldrin left an American flag on the moon.

**Armstrong:** Okay, I just checked getting back up to that first step, Buzz. It's. . . The **strut** isn't collapsed too far, but it's adequate to get back up. . . Takes a pretty good little jump (to get back up to the first step). (Pause) I'm at the foot of the ladder. The LM footpads are only **depressed** in the surface about 1 or 2 inches, although the surface appears to be very, very fine grained as you get close to it. It's almost like a powder. [The] ground mass is very fine. I'm going to step off the LM now. (Long Pause) That's one small step for . . . man; one giant leap for mankind.

*Reporter Walter Cronkite described the event live on television.*

**Cronkite:** So there's a foot on the moon, stepping down on the moon. If he's testing that first step, he must be stepping down on the moon at this point. Whoa, look at those pictures—wow! It's a little shadowy, but he said he expected that in the shadow of the lunar module. Armstrong is on the moon—Neil Armstrong, 38-year-old American, standing on the surface of the moon on this July 20<sup>th</sup>, 1969.

**In Other Words****transcript** written record**lunar module** spaceship that landed on the moon**strut** support for the ladder**depressed** sank

## Mark-Up Reading

# The Lunar Landing (continued)

*Cronkite watched as Buzz Aldrin followed Armstrong down the ladder and became the second man on the moon.*

**Cronkite:** Aldrin then followed Armstrong out of the LM and into history. There he comes. Watch that last step! I guess he expected that step to **compact** a little bit more and, as a result, it's a long step. And now we have two Americans on the moon. **Three-foot first step** at one-sixth gravity, and look at that!



▲ Walter Cronkite watched Armstrong and Aldrin step off the LM onto the surface of the moon.

*More than forty-five years later, Buzz Aldrin reflected on the event in his book, Buzz Aldrin: Reaching for the Moon.*

**Aldrin:** Neil and I put on our space suits. Neil climbed out first and descended *Eagle's* ladder to the moon's surface. Everyone listening back on Earth heard Neil's first words: "That's one small step for... man, one giant leap for mankind."

I climbed down the ladder and joined Neil. There was no color on the moon. A flat landscape of rocks and craters stretched in all directions. Everything was gray or white. The shadows and the sky above were as black as the blackest velvet I had ever seen. I exclaimed: "**Magnificent desolation.**"

### In Other Words

**compact** push together with the next step

**Three-foot first step** He easily jumps three feet between the ladder and the ground

**Magnificent desolation.** Amazing and beautiful emptiness.

**Grammar: Grammar and Writing**

# Edit and Proofread

Choose the Editing and Proofreading Marks you need to correct the passage. Look for correct usage of:

- prepositions
- prepositional phrases

### Editing and Proofreading Marks

^	Add.
~	Take out.
○ ^	Move to here.
^,	Add comma.
⊙	Add period.

Darkness looms around us. Not a speck <sup>of</sup> light creeps into the huge room. We are a planetarium, and the show is starting!

A professor beside the university walks in front of us. "You are about to travel through the universe," he says outside a deep voice. "Is everyone ready?" Suddenly images stars appear on a screen above our heads. We stare in amazement from the starry dome. It is like looking the night sky, only a thousand times better.

Mysterious music swirls us. It fades, and the professor begins speaking again. He tells us the images. Then we zoom close to a star. It's like really being of space! It will be hard to return Earth after traveling through.

**Grammar: Reteach**

# Walking the Dog

## Grammar Rules: Prepositions

A **preposition** links a noun or pronoun to other words in a sentence.

- Prepositions show location, time, or direction.
- Some prepositions have many uses.

I walk the dog on the sidewalk. (location)

I can walk the dog until dinner. (time)

I walk the dog across the park. (direction)

I walk the dog for an hour.

A **prepositional phrase** always begins with a preposition and ends with a noun or pronoun.

I walk the dog to the supermarket.

COPY READY

Read the sentences below. Circle the preposition and underline the prepositional phrase.

1. I walked my dog, Sandy, to the lake.
2. She jumped into the water!
3. I called her and raced around the lake.
4. Finally, she bounced up the steps.
5. She darted behind the bushes.
6. We ran home after the fun.

With a partner, talk about the dog's activities during her walk. Use prepositional phrases to describe what she did.



Name \_\_\_\_\_ Date \_\_\_\_\_

**Unit Concept Map**

## Moving Through Space

Make a concept map with the answers to the Big Question:  
What does it take to explore space?

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**PM7.1** Unit 7 | Moving Through Space

Name \_\_\_\_\_ Date \_\_\_\_\_

**Comparison Chart**

## Comparing Sports

Make a comparison chart to compare one of the sports on page 427 with another sport.

**Comparison Chart**

Sport	Where	Goal	Measure Speed
swimming	in a pool, in water	to be the first one to finish the race	stopwatch
Possible response: running	Possible response: at a track, on land	Possible response: to be the first one to finish the race	Possible response: stopwatch

Use your comparison chart to tell your partner about the two sports.

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**PM7.2** Unit 7 | Moving Through Space

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Game**

## How It's Done!

Adjectives		Adverbs	
swift	tall	rapidly	extremely
slow	speedy	swiftly	fairly
rapid	sluggish	very	really

Choose adjectives and adverbs from the box to complete the sentences. Follow the order shown in parentheses. Use a variety of adjectives and adverbs!

- The rocket ship is \_\_\_\_\_. (adverb, adjective)
- That falcon flies \_\_\_\_\_. (adverb, adverb)
- A person can be \_\_\_\_\_. (adverb, adjective)
- Snails are \_\_\_\_\_. (adverb, adjective)
- The beam of light travels \_\_\_\_\_. (adverb, adverb).
- Cheetahs are \_\_\_\_\_. (adverb, adjective)
- This ostrich is \_\_\_\_\_. (adverb, adjective)
- The meteoroid zooms \_\_\_\_\_. (adverb, adverb)

Responses will vary, but students must place adjectives and adverbs correctly. Examples: The rocket ship is really speedy/That falcon flies extremely swiftly/A person can be very slow.

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**PM7.3** Unit 7 | Moving Through Space

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Grammar and Writing**

## Edit and Proofread

Choose the editing and proofreading marks you need to correct the passage. Look for correct usage of:

- adverbs
- adjectives

**Editing and Proofreading Marks**

^	Add.
↘	Take out.
○ ^	Move to here.
^	Add comma.
⊙	Add period.

nervously  
Ella stood nervously at the edge of the pool. Every muscle in her body was tensely as she waited for the signal to begin.  
"Go!" the coach yelled suddenly. She sprang instant into the blue water. Her arms slashed up. They slashed down. They were like a whirling windmill slicing through the water.  
Freestyle was Ella's best stroke, and she was confidently as she sped through the water. The turn was coming up. She swam energetically, got to the wall, and pushed off hard. She heard the loudly screams of the crowd, but all her concentration was focused on swimming as fast as she could.  
The race was nearly over. She had a few yards to go. Finally she slapped her hand on the edge of the pool. A roar rose quickly up from the crowd. She had won, she realized excited!

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**PM7.4** Unit 7 | Moving Through Space

Name \_\_\_\_\_ Date \_\_\_\_\_

Test-Taking Strategy Practice

Read All Choices

Directions: Read each question about "What's Faster Than a Speeding Cheetah?" Choose the best answer.

Sample

1 Which of the following moves the fastest?

- A jet
- B cheetah
- C falcon
- D rocket

2 The speed of light is one of the few speeds that is \_\_\_\_\_.

- A slower at high altitudes
- B not constant
- C constant
- D faster in space

3 Why do we have trouble measuring the speeds of animals?

- A They do not come with speedometers.
- B They are faster than the speed of sound.
- C They are hard to see.
- D They are faster than the sound of your voice.

Tell a partner how you used the strategy to answer the questions.

Name \_\_\_\_\_ Date \_\_\_\_\_

Comparison Chart

"What's Faster Than a Speeding Cheetah?"

Make a comparison chart for "What's Faster Than a Speeding Cheetah?"

Animal or Object	How it Moves	Fastest Speed	Record
ostrich	runs on two legs	72 Km (45 mi) per hour	fastest animal with two legs
cheetah	runs on four legs	113 Km (70 mi) per hour	fastest land animal
peregrine falcon	flies and dives	322 km (200 mi) per hour	fastest dive
jet plane	flies	2,124 km (1,320 mi) per hour	some fly twice the speed of sound

Use your comparison chart to tell a partner how the animals and objects are alike and different.

Name \_\_\_\_\_ Date \_\_\_\_\_

Fluency Practice

"What's Faster Than a Speeding Cheetah?"

Intonation is the rise and fall in the pitch or tone of your voice as you read aloud. Use this passage to practice reading with proper intonation.

Hold on a minute. There's something much faster than even the fastest meteoroid. It's something you see all the time. 10 20

Just push the switch on a flashlight. Instantly, a light beam will flash out at the amazing speed of 299,338 kilometers per second (186,000 miles per second). 31 42 47

That's thousands of times faster than a meteoroid. At that speed, a beam of light could circle Earth more than seven times in one second. 58 72

Most scientists believe that nothing can travel through space faster than light. Who would have thought that the fastest traveling thing in the whole universe could come out of something small enough to hold in your hand? 81 92 103 109

From "What's Faster Than a Speeding Cheetah?" pages 440–441.

Intonation

- 1  Does not change pitch.
- 2  Changes pitch, but does not match content.
- 3  Changes pitch to match some of the content.
- 4  Changes pitch to match all of the content.

Accuracy and Rate Formula

Use the formula to measure a reader's accuracy and rate while reading aloud.

$$\frac{\text{words attempted in one minute} - \text{number of errors}}{\text{words correct per minute (wcpm)}}$$

Name \_\_\_\_\_ Date \_\_\_\_\_

Grammar: Reteach

The Bicycle Race

Grammar Rules: Adverbs

An **adverb** describes a verb. It can come before or after a verb and tells *how, where, when, or how often/how much*.

- Many adverbs end in *-ly*.
- An adverb can modify an adjective or another adverb.
- Use an adverb instead of an adjective to tell about a verb.
- Never use an adverb after a form of the verb *to be*.

Miguel quickly pedals his bicycle. (How does he pedal?)

Matt sometimes rests. (How often does he rest?)

Denny very slowly bikes. (How slowly?)

Rosa happily pedals.

Rosa is happy to race.

Read the sentences below. Circle the correct word to complete the sentence.

1. Miguel begins the race (eagerly/eager).
2. Rosa races (easy/easily) to the lead.
3. Denny (careful/carefully) steers on the muddy road.
4. All the racers are (fast/fastly).
5. But, Rosa waits (patiently/patient) at the finish line.
6. She is (proudly/proud) that she won.
7. Rosa will coach the other racers (very/much) (happy/happily) for the next race.

With a partner, discuss the bike race. Take turns using adverbs to describe the different bike riders.

**Grammar: Game**

### Make a Face!

Draw an oval on a separate sheet of paper. With a partner, take turns drawing a space creature's face by adding one feature, such as eyes or antennae, on the separate paper for each turn. Make your space creature as weird or silly as you like.

**Directions:**

1. With your partner, take turns completing the sentences. Add *-er* to the adverb in parentheses or use *more* or *less*.
2. If your partner agrees that your sentence is correct, add one feature to the face. If not, your partner corrects the sentence and adds a feature to the face.
3. When the sentences are complete, your Martian will be, too!

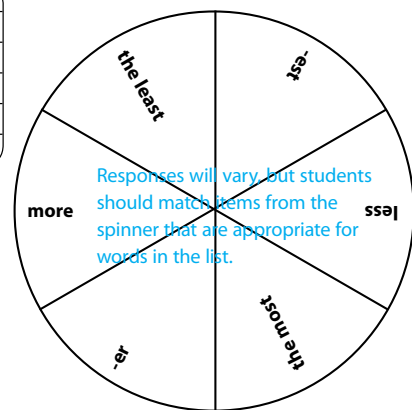
1. The Martians eat more noisily or less noisily than pigs. (noisily)
2. They sleep more frequently or less frequently than bears in winter. (frequently)
3. The creatures on Venus move slower than snails. (slow)
4. They jump higher than frogs! (high)
5. Some creatures on Jupiter fly faster than jets. (fast)
6. Others drift through space more gracefully or less gracefully than swans. (gracefully)

**Grammar: Game**

### Match and Make Comparisons

1. Take turns with your partner. Spin the spinner. Look at the letters or words you landed on.
2. Choose an adverb from the box that works with what you landed on. Form a comparison adverb. For example: *-est + late = latest*.
3. Use your comparison adverb in a sentence.
4. If your partner agrees that your sentence is correct, score 1 point. If not, your partner takes a turn.
5. Continue until all the words in the box have been used correctly to make comparison adverbs. The player with more points at the end is the winner.

- bravely
- awkwardly
- late
- politely
- quietly
- fast



**Make a Spinner**

1. Put a paper clip over the center of the spinner.
2. Touch the point of a pencil on the middle of the wheel and through the loop of the paper clip.
3. Spin the paper clip to make a spinner.

**Comparison Chart**

### Compare Fact and Opinion

Compare facts and opinions in the two selections.

	Facts	Opinions
"What's Faster Than a Speeding Cheetah?"	<p>Possible responses: A peregrine falcon can dive faster than any creature can run. Sound travels in waves. A meteoroid is a space rock.</p>	<p>A peregrine falcon is magnificent. Possible response: ... you might be thinking that the meteoroid you saw was the fastest thing you could ever see.</p>
"Building for Space Travel"	<p>Constance Adams helped design TransHab. Possible response: One very strong material was Kevlar, which is used in convertible cars.</p>	<p>Possible response: A crew's comfort is not important on short missions.</p>

Take turns with a partner. Ask each other questions about the facts and opinions found in the selections.

**Grammar: Practice**

### Exercising in Zero Gravity

**Grammar Rules Adverbs**

Use **adverbs** to describe and compare actions.

Describe 1 action	soon	carefully	
Compare 2 actions	sooner	more carefully than	less carefully than
Compare more than 2 actions	soonest	the most carefully	the least carefully


Read each sentence. Write the correct form of the adverb on the line.

1. Every day I enter the gym sooner than my partner. (soon)
2. I walk in eagerly than a gymnast. (eagerly)
3. I notice that the equipment is attached securely. (securely)
4. At first, I ran the least quickly of all the astronauts. (quickly)
5. If I keep practicing, I may one day run the fastest of all. (fast)
6. Scientists planned TransHab the most carefully of any gym. (carefully)

Pantomime an action an astronaut might do in zero gravity. Have your partner describe or compare your action using an adverb. Then switch roles.


Name \_\_\_\_\_ Date \_\_\_\_\_

**Mark-Up Reading**



**Dear Astronaut Holmer:** I read that space shuttles have bedrooms. What is it like to sleep on a space shuttle? — Lukshmi Patel, India

**Dear Lukshmi,**  
Sleeping in space felt very strange at first. It felt odd using a sleeping bag tied to the wall! But otherwise we would float around and bump into things. There is still gravity in a spacecraft, but it's a very weak force. Weak gravity means there's no up or down. Once you're used to it, it's fun to sleep in any direction! The light of the Sun also makes sleeping a challenge. We need to sleep eight hours at the end of each work day. However, as the shuttle orbits around Earth, the Sun "rises" every 90 minutes, waking us up too soon. So we wear masks to block out the light while we sleep.



▲ Sometimes astronauts sleep in sleeping bags tied to the walls of the spacecraft.

**Explanation**

Explain how reasons and evidence support the main ideas in the astronaut's answer to Lukshmi:

\_\_\_\_\_


\_\_\_\_\_

\_\_\_\_\_

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Name \_\_\_\_\_ Date \_\_\_\_\_

**Mark-Up Reading**



**Dear Astronaut Jamal Holmer:** We learned that space shuttles have exercise rooms. It has to be hard to exercise without gravity! How do you exercise in space? — Mr. Fletcher's fourth-grade class from California

**Dear Class,**  
Exercising in space is fun and necessary! Imagine what would happen if you never had to walk anywhere or never had to lift heavy objects. Your muscles would get really weak! Luckily, there are plenty of ways to exercise. On the International Space Station, we might use the exercise bike or special equipment that simulates lifting weights to keep our muscles strong. Or we might turn somersaults and race from one end of the space station to the other!



▲ Astronauts need to exercise often to keep their muscles strong.

In Other Words  
simulates gives the feeling of

**Explanation**

Explain how reasons and evidence support the main idea in the astronaut's answer to Mr. Fletcher's class:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Grammar and Writing**

## Edit and Proofread

Choose the Editing and Proofreading Marks you need to correct the passage. Look for correct usage of adverbs with the following.

- er and -est
- more/less and the most/the least
- special forms

Editing and Proofreading Marks	
^	Add.
↘	Take out.
○ ^	Move to here.
^	Add comma.
⊙	Add period.

Do you ever imagine traveling <sup>faster</sup> ~~fastest~~ than a flash to reach Mars? I have been dreaming about that, but last night I dreamed <sup>more</sup> ~~the most~~ vividly about Mars than I had the night before. In my dream, my rocket ship traveled through space <sup>more</sup> ~~quickly~~ than a real spacecraft. It orbited <sup>the best</sup> ~~most~~ well but landed the <sup>gently</sup> ~~least~~ gentlest of all the rocket ships arriving on Mars that night.

I stood in a strange landscape. A dust storm blew <sup>more</sup> ~~most~~ fiercely than a blizzard. Huge piles of sand rose higher than a house. Suddenly many small rocks were flying toward me. The one moving the <sup>least</sup> ~~slowly~~ swiftly of all was coming right at my head. I tried to duck, but I moved <sup>slowly</sup> ~~more slowly~~ than a spoon in molasses. Fortunately, then I woke up. I was exhausted. I had slept <sup>worse</sup> ~~more~~ badly than any night in my life!

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Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Reteach**

## Hiking Up the Mountain

**Grammar Rules: Adverbs**

To compare <u>two actions</u> , add 'er for many adverbs. Use <i>more</i> or <i>less</i> for adverbs ending in 'ly.	This mountain stands <u>taller</u> than that one. That path winds <u>more steeply</u> than the road.
To compare <u>three or more actions</u> , add 'est for many adverbs. Use <i>the most</i> or <i>the least</i> for adverbs ending in 'ly.	This mountain stands the <u>tallest</u> of all the mountains. Max hikes <u>the most</u> eagerly of all his friends.
Special forms: well: better, best badly: worse, worst	I hike <u>well</u> . She hikes <u>better</u> than I do. Ana feels <u>badly</u> . Lara feels <u>worse</u> .

**Write the correct word to complete the sentence.**

- Max hikes better than I hike. (better, best)
- I climb higher than he does. (high, higher)
- Ana walks the most slowly of all. (slowly, slowliest)
- Max climbs the fastest. (more fast, fastest)
- This hike is worst than the last one! (worst, worse)

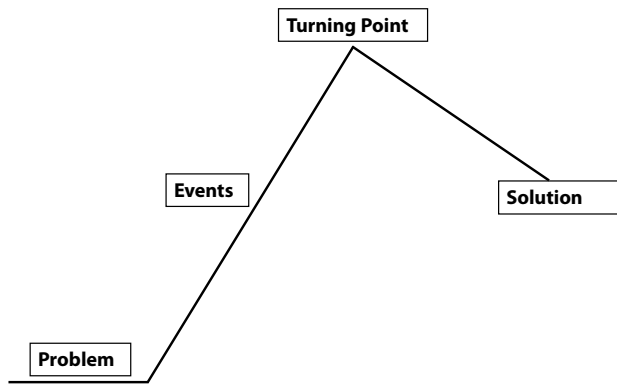
**With a partner, take turns using comparison adverbs to compare hiking to another sport.**

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**Plot Diagram**

## Plot of a Story

Make a plot diagram about a favorite story.



Use the plot diagram to retell your story to a partner.

**Grammar: Game**

## Relative Adverb Spinner

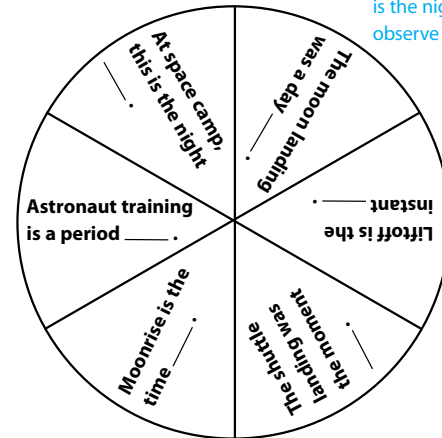
Directions:

1. Take turns spinning the spinner.
2. Complete the sentence with a dependent clause that begins with the relative adverb *when*.
3. Play until you have completed all the sentences. Then play another round!

**Make a Spinner**

1. Put a paper clip over the center of the spinner.
2. Touch the point of a pencil on the middle of the wheel and through the loop of the paper clip.
3. Spin the paper clip to make a spinner.

Responses will vary, but the dependent clause in each sentence must begin with *when*. Example: At space camp, this is the night when we observe the stars.



**Grammar: Grammar and Writing**

## Edit and Proofread

Choose the Editing and Proofreading Marks you need to correct the passage. Look for correct usage of the relative adverbs:

- *when*
- *where*
- *why*

**Editing and Proofreading Marks**

^	Add.
↗	Take out.
○ ^	Move to here.
^	Add comma.
⊙	Add period.

"Do you want to go to the space museum?" my cousin Luis asked.  
 "Saturday is the day <sup>when</sup> kids get in free."

Luis always has great ideas for things to do. That is the reason <sup>why</sup> <sup>when</sup> I like to hang around with him. "Sure," I answered.

Free admission was the reason <sup>why</sup> <sup>where</sup> some kids were there

Saturday morning, but other kids, like Luis and me, really wanted to learn stuff. We loved the exhibit for the Hubble Space Telescope.

April, 24 1990, was the date <sup>when</sup> <sup>where</sup> Hubble was launched. And April 24, 2010, was Hubble's 20th birthday! We learned about the place <sup>where</sup>

the Hubble space program is directed. It is the NASA Goddard Space Flight Center in Maryland.

**Test-Taking Strategy Practice**

## Read All Choices

Read each question about "The Moon Over Star." Choose the best answer.

**Sample**

- 1 Why isn't Gramps excited about the moon landing?
- A He is working on the tractor in the barn.
  - B He thinks the space program is a waste of money.
  - C He remembers the first time he saw an airplane.
  - D He is too tired to watch the moon landing.

- 2 Astronaut Neil Armstrong said, "The Eagle has landed." What does this mean?

- A An Eagle has landed on the moon.
- B An Eagle has landed on the spacecraft.
- C The spacecraft has landed on an Eagle.
- D The spacecraft has landed on the moon.

- 3 Gramps tells Mae to "keep on dreaming." What is Mae's dream?

- A watching astronauts on television
- B making Gramps proud of her
- C going to the moon
- D flying an airplane

Tell a partner how you used the strategy to answer the questions.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Plot Diagram**  
**"The Moon Over Star"**  
 Make a plot diagram of "The Moon Over Star."

**Problem**  
 Everyone but Gramps is excited about the space program.

**Events**  
 Gramps stays outside when everyone else goes inside to watch TV. Everyone, except Gramps, cheers when the Eagle lands. Mae asks Gramps to watch the moon walk with her.

**Turning Point**  
 Gramps admits the moon walk is something to remember.

**Solution**  
 Gramps watches the moon walk. Gramps is proud of Mae and her dream of being an astronaut.

Use your plot diagram to retell the story to a partner.

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Page PM7.21

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Reteach**  
**Cooking Class**

**Grammar Rules: Adverbs**

An **relative adverb** relates a dependent clause to a noun in the main clause.

- *When* relates to a noun of time. Three o'clock is the time when I take my cooking class.
- *Where* relates to a noun of place. This is the classroom where I go to the class.
- *Why* relates to a reason for something. Good food is the reason why I love this class.

Read the sentences below. Circle the relative adverb in each one. Then fill in the correct words to complete the last sentence.

1. This is the table where we read the recipes.
2. The beginning of class is the time when we get our jobs.
3. A broken mixer is the reason why we have to mix the batter by hand.
4. The end of class is the time when we clean up.
5. The sink is the place where I put the dirty bowls.
6. The big mess is the reason why I stayed late.

With a partner, talk about a special class or activity. Take turns using relative adverbs to describe it.

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Page PM7.23

Name \_\_\_\_\_ Date \_\_\_\_\_

**Fluency Practice**  
**"The Moon Over Star"**

Use this passage to practice reading with proper expression.

Later, when it was as quiet as the world ever gets, Gramps 12  
 and I stood together under the moon. 19

"What's mankind?" I asked him. 24

"It's all of us," he finally said. "It's all of us who've ever lived, 38  
 all of us still to come." 44

I put my hand in his. "Just think, Gramps, if they could go 57  
 to the moon, maybe one day I could too!" 66

"Great days," he said, "an astronaut in the family. Who'd a thought?" 78

I smiled in the dark. My gramps was proud of me. 89

**From "The Moon Over Star," page 473**

**Intonation**

1  Does not read with feeling. 3  Reads with appropriate feeling for most content.  
 2  Reads with some feeling, but does not match content. 4  Reads with appropriate feeling for all content.

**Accuracy and Rate Formula**  
 Use the formula to measure a reader's accuracy and rate while reading aloud.

$$\frac{\text{words attempted in one minute}}{\text{number of errors}} = \frac{\text{words correct per minute (wcpm)}}{\text{words correct per minute (wcpm)}}$$

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Page PM7.22

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Game**  
**Preposition Clues**

**Directions:**

1. Player 1 tosses a coin onto the set of squares.
2. If the preposition the coin lands on tells a **location**, Player 1 uses the preposition in a sentence describing the location of an object in the classroom. ("This object is *beside* the teacher's desk.")
3. If the preposition describes **when something happens**, Player 1 uses it to describe an event.
4. Teammates guess what the object or event is. Guessers can use other prepositions to ask more questions. ("Is it *on* the floor?" "Is it *before* lunch?")
5. The player who guesses correctly tosses the next coin, and play continues until everyone has had three turns.

above	during	inside
under	from	before
after	behind	outside
next to	between	near
beside	from ____ to ____	over

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Page PM7.24

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Game**

**Sort Prepositions**

**Directions:**

1. Write the prepositions from your list in the appropriate column below. You will have two minutes to sort all of your prepositions. Remember: Some prepositions can go in more than one column.
2. Check your chart with a partner. Assign yourself one point for each preposition you sorted correctly.
3. Add all your points and compare your score with some of your classmates' scores.

Location	Time	Direction	Other

Name \_\_\_\_\_ Date \_\_\_\_\_

**Comparison Chart**

**Compare Fiction and Biography**

Compare a story and a biography.

Event or Fact	"The Moon Over Star"	"The First Person on the Moon"
Neil Armstrong was born in 1930.		✓
In 1961, President Kennedy said that America would send people to the moon.	✓	✓
Armstrong, Aldrin, and Collins flew to the moon in the summer of 1969.	✓	✓
Armstrong was the commander of the mission.	✓	✓
The first person to walk on the moon was Armstrong.	✓	✓
The world watched on television.	✓	✓
Armstrong said, "One small step for man, one giant leap for mankind."	✓	✓
The astronauts placed a flag on the moon.		✓
The moon is 240,000 miles from Earth.	✓	
Responses will vary.		

Work with a partner to complete the chart. What other fact or event did you add? Discuss with another team the facts that each selection gave about Armstrong.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Practice**

**The Moon Over Me**

**Grammar Rules Prepositional Phrases**

A prepositional phrase starts with a preposition and ends with a noun or a pronoun. A prepositional phrase can:

show where	in, on, at, over, under, above, below, next to, beside, in front of, behind
show time	after, until, before, during
show direction	into, throughout, up, down, through, across, to
add details	with, to, about, among, except, of, from

- Add one or more prepositional phrases to each sentence.
1. I found a book about the moon at the library .
  2. The book was filled with beautiful photographs .
  3. I was excited to take the book to school .
  4. We have been studying about the moon in class .
  5. My teacher liked the fact sheet at the back of the book .
  6. My favorite photo is the picture with the flag on the moon .

Choose a Picture Card and use prepositional phrases to tell about it. For example: I want to travel in a space ship.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Mark-Up Reading**

**The Lunar Landing**

by Neil Armstrong, Walter Cronkite, and Edwin Aldrin

On July 20, 1969, American astronauts Neil Armstrong and Edwin "Buzz" Aldrin became the first humans on the moon. Following is a transcript of what Armstrong said as he stepped out of the Eagle, the LM or lunar module, and down its ladder. At first Armstrong spoke to Aldrin, who was still inside the LM.



▲ Armstrong and Aldrin left an American flag on the moon.

**Armstrong:** Okay, I just checked getting back up to that first step, Buzz. It's... The strut isn't collapsed too far, but it's adequate to get back up... Takes a pretty good little jump (to get back up to the first step). (Pause) I'm at the foot of the ladder. The LM footpads are only depressed in the surface about 1 or 2 inches, although the surface appears to be very, very fine grained as you get close to it. It's almost like a powder. [The] ground mass is very fine. I'm going to step off the LM now. (Long Pause) That's one small step for... man; one giant leap for mankind.

Reporter Walter Cronkite described the event live on television.

**Cronkite:** So there's a foot on the moon, stepping down on the moon. If he's testing that first step, he must be stepping down on the moon at this point. Whoa, look at those pictures—wow! It's a little shadowy, but he said he expected that in the shadow of the lunar module. Armstrong is on the moon—Neil Armstrong, 38-year-old American, standing on the surface of the moon on this July 20<sup>th</sup>, 1969.

In Other Words  
**transcript** written record  
**lunar module** spaceship that landed on the moon  
**strut** support for the ladder  
**depressed** sank

Name \_\_\_\_\_ Date \_\_\_\_\_

**Mark-Up Reading**

## The Lunar Landing (continued)

*Cronkite watched as Buzz Aldrin followed Armstrong down the ladder and became the second man on the moon.*

**Cronkite:** Aldrin then followed Armstrong out of the LM and into history. There he comes. Watch that last step! I guess he expected that step to **compact** a little bit more and, as a result, it's a long step. And **now we have two Americans on the moon.** **Three-foot first step** at one-sixth gravity, and look at that!



▲ Walter Cronkite watched Armstrong and Aldrin step off the LM onto the surface of the moon.

*More than forty-five years later, Buzz Aldrin reflected on the event in his book, Buzz Aldrin: Reaching for the Moon.*

**Aldrin:** Neil and I put on our space suits. Neil climbed out first and descended *Eagle's* ladder to the moon's surface. Everyone listening back on Earth heard Neil's first words: "That's one small step for... man, one giant leap for mankind."

I climbed down the ladder and joined Neil. There was no color on the moon. **A flat landscape of rocks and craters** stretched in all directions. Everything was **gray or white**. The shadows and the sky above were as black as the blackest velvet I had ever seen. I exclaimed: "**Magnificent desolation.**"

**In Other Words**

**compact** push together with the next step

**Three-foot first step** He easily jumps three feet between the ladder and the ground

**Magnificent desolation.** Amazing and beautiful emptiness.

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**PM7.29**

**Unit 7 | Moving Through Space**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Mark-Up Reading**

## The Lunar Landing (continued)

### Armstrong's and Cronkite's Accounts

Narrator	What he does and sees	Information he gives	Type of account
Armstrong	<ul style="list-style-type: none"> <li>checks the ladder</li> <li>studies the moon's surface</li> <li>steps onto the moon</li> <li>says "That's one small step for...man; one giant leap for mankind."</li> </ul>	<ul style="list-style-type: none"> <li>technical information about the LM</li> <li>scientific information about the moon's surface</li> </ul>	firsthand
Cronkite	<ul style="list-style-type: none"> <li>describes the video footage coming from the moon</li> <li>sees Armstrong step onto the moon</li> </ul>	<ul style="list-style-type: none"> <li>historic details of the event</li> </ul>	secondhand

### Cronkite's and Aldrin's Accounts

Narrator	What he does and sees	Information he gives	Type of account
Cronkite	<ul style="list-style-type: none"> <li>describes the video footage coming from the moon</li> <li>sees Aldrin stepping onto the surface of the moon</li> </ul>	<ul style="list-style-type: none"> <li>the fact that two humans were on the moon</li> </ul>	secondhand
Aldrin	<ul style="list-style-type: none"> <li>climbs down onto the moon</li> <li>sees a colorless rocky landscape</li> <li>sees a big black sky</li> <li>says "Magnificent desolation."</li> </ul>	<ul style="list-style-type: none"> <li>what the moon looks like as you stand on it</li> </ul>	firsthand

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**PM7.30**

**Unit 7 | Moving Through Space**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Grammar: Reteach**

## Walking the Dog

### Grammar Rules: Prepositions

A **preposition** links a noun or pronoun to other words in a sentence.

- Prepositions show location, time, or direction.
- Some prepositions have many uses.

I walk the dog on the sidewalk. (location)

I can walk the dog until dinner. (time)

I walk the dog across the park. (direction)

I walk the dog for an hour.

A **prepositional phrase** always begins with a preposition and ends with a noun or pronoun.

I walk the dog to the supermarket.

Read the sentences below. Circle the preposition and underline the prepositional phrase.

- I walked my dog, Sandy, to the lake.
- She jumped into the water!
- I called her and raced around the lake.
- Finally, she bounced up the steps.
- She darted behind the bushes.
- We ran home after the fun.

With a partner, talk about the dog's activities during her walk. Use prepositional phrases to describe what she did.

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**PM7.31**

**Unit 7 | Moving Through Space**



## Books at a Glance

Lexile® key

**BL** Below Level = 400L–550L

**OL** On Level = 700L–850L

**BL** Below Level = 550L–700L

**AL** Above Level = 800L–950L

		Level* & Title	Author	Content Connection	Pages
Week 1 Forces and Motion	DAY 1	Explorer Books, <b>Soaring with Science</b> <b>BL</b> Pioneer Edition <b>OL</b> Pathfinder Edition	Susan Halko	Laws of Motion	SG4–SG5
	DAYS 2–5	<b>BL</b> <b>Forces That Move</b>	Kate Bohem Jerome	Forces	SG6, SG8
		<b>BL</b> <b>Defining the Laws of Motion</b>	Glen Phelan	Motion	SG6, SG8
		<b>OL</b> <b>Using Force and Motion</b>	Glen Phelan	Motion, Gravity, and Friction	SG7, SG9
		<b>AL</b> <b>The Science of Hitting a Home Run</b>	Jim Whiting	Forces and Motion	SG7, SG9
Week 2 Moon, Space, and Stars	DAY 1	Explorer Books, <b>Destination: Moon</b> <b>BL</b> Pioneer Edition <b>OL</b> Pathfinder Edition	Beth Geiger	The Moon	SG10–SG11
	DAYS 2–5	<b>BL</b> <b>Lighter on the Moon</b>	Jeanne and Bradley Weaver	Gravity in Space	SG12, SG14
		<b>BL</b> <b>Exploring Space</b>	Kate Boehm Jerome	Space Exploration	SG12, SG14
		<b>OL</b> <b>The International Space Station</b>	Franklyn M. Branley	Space Station	SG13, SG15
		<b>AL</b> <b>Stars and Galaxies</b>	Ellen Fried	Space	SG13, SG15
Week 3 Exploring Space	DAY 1	Explorer Books, <b>Living It Up in Space</b> <b>BL</b> Pioneer Edition <b>OL</b> Pathfinder Edition	Nancy Finton	Astronauts	SG16–SG17
	DAYS 2–5	<b>BL</b> <b>Richie’s Rocket</b>	Joan Anderson	Space Exploration	SG18, SG20
		<b>PART 1</b> <b>BL</b> <b>Stanley in Space</b>	Jeff Brown	Space Exploration	SG18, SG20
		<b>PART 1</b> <b>OL</b> <b>Star Jumper: Journal of a Cardboard Genius</b>	Frank Asch	Spaceships	SG19, SG21
		<b>PART 1</b> <b>AL</b> <b>The Space Mission Adventure</b>	Sharon M. Draper	Space Camp	SG19, SG21
Week 4 Exploring Space	DAY 1	Explorer Books, <b>Saturn: The Ring World</b> <b>BL</b> Pioneer Edition <b>OL</b> Pathfinder Edition	Lesley J. MacDonald	Planets	SG22–SG23
	DAYS 2–5	<b>BL</b> <b>Moonshot</b>	Brian Floca	Lunar Exploration	SG24, SG26
		<b>PART 2</b> <b>BL</b> <b>Stanley in Space</b>	Jeff Brown	Space Exploration	SG24, SG26
		<b>PART 2</b> <b>OL</b> <b>Star Jumper: Journal of a Cardboard Genius</b>	Frank Asch	Spaceships	SG25, SG27
		<b>PART 2</b> <b>AL</b> <b>The Space Mission Adventure</b>	Sharon M. Draper	Space Camp	SG25, SG27

\*See page R2 for Guided Reading (GR) and other leveling translation information.

# Unit 7 Reading Routines

Fiction & Nonfiction

## PROGRAM RESOURCES

### PRINT ONLY

Fiction and Nonfiction Books

### PRINT & TECHNOLOGY

Unit 6 Assessment Masters:

SG6.29–SG6.32

Unit 7 Practice Masters: SG7.1–SG7.28

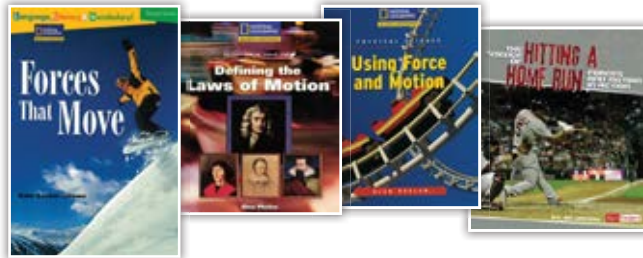
Unit 7 Assessment Masters:

SG7.29–SG7.32

### TECHNOLOGY ONLY

My Vocabulary Notebook

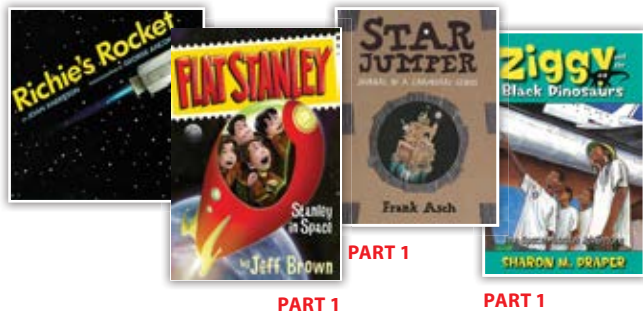
### WEEK 1 Non fiction



### WEEK 2 Non Fiction



### WEEK 3 Fiction



### WEEK 4 Fiction



## Introduce

**Assign books.** Use the summaries of the books in the Teaching Resources for an overview of content. Analyze the Unit 6 **Assessment Masters** and your conference notes to assign books according to students' interests and reading levels.

**Introduce books.** Activate prior knowledge and build background for the books, using the Teaching Resources. Remind students that all of the books connect to the Big Question: *What does it take to explore space?*

**Introduce vocabulary.** Use **Vocabulary Routine 1** to teach the story words for each book.

1. **Display** the words for each book.
2. **Pronounce** each word.
3. Have students **rate** each word, holding up their fingers to show how well they know the word (1 = not at all; 2 = a little; 3 = very well). Ask: *What do you know about this word?*
4. Have students **define** each word, using the Story Words **Practice Masters**. For example: *A curious person has many questions.*
5. Relate each word to students' knowledge and experience. *I am curious about what makes rockets fly.* Have students work in pairs to **elaborate**.
6. Have students **record** each word in **My Vocabulary Notebook**.

For **Vocabulary Routine 1**, see page BP46.

## Read and Integrate Ideas

**Have students read independently.** Circulate to observe students as they read. Ask individuals to read sections aloud. Note any miscues as they read, and encourage students to self-correct. Model by asking questions like: *Did that make sense in the sentence? You said \_\_\_\_\_. Does that sound right?*

**Monitor students' understanding.** As students read, have them complete the Graphic Organizer **Practice Master** for their books. Prompt them to show you where in the books they gathered the information to complete their organizers.

**Form homogeneous discussion groups.** Group students who have read the same book. Distribute the Discussion Guide **Practice Master** for that book to each group member.

**Monitor group discussions.** Have students discuss the book they read, using the questions on the Discussion Guide. Use the build comprehension questions in the Teaching Resources to develop higher-order thinking skills. See the Discussion Guide Answer Keys on pages SG60–SG67.

**Provide writing options.** Have each student complete one of the writing options from the Teaching Resources. Encourage students to share their writing with their group.

**BEFORE READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Academic Vocabulary**

**Story Words**

**Forces That Move**

**cause** (kayz) verb  
To cause means to make something happen. It means to be the reason something happens.

**direction** (dih-reek-shun) noun  
Direction is the line or path along which something moves. It tells you the way to go.

**lessen** (lee-sen) verb  
To lessen means to get smaller in some way. An object becomes smaller when it is broken.

**smooth** (smooth) adjective  
Something smooth is very even and flat, not rough and bumpy. The new road is smooth.

**strength** (sven-gth) noun  
Strength is a lot of power. You need a lot of strength to carry heavy loads.

**Using Force and Motion**

**apply** (ih-plee) verb  
To apply means to have a connection to someone or something. The science teacher applies his knowledge.

**conclude** (kohn-klud) verb  
To conclude is to decide something based on facts. Based on the evidence, we conclude that the planet is round.

**reaction** (ih-ak-shun) noun  
A reaction is a response to something or someone. What reaction do you have to your teacher's question?

**reduce** (ih-dyoo) verb  
To reduce means to make smaller in size, amount, or number. Scientists reduce the amount of pollution.

**resist** (ih-ziht) verb  
When you resist something, you are not changed or harmed by it. A dog barks to resist the hand of its owner.

**Defining the Laws of Motion**

**curious** (kyoo-ee-oh) adjective  
Someone curious wants to learn or find out. All youngsters are curious, so ask a lot of questions every day.

**model** (moh-dul) noun  
A model is a description used to get a sense of something that cannot be seen. The center of the model is the Earth's core.

**prove** (pruhv) verb  
To prove means to show that something is true. I used a lot of proof that I was right.

**reaction** (ih-ak-shun) noun  
A reaction is a response to something else. People in the crowd had a strong reaction to the speech.

**rotate** (ih-roo-ayt) verb  
To rotate means to turn. At the top of the hill, instead of the road, it rotates to go in a different direction.

**The Science of Hitting a Home Run**

**determine** (dih-ter-mee-n) verb  
To determine means to be the reason for something. Scientists determine the cause of the rain.

**direction** (dih-reek-shun) noun  
Direction is the line or path along which something moves. Along the direction, they regularly swing the bat.

**impact** (ih-pek-uh) noun  
An impact is the striking together of two things. The impact of the earthquake was very strong.

**transfer** (tranz-fer) verb  
To transfer means to pass from one place to another. The energy from the bat is transferred to the ball.

**vary** (vahy) verb  
To vary means to change. Every year, the weather varies.

**SG7.1** Unit 7 | Exploring Space

**AFTER READING**

**Unit 7**

**Speaking and Listening Observation Log**

Student Name	1	2	3	4	5	6	7	8	9	10	11	12

**Speaking and Listening Standards**

**Comprehension and Collaboration**

1. Participate actively in relevant discussions and group activities, including expressing their ideas and opinions clearly.

2. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

3. Compare and contrast their ideas and opinions with those of others.

4. Support their opinions with relevant facts, definitions, opinions, and attitudes.

5. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

6. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

7. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

8. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

9. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

10. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

11. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

12. Analyze a topic or issue, reading or listening to, and discuss it using relevant facts, definitions, opinions, and attitudes.

Grade 4 Assessment **SG7.29** Unit 7 | Moving Through Space

**DURING CONFERENCES**

Name \_\_\_\_\_ Date \_\_\_\_\_

Book Title \_\_\_\_\_ Page \_\_\_\_\_

**Unit 7**

**Reading Strategy Assessment**

Check the reading strategies the student used and ask the questions that follow about how the student used the strategy. Use the rubric to help you determine how well the student used the strategy. Circle the student's score.

Ask: *What did you do while you were reading?*  
*What part of the book that confused you or was hard to follow?*  
*What did you do to understand better?*  
*How did it work?*

	Reading Strategy Rubrics		
	Plan and Monitor 4 3 2 1	Make Connections 4 3 2 1	Visualize 4 3 2 1
4	What did you do when you started reading the book? • When you were reading, did you go back and reread any part of the book for better understanding? • When you didn't understand, what did you do? • How did that meaning become clear to you?	How did you connect the book to your life? • How did the help you understand what you were reading? • How were particular words that helped you visualize?	How did you use the book that made you visualize the pictures in your mind? • How did the help you understand what you were reading? • How were particular words that helped you visualize?
3	Consistently previews text and makes and confirms predictions. Monitors when comprehension breaks down and demonstrates ability to clarify text independently.	Makes some type of internal connection, but does not elaborate on how the connection helped understanding.	Describes multi-sensory mental images that go beyond the literal text. Explains how this helped understanding.
2	Sometimes previews and makes predictions, but may not confirm them. Can recognize when comprehension has broken down, but does not attempt to clarify text.	Attempts to make connections, but the connections are not relevant to understanding the text.	Describes few mental images directly related to text descriptions or pictures.
1	Does not preview or make predictions. Is not aware of when comprehension or clarity is missing.	Does not make connections with the text.	Does not describe mental images related to the text.

Grade 4 Assessment **SG7.30** Unit 7 | Moving Through Space

**NGReach.com Practice Masters**  
**SG7.1, SG7.8, SG7.15, SG7.22**

**NGReach.com Assessment Master**  
**SG7.29**

**NGReach.com Assessment Masters**  
**SG7.30–SG7.32**

## Connect Across Texts

**Form heterogeneous groups.** Group students who have read different books. Include at least one representative for each book read that week.

**Introduce the activity.** Distribute the Connect Across Texts **Practice Master** for the week. Explain to each group that they will share the books they read, talk about their themes, and discuss what the books say about places in the world.

**Have students summarize.** Ask students to summarize the books they just read, including new story words that helped them understand the themes and content. Have them refer to their graphic organizers as they share their books with the group.

**Have students connect across texts.** Have groups use the questions provided on the Connect Across Texts **Practice Masters** to guide discussions. See the Discussion Guide Answer Keys for possible responses.

**Monitor groups.** Use Speaking and Listening Observation Log **Assessment Master SG7.29** to assess students' participation in discussions.

## Conduct Conferences

**Assess reading.** Have each student select and read aloud from a section of the book that connects to the Big Question. Listen for fluency. Ask: *Which strategies did you use to help you understand this section?* Use the reading strategy rubrics on **Assessment Masters SG7.30** and **SG7.31** to assess how well the student uses the reading strategies. Then have the student complete Reader Reflection **Assessment Master SG7.32**.

**Assess writing.** Have the student share a completed writing option. Say: *Tell me about what you wrote.* Monitor responses to gauge how well the writing relates to the book. Ask: *How did your writing help you understand the book?*

**Plan intervention or acceleration.** Ask the student to summarize what he or she has learned. Plan for further instruction:

- If the student needs additional support with synthesizing, comparing and contrasting, explaining text, or comprehending plot, use the Assessment and Reteaching resources provided on pages RT7.1–RT7.13.
- If the student successfully applies the focus skills, use the Recommended Books on page SG68 to guide the student in choosing books for independent reading.

### OBJECTIVES

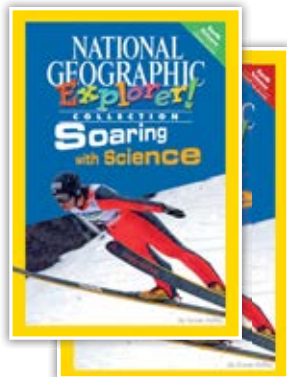
#### Thematic Connection: Forces and Motion

Read and Comprehend Informational Text

Determine Word Meanings

## Soaring with Science by Susan Halko

**Summary** *Soaring with Science* explores Isaac Newton’s three laws of motion by describing their effect on ski jumping and on everyday activities. In “Soaring with Science,” author Susan Halko explains that champion ski jumper Lindsey Van springs into motion by pushing off a bar. This reflects Newton’s first law, which says that a force is needed to move a resting object. Lindsey’s speed while she moves down the mountain is affected by her mass. This reflects Newton’s second law. Lift helps Lindsey stay in the air—she pushes air down and air pushes her up. This is Newton’s third law, which states that for every action there is a reaction. However, gravity pulls Lindsey back down to the ground. “Laws at Play” shows the laws of motions in action when children play. For example, Newton’s second law is evident when someone pushes a child on a swing to make it go faster.



**Activate Prior Knowledge** Display the front cover and ask: *Where have you seen ski jumpers like this one?* (Possible responses: TV sports shows; competitions) Have students explain why they think skiing is hard.

**Build Background** Explain that ski jumpers use their athletic skill to soar high into the air; however, three laws of how objects move are at work, too. Explain that scientist Isaac Newton described these laws. Show the photos on pages 10–11 and have volunteers describe how you move in each activity.

### PROGRAM RESOURCES

#### PRINT ONLY

*Soaring with Science*, Pioneer Edition

*Soaring with Science*, Pathfinder Edition

#### TECHNOLOGY ONLY

My Vocabulary Notebook

### COMMON CORE STANDARDS

#### Reading

Determine Meanings of Domain-Specific Words CC.4.Rinf.4

Read and Comprehend Informational Text CC.4.Rinf.10

#### Language

Acquire and Use Domain-Specific Words CC.4.L.6

### Mini Lesson

#### Determine Word Meanings

Explain: *In a text, an author often gives clues to the meaning of unfamiliar words. Clues include definitions, synonyms, and descriptions.* Point out that good readers know how to determine word meanings by using clues in a text.

Read aloud the following text from page 4 of the Pioneer Edition of *Soaring with Science* as students listen.

#### Forces at Work

But other forces work against [Lindsey]. Friction happens when her skis rub against the snow. It slows her down. For less friction, Lindsey puts wax on her skies. Her skis slide faster.

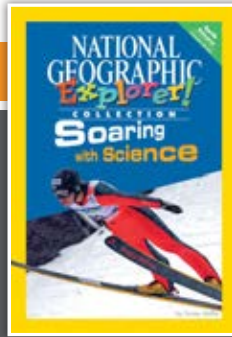
#### Text from Pioneer Edition

Then, think aloud to model how to determine word meaning in a text. *As I read about the laws of motion in this science article, I come across the word friction. I'm not sure what it means, but as I read on, I see that the sentence tells me that friction happens when Lindsey's skis "rub against the snow." The next sentence says that friction "slows her down." So, the author has included a description of the word friction.*

Point out that sometimes words such as “happens when” give a clue that a description will follow. Other clues follow words such as “is called” and “that is.”

Have students explain how to determine the meaning of the word *friction* in the above text. (Possible response: The author describes the meaning of the word by saying that friction happens when Lindsey rubs her skis against the snow. The author also says that the rubbing makes her go slower. So, friction is rubbing that makes something go slower.)

**BL** BELOW LEVEL



**PIONEER EDITION**

GR: P

**Content Connection:** Laws of Motion

**Science Vocabulary**

Use Wordwise on page 7 to introduce new words:

*force*      *friction*      *lift*

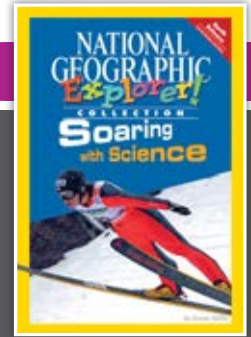
Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- Main Idea** What forces slow Lindsey down as she skis down the hill? (Friction with the ground and the air that she has to push through slow her down.)
- Determine Word Meanings** What force pulls objects down to Earth? (Gravity pulls objects down to Earth.)
- Main Idea** Which force helps Lindsey stay in the air after she jumps? (Lift helps Lindsey stay in the air.)
- Analyze** Which of Newton’s laws explains why ski jumpers can’t stay in the air forever? (Newton’s first law says that a moving object keeps moving at the same speed and in the same direction unless a force acts on it. The force of gravity pulls Lindsey down and keeps her from soaring forever.)
- Explain** What law of motion is in use when you give someone a big push on a swing? (Newton’s first law is in use. The law says that a resting object will stay at rest unless a force like a big push gets it going.)

**OL** ON LEVEL 670L



**PATHFINDER EDITION**

Lexile: 670L | GR: R

**Content Connection:** Laws of Motion

**Science Vocabulary**

Use Wordwise on page 7 to introduce new words:

*force*      *friction*      *lift*

Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- Main Idea** Name two forces that slow Lindsey down as she skis down the hill. (Friction and the force of the air that she has to push through slow her down.)
- Determine Word Meanings** What force pulls objects down to Earth? (Gravity pulls objects down to Earth.)
- Main Idea** Which force helps Lindsey stay in the air after she jumps? (Lift helps Lindsey stay in the air.)
- Analyze** Which of Newton’s laws explains why ski jumpers can’t stay in the air forever? (Newton’s first law says that a moving object keeps moving at the same speed and in the same direction unless a force acts on it. The force of gravity pulls Lindsey down and keeps her from soaring forever.)
- Draw Conclusions** According to Newton’s second law, what do you need to do to throw a ball farther? (You need to throw the ball harder. That means you throw it with a more powerful force.)

**Check & Reteach**

**OBJECTIVE:** Determine Word Meanings

Have partners take turns determining the meaning of the word *motion* on page 3. (*Motion* means “movement.” The phrase “how all objects move”/“how things move” appears in the sentence after the sentence with *motion*. The phrase defines what motion is.)

For students who cannot determine word meanings, reteach with the term *lift* on page 6. Say: *The paragraph discusses Lindsey’s jump. It says that she gets lift when she jumps. What text helps you understand the meaning of lift?* Have students skim the paragraph. Record the text. (“Lift helps things/objects stay in the air.”) Guide students to determine that the author has provided a definition. Then have students explain the meaning of *lift*. (Sample response: Lift is a force that helps people and things stay up in the air.)

**BL** BELOW LEVEL 560L

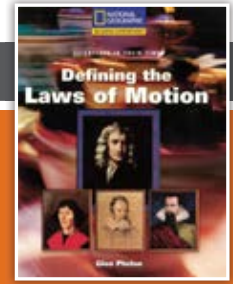


**Forces That Move**  
by Kate Boehm Jerome

Content Connection:  
**Forces**

Expository Nonfiction | Pages: 36 | Lexile: 560L | GR: Q

**BL** BELOW LEVEL 680L



**Defining the Laws of Motion**  
by Glen Phelan

Content Connection:  
**Motion**

Expository Nonfiction | Pages: 40 | Lexile: 680L | GR: W

## OBJECTIVES

### Thematic Connection: Forces and Motion

#### Read and Comprehend Literature

- Draw Conclusions to Comprehend Text
- Explain Text Structure: Compare and Contrast

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

- Practice Master SG7.1, page SG28
- Practice Master SG7.2, page SG29
- Practice Master SG7.3, page SG30
- Practice Master SG7.7, page SG34

### TECHNOLOGY ONLY

Digital Library: Runners

## SUGGESTED PACING

- DAY 2 Introduce and read pages 1–15
- DAY 3 Read pages 16–36 and discuss
- DAY 4 Reteach or conduct intervention
- DAY 5 Connect across texts

**Summary** Forces cause things to move, stop, and change direction. Gravity is a force that acts on your body all the time. It can also make an object change direction. When you toss a ball into the air, you use force to push it away from Earth, and it is gravity that pulls the ball down again. Friction is a force that makes things stop. Snowboarders, swimmers, and other people use forces, such as friction, to help control their motion.

**Activate Prior Knowledge** Ask: *What do you do when you want to move fast? How do you stop moving?*

**Build Background** Display **Digital Library** photo of students running. Say: *You need to use force to run. You use your muscles to move your legs and arms. You push against the ground to start moving. When you want to stop, you use a force called friction.*

**Story Words** Use **Practice Master SG7.1** to extend vocabulary.

- cause, page 4
- direction, page 7
- lessen, page 14
- smooth, page 20
- strength, page 18

## PROGRAM RESOURCES

### PRINT & TECHNOLOGY

- Practice Master SG7.1, page SG28
- Practice Master SG7.2, page SG29
- Practice Master SG7.4, page SG31
- Practice Master SG7.7, page SG34

### TECHNOLOGY ONLY

Digital Library: Telescope

## SUGGESTED PACING

- DAY 2 Introduce and read pages 1–13
- DAY 3 Read pages 14–29
- DAY 4 Read pages 30–40 and discuss
- DAY 5 Connect across texts

**Summary** During the European Renaissance (1300s–1600s), scientists helped change prevailing beliefs about motion and the universe. Nicolaus Copernicus of Poland and Galileo Galilei of Italy advanced the idea that Earth and other planets revolve around the sun. In Germany, Johannes Kepler showed that planets' orbits are ellipses, not perfect circles. Later, British physicist and mathematician Isaac Newton built on all these ideas. It was Newton who proved that gravity pulls any two objects together and who defined the three laws of motion.

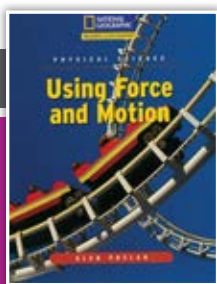
**Activate Prior Knowledge** Ask: *What scientists can you name? Do you know what discoveries they made?*

**Build Background** Use the photo of a telescope from the **Digital Library** to show how scientists changed people's understanding of the universe. Say: *In the 1600s, a scientist named Galileo made a telescope that let people see distant stars.*

**Story Words** Use **Practice Master SG7.1** to extend vocabulary.

- curious, page 15
- model, page 10
- prove, page 16
- reaction, page 33
- rotate, page 12

**OL** ON LEVEL 740L



**Using Force and Motion**

by Glen Phelan

Content Connection:  
**Motion, Gravity, and Friction**

Expository Nonfiction | Pages: 32 | Lexile: 740L | GR: W

**AL** ABOVE LEVEL 860L



**The Science of Hitting a Home Run**

by Jim Whiting

Content Connection:  
**Forces and Motion**

Expository Nonfiction | Pages: 32 | Lexile: 860L | GR: T

**COMMON CORE STANDARDS**

**Reading**

Read and Comprehend Literature	CC.4.Rlit.10
Describe Text Structure	CC.4.Rinf.5
Summarize	CC.4.Rinf.2

**Writing**

Write Over Shorter Time for Specific Tasks CC.4.W.10

**Speaking and Listening**

Draw on Preparation to Explore Ideas CC.4.SL.1.a

**Language and Vocabulary**

Acquire and Use Academic Words CC.4.L.6

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

Practice Master SG7.1, page SG28  
Practice Master SG7.2, page SG29  
Practice Master SG7.5, page SG32  
Practice Master SG7.7, page SG34

**TECHNOLOGY ONLY**

Digital Library: Roller Coaster

**SUGGESTED PACING**

DAY 2 Introduce and read pages 1–11  
DAY 3 Read pages 12–21  
DAY 4 Read pages 22–32 and discuss  
DAY 5 Connect across texts

**Summary** Any time you see movement, forces are at work. Forces are pushes and pulls, and they contribute to everything from the movements of planets to the flow of blood. Gravity is a force that acts on anything with mass. The pull of gravity depends on an object’s mass. Friction is a force that slows or stops motion. Newton’s three laws of motion explain how objects move, including inertia, friction, acceleration, actions, and reactions.

**Activate Prior Knowledge** Ask: *What have you tried that makes it easier to run?* (Possible responses: wearing different shoes, running on different surfaces)

**Build Background** Display the photo of a coaster from the **Digital Library**. Say: *Many forces are in action in a coaster. The car moves on the track and people move in the cars.*

**Story Words** Use **Practice Master SG7.1** to extend vocabulary.

apply, page 10	conclude, page 13	reaction, page 19
reduce, page 11	resist, page 10	

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

Practice Master SG7.1, page SG28  
Practice Master SG7.2, page SG29  
Practice Master SG7.6, page SG33  
Practice Master SG7.7, page SG34

**TECHNOLOGY ONLY**

Digital Library: Baseball Player

**SUGGESTED PACING**

DAY 2 Introduce and read pages 1–13  
DAY 3 Read pages 14–23  
DAY 4 Read pages 24–32 and discuss  
DAY 5 Connect across texts

**Summary** Forces combine every time a batter hits a home run. First, the windup transfers momentum from the pitcher’s body to the ball. Adding spin creates a curveball by changing airflow around the ball. Then, a strong swing transfers kinetic energy from the bat to the ball. Last comes the hit. Landing the ball in a bat’s “sweet spot” limits vibrations in the bat, so that more energy gets to the ball. Using an upswing adds lift to keep the ball flying longer. Hot weather and high elevation are also great for home runs, since thinner air creates less drag.

**Activate Prior Knowledge** Ask: *What is the most exciting part of a baseball game or other ball game?*

**Build Background** Display the photo of a baseball player from the **Digital Library**. Say: *In sports, players use motion. In many sports, players transfer, or move, energy from their bodies to a ball.*

**Story Words** Use **Practice Master SG7.1** to extend vocabulary.

determine, page 14	direction, page 23	impact, page 20
transfer, page 7	vary, page 12	

## BL BELOW LEVEL 560L

### Forces That Move

by Kate Boehm Jerome

#### Build Comprehension

- **Explain** *What forces describe the motion of a ball you throw into the air?* (Possible response: You use force to push the ball into the air. Then, gravity pulls the ball toward Earth. The ball may roll a bit, but then friction makes it stop.)
- **Draw Conclusions** *How might ice or water affect the amount of friction when you walk outside after a storm?* (Possible response: Ice or water can reduce the amount of friction, so you slide—or fall—more easily.)

#### Writing Options

- **List** Have students list three examples of gravity and three examples of friction. For each list item, students should tell how the force affects motion.
- **Descriptive Paragraph** Have students choose a photo from the book and write a paragraph that explains the forces it shows. Suggest that students begin by describing what the photo shows and then describe the forces in action.
- **Journal Entry** Have students describe how a favorite sport or hobby that involves movement uses gravity and friction.

## BL BELOW LEVEL 680L

### Defining the Laws of Motion

by Glen Phelan

#### Build Comprehension

- **Goal and Outcome** *What did Galileo want to prove with his book *The Starry Messenger*? What was the outcome?* (Possible response: He wanted to prove that Copernicus' model of the universe was correct. The book was popular, but he was put on trial for his writing.)
- **Make Judgments** *Which scientist do you think contributed the most to our understanding of motion and the universe? Support your answer.* (Students should name one of the four scientists discussed in the book, explaining why his ideas were important.)

#### Writing Options

- **Interview Questions** Have students list three questions they would like to ask one of the scientists. Encourage students to trade questions and use the book to discuss the answers.
- **Diary** Have students write a diary entry for Copernicus, Galileo, Kepler, or Newton. For example, after reviewing page 25, students might write about the day Newton made a discovery as he watched an apple fall to the ground.
- **Journal Entry** Invite students to describe one or two ways they have seen Newton's laws of motion in action that day.

### Check & Reteach

Ask students to compare and contrast two things or people described in the book they read.

If students have difficulty comparing and contrasting, refer them to their Venn diagram. Ask: *What topics will you compare and contrast? What do the two topics have in common? How is each topic different?*

#### DURING READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Venn Diagram**  
**Compare and Contrast**  
 Use the Venn diagram to take notes about your book as you read.  
 Topic: \_\_\_\_\_  
 Topic: \_\_\_\_\_  
 Use your Venn diagram to tell a partner about the book.

SG7.2 Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**  
**Forces That Move**  
 Review the story words with your group. Then discuss these questions together.

**Story Words**  
 cause  
 direction  
 lessen  
 smooth  
 strength

1. **Analyze Text Features** Look at the photos on pages 10–13. How do the photos show forces in action? What information do you learn from the captions?
2. **Compare and Contrast** Use these questions and the notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** What are two different forces described in Chapter 1?
  - **Things in Common** How are these forces similar?
  - **Differences** What are the most important differences between them?
3. **Synthesize** Review Chapter 2. How does reading about snowboarding help you put together the information about forces in Chapter 1?
4. **Life Question Generalize** Why do scientists need to understand forces that move in order to explore space?

For use with TE pp. 556–559 SG7.3 Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**  
**Defining the Laws of Motion**  
 Review the story words with your group. Then discuss these questions together.

**Story Words**  
 curious  
 model  
 prove  
 reaction  
 rotate

1. **Analyze Text Features** Review Chapter 2. How do the red subheads help you scan for information?
2. **Compare Text Features** Look at the time line and gallery on pages 38–39. How do these features summarize information from the book?
3. **Compare and Contrast** Use these questions and your notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** Which two scientists do you find most surprising?
  - **Things in Common** What do they have in common? Did they study similar topics? Did they experience similar problems?
  - **Differences** How was each scientist unique? What discoveries did each scientist make? What happened in his life?
4. **Synthesize** Based on your reading about each of the four scientists, what does it take to be a good scientist?
5. **Life Question Generalize** How did early scientists help make current space travel possible?

For use with TE pp. 556–559 SG7.4 Unit 7 | Exploring Space



**OL** ON LEVEL 740L

**Using Force and Motion**  
by Glen Phelan

**Build Comprehension**

- **Explain** *What are force, mass, and acceleration? How are they related?* (A force is a push or pull; mass is the amount of matter in something; acceleration is how fast an object changes speed or direction. The more mass an object has, the more force is needed to change its motion.)
- **Goal and Outcome** *What are two things people do to reduce friction?* (Possible responses: wear streamlined equipment, add lubricants, wax skis, use wheels)

**Writing Options**

- **Photo Essay** Have students collect four or five photos that show motion, and invite them to write captions that describe the forces shown in each photo. Encourage students to choose a variety of motions, large and small.
- **Lab Report** Suggest that students try the Hands-On Science experiment on pages 28–29 and write a report that gives their results. Lab reports should describe what students did and explain what happened. Remind students to also answer each of the questions in the “Think” box on page 29.
- **Journal Entry** Invite students to describe the actions and reactions that take place during something they do every day.

**AL** ABOVE LEVEL 860L

**The Science of Hitting a Home Run**  
by Jim Whiting

**Build Comprehension**

- **Explain** *How is energy transferred from the pitch to the hit in a home run?* (The windup transfers energy from the pitcher to the ball. The swing transfers energy from the batter to the bat. The hit transfers energy from the bat to the ball.)
- **Draw Conclusions** *How can studying science help baseball players improve?* (Possible response: Understanding the science behind pitching and hitting can help players learn how to improve their skills and waste less energy.)

**Writing Options**

- **Sports Report** Have students write a news report about the science behind a recent sports game. They can find an article in the newspaper or recall an event they watched and write about how force and motion created an exciting play.
- **Story** What might a baseball think during a home run? Have students write a story about an exciting home run from the point of view of a baseball. Encourage students to include details about how the ball experiences the windup, traveling through the air, and the impact of the hit.
- **Journal Entry** Invite students to write about the forces involved in their favorite sport or activity.



**Connect Across Texts**

**AFTER READING** Form heterogeneous groups, and have each member of the group summarize his or her book. Then have groups use **Practice Master SG7.7** to guide discussion.

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Using Force and Motion**

Review the story words with your group. Then discuss these questions together.

**Story Words**  
apply \_\_\_\_\_  
conclude \_\_\_\_\_  
reaction \_\_\_\_\_  
reduce \_\_\_\_\_  
resist \_\_\_\_\_

1. **Analyze Text Features** Review the diagram on pages 20–21. How does this information help you apply facts about force and motion?
2. **Compare Text Features** Look at the Think Like a Scientist features on pages 17 and 26–27. What do these features have in common? How do they support ideas in the book?
3. **Compare and Contrast** Use these questions and your notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** What do scientists mean by action and reaction?
  - **Things in Common** How are an action and reaction similar?
  - **Differences** How are an action and reaction different?
4. **Synthesize** Describe some of the forces people use when they ride a bicycle.
5. **Think Question** **Generalize** How do people use force and motion to explore space?

For use with TE pp. 526–529 **SG7.5** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**The Science of Hitting a Home Run**

Review the story words with your group. Then discuss these questions together.

**Story Words**  
determine \_\_\_\_\_  
direction \_\_\_\_\_  
impact \_\_\_\_\_  
transfer \_\_\_\_\_  
vary \_\_\_\_\_

1. **Analyze Text Features** Review the Table of Contents on page 3. How can you use this information to help you summarize the book?
2. **Compare Text Features** Review the diagrams on pages 8, 13, and 23. How are these diagrams similar? How are they different?
3. **Compare and Contrast** Use these questions and your notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** What are two kinds of motion that you need to hit a home run?
  - **Things in Common** What do these two motions have in common?
  - **Differences** How are these two motions different?
4. **Synthesize** Compare scoring a basket in basketball with hitting a home run. What do these two motions have in common? How are they different?
5. **Think Question** **Generalize** How is the science of hitting a home run related to the science of exploring space?

For use with TE pp. 526–529 **SG7.6** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Connect Across Texts**

Share the story words with your group. Then take notes as you listen to each summary.

Forces That Move
Defining the Laws of Motion
Using Force and Motion
The Science of Hitting a Home Run

Compare and contrast the books you have read. Discuss these questions with your group.

1. What did you learn about how force and motion are related?
2. What do these books tell you about forces that you use every day?
3. **Think Question** What ideas about force and motion do you think scientists use when they are exploring space?

For use with TE pp. 526–529 **SG7.7** Unit 7 | Exploring Space

## OBJECTIVES

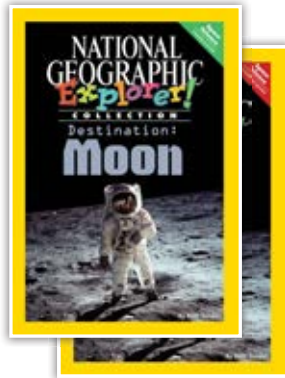
### Thematic Connection: Moon, Space, and Stars

Read and Comprehend Informational Text

Use Details and Examples to Explain Text

## Destination: Moon by Beth Geiger

**Summary** *Destination: Moon* describes the Constellation Program, the plan NASA developed in the mid-2000s to send astronauts to the moon. It also tells how NASA planned to make the moon's environment livable for humans. In "Destination: Moon," author Beth Geiger explains that the first part of the plan was to get people to the moon by 2020. If approved, the plan would also include constructing a space base there and using that base to launch expeditions to Mars.



Rockets would carry parts for the base in pieces to the moon. The moon's South Pole, with warmer temperatures, might provide the best environment for the base. "The Right Stuff" describes how NASA prepares for such missions. For example, people test-drive moon vehicles in deserts that resemble the moon's terrain.

**Activate Prior Knowledge** Display the front cover and ask: *Why do people send astronauts to the moon?* (Possible responses: to learn; to discover new life) Have students share what they know about the moon.

**Build Background** Tell students that an American first walked on the moon in 1969, and explain that 12 people all together have landed there. Recently, the United States developed a plan to build a space base on the moon. Use the illustration on page 8 to show the proposed base. Have students describe it. Explain that although this plan was cancelled, space exploration still continues.

## PROGRAM RESOURCES

### PRINT ONLY

*Destination: Moon*, Pioneer Edition

*Destination: Moon*, Pathfinder Edition

### TECHNOLOGY ONLY

My Vocabulary Notebook

## COMMON CORE STANDARDS

### Reading

Refer to Details and Examples When Explaining Text CC.4.Rinf.1  
 Read and Comprehend Informational Text CC.4.Rinf.10

### Language

Acquire and Use Domain-Specific Words CC.4.L.6

## Mini Lesson

### Use Details and Examples to Explain Text

Explain: *Details and examples in a text help prove something or help people understand new concepts.* Point out that good readers know how to use details and examples when explaining the ideas in a text.

Read aloud the following text from page 4 of the Pioneer Edition of *Destination: Moon* as students listen.

### Blastoff!

[NASA's plan] uses two spacecraft. They are *Orion* and *Altair*.

First, a rocket will blast *Orion* into space. It will orbit Earth.

A rocket will blast *Altair* into space, too. *Altair* will connect with *Orion*. Then, both ships will blast off to the moon together.

### Text from Pioneer Edition

Then, think aloud to model how to use details to explain a text.

*I want to explain the idea that NASA's plan uses two spacecraft.*

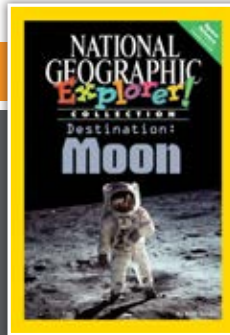
*So, I will use the following details that describe the plan:*

- *First, a rocket will blast Orion into space.*
- *A rocket will blast Altair into space, too.*
- *Altair will connect with Orion.*
- *Then, both ships will blast off to the moon together.*

Point out that authors may also include examples that help explain a text.

Have students use the details identified above to explain NASA's plan. (Possible response: Scientists at NASA plan to use two spacecraft to go to the moon. First, a rocket will blast *Orion* into space. Then, a rocket will blast *Altair* into space. *Altair* will connect with *Orion*, and both ships will go to the moon together.)

**BL** BELOW LEVEL 530L



**PIONEER EDITION**

Lexile: 530L | GR: P

**Content Connection:** The Moon

**Science Vocabulary**

Use Wordwise on page 9 to introduce new words:

*crater lunar rover orbit*

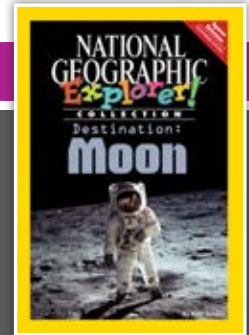
Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- Describe** What are the three main parts of NASA's Constellation Program? (The first part is to reach the moon by 2020 to study it. The second part is to build a base on the moon so astronauts can live there. The third part is to use the moon as a base to get to Mars.)
- Details** Why can't people live on the moon? (Possible response: There is no air and probably no water. Also, the surface of the moon can reach 253° Fahrenheit.)
- Contrast** How are Earth and the moon different? (Possible responses: Earth has air, but the moon does not. The moon is very hot or very cold, while Earth has comfortable temperatures. Earth is a lot bigger than the moon, and the days on Earth are a lot shorter than the days on the moon.)
- Use Details and Examples to Explain Text** Why is NASA planning to launch rockets from the moon to Mars? (Gravity on the moon is weaker than on Earth. So, rockets can lift off more easily from the moon than from Earth.)
- Evaluate** Would you want to explore the moon? Why or why not? (Possible response: I would like to explore the moon. I want to see what the moon looks like close up and discover whether people could ever really live there.)

**OL** ON LEVEL 620L



**PATHFINDER EDITION**

Lexile: 620L | GR: R

**Content Connection:** The Moon

**Science Vocabulary**

Use Wordwise on page 9 to introduce new words:

*friction module orbit*

Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- Describe** What are the three main parts of NASA's Constellation Program? (Part 1—to reach the moon by 2020 to study it; Part 2—to build a base on the moon so astronauts can live there; Part 3—to use the moon as a base to get to Mars)
- Details** What conditions make living on the moon so difficult? (Possible responses: There is dangerous dust but no air and probably no water. People's muscles and bones weaken. Also, the surface of the moon, which has deep craters, can reach 253° Fahrenheit.)
- Contrast** How are Earth and the moon different? (Possible responses: Earth has air, but the moon does not. The moon is very hot or very cold, but Earth has comfortable temperatures. Earth is a lot bigger than the moon, and the days on Earth are a lot shorter than the days on the moon.)
- Use Details and Examples to Explain Text** Why is NASA planning to launch rockets from the moon to Mars? (Gravity on the moon is weaker than on Earth. So, rockets can lift off more easily from the moon than from Earth.)
- Evaluate** If you could invent something that would make life on the moon better, what would it be? (Possible response: I would invent something that produces air and water.)

**Check & Reteach**

**OBJECTIVE:** Use Details and Examples to Explain Text

Have partners take turns using details from page 6 to explain why it is difficult to land on the moon. (deep craters, rocky surface)  
For students who cannot use details and examples to explain text, reteach with the paragraph describing lunar habitats on page 11. Say: *The paragraph says that astronauts will live in lunar habitats. What details and example explain the habitats?* Have students skim the text for details and the example. Make a class list to record them. (Details: light to carry; made in parts; people will eat, sleep, work there; Example: a little inflatable house) Guide students to refer to the details and example to explain lunar habitats.

## BL BELOW LEVEL



### Lighter on the Moon

by Jeanne and Bradley Weaver

Content Connection:  
**Gravity in Space**

Expository Nonfiction | Pages: 16 | GR: N

## BL BELOW LEVEL 590L



### Exploring Space

by Kate Boehm Jerome

Content Connection:  
**Space Exploration**

Expository Nonfiction | Pages: 32 | Lexile: 590L | GR: T

### OBJECTIVES

**Thematic Connection: Moon, Space, and Stars**

Read and Comprehend Literature

- Draw Conclusions to Comprehend Text
- Explain Concepts in Texts

### PROGRAM RESOURCES

#### PRINT & TECHNOLOGY

- Practice Master SG7.8, page SG35
- Practice Master SG7.9, page SG36
- Practice Master SG7.10, page SG37
- Practice Master SG7.14, page SG41

#### TECHNOLOGY ONLY

Digital Library: Astronaut

### SUGGESTED PACING

- DAY 2 Introduce and read pages 1–9
- DAY 3 Read pages 10–16 and discuss
- DAY 4 Reteach or conduct intervention
- DAY 5 Connect across texts

**Summary** Objects are lighter on the moon because of gravity. Every object has gravity, or a force that pulls. On Earth, gravity keeps us on the ground and determines our weight. The amount of gravity an object has depends on its size. The moon is smaller than Earth, so it has less gravity. In fact, gravity on Earth is six times greater than gravity on the moon. Thus, to find out how much you would weigh on the moon, divide your weight on Earth by 6. For example, in his spacesuit, Neil Armstrong weighed about 360 pounds on Earth, but only about 60 pounds on the moon.

**Activate Prior Knowledge** Ask: *How do you find out how much you weigh?* (Possible response: use a scale)

**Build Background** Display the **Digital Library** photo of an astronaut floating in space. Say: *On Earth, gravity keeps us on the ground, but there is no gravity in space. There is gravity on the moon, but not very much compared to on Earth.*

**Story Words** Use **Practice Master SG7.8** to extend vocabulary.

- |                          |                         |                           |
|--------------------------|-------------------------|---------------------------|
| <i>amount</i> , page 8   | <i>compare</i> , page 8 | <i>determine</i> , page 7 |
| <i>farther</i> , page 10 | <i>object</i> , page 8  |                           |

### PROGRAM RESOURCES

#### PRINT & TECHNOLOGY

- Practice Master SG7.8, page SG35
- Practice Master SG7.9, page SG36
- Practice Master SG7.11, page SG38
- Practice Master SG7.14, page SG41

#### TECHNOLOGY ONLY

Digital Library: The Earth and Moon

### SUGGESTED PACING

- DAY 2 Introduce and read pages 1–12
- DAY 3 Read pages 13–23
- DAY 4 Read pages 24–32 and discuss
- DAY 5 Connect across texts

**Summary** Our solar system has two kinds of planets. The inner planets—Mercury, Venus, Earth, and Mars—are solid and rocky. The outer planets—Jupiter, Saturn, Uranus, and Neptune—are made up mostly of gases. Asteroids, meteoroids, and comets also orbit the sun, which is the closest star. Our solar system is one tiny part of the Milky Way Galaxy. To explore space, scientists first launched satellites and then made multistage rockets. Today, a permanent space station relies on both astronauts and robonauts.

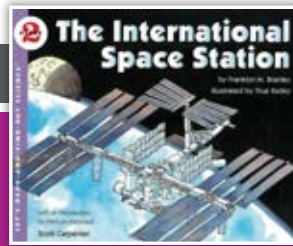
**Activate Prior Knowledge** Ask: *What changes do you notice when you look at the sky on different nights?* (Possible responses: The phases of the moon change. The stars change positions.)

**Build Background** Use the photo of Earth and the moon from the **Digital Library**. Say: *The moon is 384,000 km (238,900 miles) from Earth. It orbits, or moves around, Earth in about 27 days.*

**Story Words** Use **Practice Master SG7.8** to extend vocabulary.

- |                             |                          |                          |
|-----------------------------|--------------------------|--------------------------|
| <i>accomplish</i> , page 16 | <i>advance</i> , page 14 | <i>deliver</i> , page 23 |
| <i>permanent</i> , page 23  | <i>revolve</i> , page 7  |                          |

**OL** ON LEVEL 720L

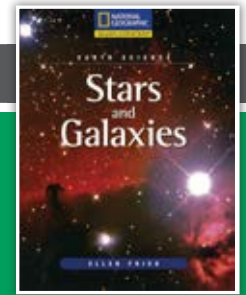


**The International Space Station**  
by Franklyn M. Branley

Content Connection:  
**Space Station**

Expository Nonfiction | Pages: 32 | Lexile: 720L | GR: Q

**AL** ABOVE LEVEL 830L



**Stars and Galaxies**  
by Ellen Fried

Content Connection:  
**Space**

Expository Nonfiction | Pages: 32 | Lexile: 830L | GR: T

**COMMON CORE STANDARDS**

**Reading**

Read and Comprehend Literature	CC.4.Rlit.10
Refer to Details and Examples When Explaining Text	CC.4.Rinf.1
Explain Concepts	CC.4.Rinf.3
Summarize	CC.4.Rinf.2

**Writing**

Write Over Shorter Time for Specific Tasks CC.4.W.10

**Speaking and Listening**

Draw on Preparation to Explore Ideas CC.4.SL.1.a

**Language and Vocabulary**

Acquire and Use Academic Words CC.4.L.6

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

Practice Master SG7.8, page SG35  
Practice Master SG7.9, page SG36  
Practice Master SG7.12, page SG39  
Practice Master SG7.14, page SG41

**TECHNOLOGY ONLY**

Digital Library: Satellite

**SUGGESTED PACING**

DAY 2 Introduce and read pages 1–13  
DAY 3 Read pages 14–25  
DAY 4 Read pages 26–32 and discuss  
DAY 5 Connect across texts

**Summary** Twenty countries worked together to create the International Space Station, a structure that orbits Earth. Parts are built on Earth and then attached in space. Solar cells collect sunlight and turn it into energy for the research station. Astronauts stay healthy on board by getting exercise and eating well, including fresh food brought by shuttle. Space suits keep astronauts safe outside. An escape vehicle is ready in case of emergency.

**Activate Prior Knowledge** Ask: *When have you been on a team with people from other places?*

**Build Background** Display the photo of a satellite from the **Digital Library**. Say: *A satellite is a human-made object that orbits Earth. The International Space Station orbits Earth and is large enough to house several scientists.*

**Story Words** Use **Practice Master SG7.8** to extend vocabulary.

<i>intense</i> , page 19	<i>international</i> , title	<i>program</i> , page 2
<i>structure</i> , page 16	<i>vehicle</i> , page 12	

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

Practice Master SG7.8, page SG35  
Practice Master SG7.9, page SG36  
Practice Master SG7.13, page SG40  
Practice Master SG7.14, page SG41

**TECHNOLOGY ONLY**

Digital Library: Milky Way

**SUGGESTED PACING**

DAY 2 Introduce and read pages 1–13  
DAY 3 Read pages 14–23  
DAY 4 Read pages 24–32 and discuss  
DAY 5 Connect across texts

**Summary** Earth's sun is one star out of billions in the universe. Most stars go through three main life stages. Material in a huge cloud of gas and dust forms a ball, which heats up and releases heat and light. The star shines for billions of years and finally runs out of hydrogen and burns out slowly. Some large stars end in huge explosions called supernovas. Galaxies are groups of billions of stars and are classified as spiral (like the Milky Way), elliptical, or irregular.

**Activate Prior Knowledge** Ask: *What do you see when you look up at a night sky?*

**Build Background** Display the photo of the Milky Way from the **Digital Library**. Say: *A galaxy is a huge collection of stars and other material, held together by gravity. All of the stars you can see using only your eyes are part of the Milky Way galaxy. Scientists use telescopes and other tools to learn about more distant galaxies.*

**Story Words** Use **Practice Master SG7.8** to extend vocabulary.

<i>contract</i> , page 12	<i>expand</i> , page 13	<i>prove</i> , page 16
<i>theory</i> , page 19	<i>vast</i> , page 7	

## BL BELOW LEVEL

### Lighter on the Moon

by Jeanne and Bradley Weaver

#### Build Comprehension

- **Explain** *Why do things weigh less on the moon than they do on Earth? Explain.* (Things weigh less on the moon because the moon has less gravity than Earth. It has less gravity because it is smaller than Earth, and gravity is determined by the size of an object.)
- **Draw Conclusions** *Imagine there was no gravity on Earth. What would happen if you threw a ball into the air?* (Possible responses: It would float; it wouldn't come back down.)

#### Writing Options

- **Chart** Have students make a chart of weights of five objects on Earth and on the moon. Encourage them to include people, pets, and other objects, such as cars. They can use the Internet or reference sources to find weights.
- **Travel Brochure** Have students write a travel brochure for people in the future who are visiting the moon. The brochure should explain what it will be like to walk on the moon and how visitors can figure out how much they will weigh there.
- **Journal Entry** Invite students to write about what they would like to do if they were on the moon. Encourage them to describe actions that would be difficult or impossible on Earth.

## BL BELOW LEVEL 590L

### Exploring Space

by Kate Boehm Jerome

#### Build Comprehension

- **Goal and Outcome** *What steps helped Americans reach the goal of landing on the moon in 1969?* (Possible responses: launching satellites; designing multistage rockets; understanding conditions in space)
- **Make Judgments** *Is exploring space important for people who are not astronauts?* (Possible response: Yes, the discoveries benefit everyone. For example, technology created for space exploration also helps people on Earth.)

#### Writing Options

- **Thank-You Note** Have students write a thank-you note to an astronaut for his or her work. Encourage students to tell why the astronaut's achievements are important.
- **Puzzle** Have students write sentences using Glossary terms (page 31). Ask students to copy the sentences, leaving a blank space for each term. Students can then read aloud their sentences and have others in their group say the missing term.
- **Journal Entry** Invite students to share the fact about space that they found most surprising or interesting and tell why.

### Check & Reteach

Ask students to compare and contrast two things or people described in the book they read.

If students have difficulty comparing and contrasting, refer them to their Venn diagram. Ask: *What topics will you compare and contrast? What do the two topics have in common? How is each topic different?*

#### DURING READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Information Chart**

**Compare and Contrast**

Use the information chart to take notes about your book as you read.

Page	What It Says	What It Means

Use your information chart to tell a partner about the book.

For use with TE pp. 5015-5016 **SG7.9** Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Lighter on the Moon**

Review the story words with your group. Then discuss these questions together.

Story Words
amount
compare
determine
farther
object

1. **Analyze a Science Report** Review the heads on pages 3, 6, 10, 12, and 16. How do these heads help you understand the information in this science report?
2. **Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 7-9. What does the text say about the connection between gravity and weight?
  - **What It Means** Use your own words to explain how gravity determines weight.
  - **What It Says and What It Means** Review page 10. What did astronauts say it felt like to walk on the moon? Explain their statement in your own words.
3. **Synthesize** Gravity on Jupiter is more than two times greater than gravity on Earth. How would your weight change if you were on Jupiter? Why?
4. **Big Question Generalize** Why do astronauts need to know how much they will weigh in space?

For use with TE pp. 5015-5016 **SG7.10** Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Exploring Space**

Review the story words with your group. Then discuss these questions together.

Story Words
accomplish
advance
deliver
permanent
resolve

1. **Analyze a Science Report** Review the Introduction on pages 4-5. How do these pages prepare readers for the information in this science report?
2. **Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 8-9. How are the planets in our solar system divided into two groups?
  - **What It Means** Use your own words to explain why these categories make sense.
  - **What It Says and What It Means** Review pages 16-17. What goal did scientists accomplish by creating multistage rockets? Explain how this invention helped advance space exploration.
3. **Synthesize** Review Chapter 3. How do astronauts and robots work together to explore space?
4. **Big Question Generalize** What tools do scientists use to explore space?

For use with TE pp. 5015-5016 **SG7.11** Unit 7 | Exploring Space

**OL** ON LEVEL 720L

**The International Space Station**  
by Franklyn M. Branley

**Build Comprehension**

- **Form Opinions** *Could the International Space Station have been created by just one country? Why or why not?* (Possible response: Because it is a large, complicated program, it probably required the help of many countries.)
- **Make Comparisons** *How is the International Space Station different from other space programs?* (Possible responses: It is a permanent structure; astronauts are in space for three to six months; it was created by 20 countries working together.)

**Writing Options**

- **Dialogue** Have students write a dialogue between two or more astronauts on the International Space Station. Students can choose a specific location on the Station and have astronauts describe what they do there.
- **News Report** Suggest that students write a short news report about the arrival of a new part at the International Space Station.
- **Journal Entry** Invite students to tell whether they would like to become astronauts on the International Space Station. Encourage them to explain which activities they would enjoy or find challenging.

**AL** ABOVE LEVEL 830L

**Stars and Galaxies**  
by Ellen Fried

**Build Comprehension**

- **Form Opinions** *Do you think there are other solar systems with planets? Why or why not?* (Possible response: There are billions and billions of other stars, so it is probable that some of them have planets similar to those in our solar system.)
- **Draw Conclusions** *Why are astronomers also historians?* (Possible response: The light we see from space has traveled for many, many years, so astronomers who study light are actually looking at the past.)

**Writing Options**

- **Expanded Definition** Have students choose a Glossary term (page 31) and write an expanded definition that includes examples and explanations. Encourage students to share the definitions with students who have not yet read the book.
- **Poem** Invite students to write a short poem about stars, using rhythm, rhyme (words that end with the same sounds), and alliteration (words that begin with the same sound).
- **Journal Entry** Invite students to write about how they feel when they think about the vast distances of outer space.



**Connect Across Texts**

**AFTER READING** Form heterogeneous groups, and have each member of the group summarize his or her book. Then have groups use **Practice Master SG7.14** to guide discussion.

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**The International Space Station**

Review the story words with your group. Then discuss these questions together.

Story Words
interact
international
program
structure
vehicle

1. **Analyze a Science Report** Review the diagrams on pages 6, 9, 12–13, and 16. How do these diagrams help you understand the International Space Station?
2. **Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 16–17. What does the text say about energy on the Station?
  - **What It Means** Use your own words to explain how the Station gets the energy it needs.
  - **What It Says and What It Means** Review pages 14–15. How does the Station keep from crashing to Earth? What does this tell you about the effect of Earth's gravity on the Station?
3. **Synthesize** How is living on the Space Station a kind of research? What do astronauts learn when by staying on the Station for 3 to 6 months?
4. **Discussion Question Generalize** Why is it important that many countries work together to create the International Space Station?

For use with TE pp. 5022–5029 **SG7.12** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Stars and Galaxies**

Review the story words with your group. Then discuss these questions together.

Story Words
contract
expand
prove
theory
vast

1. **Analyze a Science Report** Review page 8. What kinds of information does this science report include to help you understand distances in space?
2. **Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 12–13. What does the text say about how stars contract and expand during their life?
  - **What It Means** Use your own words to explain the life stages of a star.
  - **What It Says and What It Means** Review page 19. How does the text describe the big bang theory? Explain this theory in your own words.
3. **Synthesize** How would you describe Earth's position in the universe?
4. **Discussion Question Generalize** How do scientists use tools to explore the vast universe?

For use with TE pp. 5022–5029 **SG7.13** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Connect Across Texts**

Share the story words with your group. Then take notes as you listen to each summary.

Lighter on the Moon
Exploring Space
The International Space Station
Stars and Galaxies

Compare and contrast the books you have read. Discuss these questions with your group.

1. How does each book add to your understanding of outer space?
2. How might you apply the information in these books to your everyday life?
3. **Discussion Question** What are some of the most important topics that scientists need to understand before they explore space?

For use with TE pp. 5022–5029 **SG7.14** Unit 7 | Exploring Space

### OBJECTIVES

#### Thematic Connection: Exploring Space

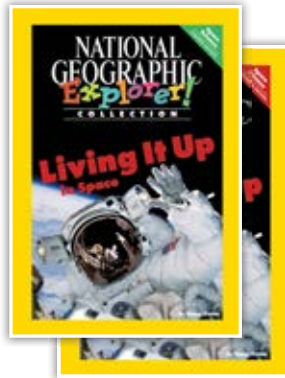
Read and Comprehend Informational Text

Comprehend Visual Information

## Living It Up in Space

by Nancy Finton

**Summary** *Living It Up in Space* explores how astronauts live and work in the International Space Station (ISS), and how life in space and on Earth differ. The main article describes how 16 countries, including the United States, are working together to build the ISS. Astronauts on the station do science experiments to learn more about both space and Earth. Because of the low gravity, astronauts sleep in sleeping bags hanging from walls and take sponge baths instead of showers. They eat food that is specially packaged.



Two diagrams follow: “International Space Station,” showing the parts of the station, and “Suited for Spacewalking,” identifying the parts of a space suit. In “Out of This World!” students learn that astronauts are skilled in math and science and can work as a team. They also discover why fire is the biggest danger on the ISS—there is no escape!

#### Activate Prior Knowledge

Display the front cover and ask: *What do astronauts do?* (Possible responses: explore space; walk on the moon) *Why do they wear spacesuits?* (They need the suits for air and safety.)

**Build Background** Explain that the United States and 15 other countries are building the International Space Station—a spacecraft where astronauts work and live. Use pages 6–7 to discuss the Habitation Module. Read aloud its labels. Have students point to the three areas and describe the uses. Point out how the diagram helps describe life in space.

### PROGRAM RESOURCES

#### PRINT ONLY

*Living It Up in Space*, Pioneer Edition

*Living It Up in Space*, Pathfinder Edition

#### TECHNOLOGY ONLY

My Vocabulary Notebook

### COMMON CORE STANDARDS

#### Reading

Interpret Information Presented Visually CC.4.Rinf.7

Read and Comprehend Informational Text CC.4.Rinf.10

#### Language

Acquire and Use Domain-Specific Words CC.4.L.6

### Mini Lesson

#### Comprehend Visual Information

Explain: *Often, scientific texts present information in a visual way to explain key points in the text and to add information. Such visual information often appears in a diagram.* Point out that good readers know how to interpret visual information presented in texts.

Read aloud the following text from page 2 of the Pioneer Edition of *Living It Up in Space* as students listen.

Today, astronauts are working on the **International Space Station**, or ISS. It is a huge spacecraft. It is the astronauts’ home away from Earth.

#### Text from Pioneer Edition

Then, think aloud to model how to comprehend visual information. *In the text, the author says that the ISS is a huge spacecraft. I will interpret the information in the diagram on pages 6–7 to help me understand just how big the spacecraft is. I will read the labels and the corresponding text.*

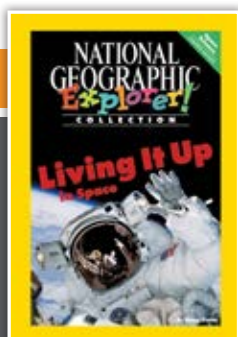
- *The spacecraft has four different modules: two research modules, one service module, and one control module.*
- *One more module, the Habitation Module, may be added.*
- *The station has trusses, beams that hold up parts of the ISS.*
- *The ISS also carries a smaller spacecraft, or return vehicle.*

*All this information in the diagram helps me understand how immense the space station is.*

Have students explain how the visual information identified above adds to their understanding of the ISS. (Possible response: It tells me the spacecraft is made up of many modules and that it is large enough to carry a return vehicle. Also it needs trusses, or beams, to hold up pieces of it. So, now I see just how gigantic the ISS really is.)



**BL** BELOW LEVEL



**PIONEER EDITION**

GR: P

**Content Connection:** Astronauts

**Science Vocabulary**

Use Wordwise on page 5 to introduce new words:

*astronaut experiment gravity International Space Station*

Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- 1. Comprehend Visual Information** What is the International Space Station (ISS)? (It is a huge spacecraft where astronauts live and work. It has different modules and mechanical arms.)
- 2. Cause/Effect** Why do things float in space? (Things float because there is not much gravity in space.)
- 3. Explain** How do astronauts sleep on the ISS? (They strap themselves into sleeping bags on the walls of the spacecraft.) Why? (If they didn't do this, they would float away because there is not much gravity on the ISS.)
- 4. Details** Why do astronauts reuse water? (They reuse water because it must come from Earth and cannot be wasted.)
- 5. Contrast** How is living in space different from living on Earth? (Possible responses: Because of the lack of gravity in space, astronauts float rather than walk around the ISS. They have to sleep in sleeping bags strapped to the walls instead of in beds. Because the food has to come from Earth, astronauts cannot eat fresh food every day like on Earth. Also, the astronauts must exercise a lot because their muscles get soft in low gravity.)

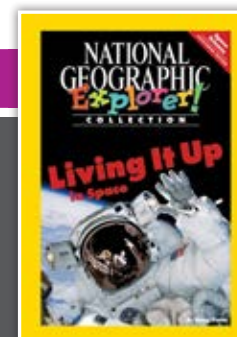
**Check & Reteach**

**OBJECTIVE:** Comprehend Visual Information

Have partners use the diagram on pages 6–7 to explain where astronauts do science experiments. (The ISS has two research modules.) Have them explain how the information adds to their understanding. (I see there are specific places for research.)

For students who cannot comprehend visual information, reteach with the diagram on page 8. Remind students that the text says that a space suit keeps an astronaut alive outside of the ISS. Say: *The diagram shows the parts of a space suit. What information tells how the suit helps keep an astronaut safe?* Have students read the labels to identify the parts that provide safety. Make a class list. (headlights, layers of material, tethers) Have students tell how this information adds to their understanding. (It tells me an astronaut can see in space, stay warm, and not float away.)

**OL** ON LEVEL 800L



**PATHFINDER EDITION**

Lexile: 800L | GR: R

**Content Connection:** Astronauts

**Science Vocabulary**

Use Wordwise on page 5 to introduce new words:

*atmosphere gravity microbe microgravity module orbiting*

Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- 1. Comprehend Visual Information** How is the International Space Station a team effort? (The United States and 15 other countries are working together to build the ISS. For example, Russia has built the service and control modules, and Japan has built a research module.)
- 2. Cause/Effect** What is microgravity? (It is a condition in which the effects of gravity are reduced.) How does it affect astronauts? (Everything floats and must be strapped down.)
- 3. Compare** How does sleeping in space compare to sleeping on Earth? (In space, astronauts don't sleep in a bed like people do on Earth. Astronauts can sleep while floating, but to make sure they don't bump into the spacecraft's controls, they sleep in sleeping bags that hang from the walls.)
- 4. Make Inferences** What training and skills do astronauts have? (Astronauts are trained to live in microgravity and to do science experiments. They must be good at math and science and be able to work well with others.)
- 5. Explain** Why is living in space dangerous? (Possible response: It is dangerous because if a fire breaks out on the ISS, astronauts have nowhere to go to escape the flames.)

**BL** BELOW LEVEL 530L



**Richie's Rocket**

by Joan Anderson

Content Connection:  
**Space Exploration**

Science Fiction | Pages: 32 | Lexile: 530L | GR: N

**BL** BELOW LEVEL 580L



**Stanley in Space PART 1**

by Jeff Brown

Content Connection:  
**Space Exploration**

Fantasy | Pages: 128 | Lexile: 580L | GR: N

**OBJECTIVES**

**Thematic Connection: Exploring Space**

Read and Comprehend Literature

- Form Generalizations to Comprehend Literature
- Comprehend Plot

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

- Practice Master SG7.15, page SG42
- Practice Master SG7.16, page SG43
- Practice Master SG7.17, page SG44
- Practice Master SG7.21, page SG48

**TECHNOLOGY ONLY**

Digital Library: Shuttle in Space

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 1–14
- DAY 3 Read pages 15–32 and discuss
- DAY 4 Reteach or conduct intervention
- DAY 5 Connect across texts

**Summary** A trip to the planetarium inspires Richie to build a rocket on the roof of his apartment building. One summer night, he launches his cardboard ship into space. The ride is exciting, though weightlessness takes some getting used to. A passing astronaut agrees to tow Richie's rocket to the moon. After landing, he leaves the rocket and explores the lunar landscape. Weighing less on the moon makes moving around tricky, but Richie is soon turning somersaults across the rocky mounds. He writes his name in moon dust before the astronaut's ship returns to bring Richie back home.

**Activate Prior Knowledge** Say: *When have you used your imagination to think about a faraway place?*

**Build Background** Display **Digital Library** photo of the Space Shuttle. Say: *The Space Shuttle is one kind of rocket. Rockets are complicated machines with a lot of parts. Your imagination can help you think about what it would be like to ride in a rocket.*

**Story Words** Use **Practice Master SG7.15** to extend vocabulary.

- accomplish, page 30
- gradually, page 22
- complicated, page 6
- pretend, page 8
- curious, page 6

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

- Practice Master SG7.15, page SG42
- Practice Master SG7.16, page SG43
- Practice Master SG7.18, page SG45
- Practice Master SG7.21, page SG48

**TECHNOLOGY ONLY**

Digital Library: Planets

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 1–19
- DAY 3 Read pages 20–41
- DAY 4 Read pages 42–52 and discuss
- DAY 5 Connect across texts

**PART 2:**

See pages SG24–SG27.

**Summary** When the President of the United States receives a message from the planet Tyrra asking for a meeting, he sends Stanley Lambchop and his family. They ride the *Star Scout* to Tyrra, where they find out the Tyrrans ready to attack. Luckily, Tyrrans are only three inches tall, and they quickly agree to a truce. The Tyrrans explain that a failed experiment has destroyed their food supply for a year. Stanley brings the Tyrrans to Earth, so they will have food while Tyrra recovers.

**Activate Prior Knowledge** Ask: *When has your family had to solve a problem when taking a trip away from home?*

**Build Background** Display the drawing of planets from the **Digital Library**. Say: *Some science fiction describes aliens, imagined beings from other planets. Writers use imagination to consider how aliens might be similar to or different from humans.*

**Story Words** Use **Practice Master SG7.15** to extend vocabulary.

- appear, page 5
- reassure, page 16
- extraordinary, page 31
- serious, page 5
- proceed, page 31

**OL** ON LEVEL 640L



**Star Jumper PART 1**  
by Frank Asch

Content Connection:  
**Spaceships**

Science Fiction | Pages: 128 | Lexile: 640L | GR: P

**AL** ABOVE LEVEL 900L



**The Space Mission Adventure PART 1**  
by Sharon M. Draper

Content Connection:  
**Space Camp**

Realistic Fiction | Pages: 128 | Lexile: 900L | GR: U

**COMMON CORE STANDARDS**

**Reading**

Refer to Details and Examples When Explaining Literature	CC.4.Rlit.1
Summarize	CC.4.Rlit.2
Describe a Character	CC.4.Rlit.3
Read and Comprehend Literature	CC.4.Rlit.10
Tell a Story	CC.4.SL.4

**Writing**

Write Over Shorter Time for Specific Tasks CC.4.W.10

**Speaking and Listening**

Draw on Preparation to Explore Ideas CC.4.SL.1.a

**Language and Vocabulary**

Acquire and Use Academic Words CC.4.L.6

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

- Practice Master SG7.15, page SG42
- Practice Master SG7.16, page SG43
- Practice Master SG7.19, page SG46
- Practice Master SG7.21, page SG48

**TECHNOLOGY ONLY**

Digital Library: Astronaut  
in Space Suit

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 1–21
- DAY 3 Read pages 22–49
- DAY 4 Read pages 50–69 and discuss
- DAY 5 Connect across texts

**PART 2:**  
See pages SG24–SG27.

**Summary** To get away from his pesky brother Jonathan, Alex builds the spaceship *Star Jumper* out of cardboard, tape, and household objects. When Jonathan finds out, Alex builds a Micro-Blaster that shrinks his nosy brother. Once Jonathan is back to normal size, Alex uses a Duplicator to make copies of himself, but Jonathan does the same thing. Alex then uses a Disappearing Device to get rid of all the copies. *Star Jumper* is destroyed in the process, but Alex vows to rebuild it.

**Activate Prior Knowledge** Ask: *What is something you know that you are good at doing? How do you know?*

**Build Background** Display photo of an astronaut from the **Digital Library**. Say: *There is no oxygen in space. Astronauts wear suits that pump in oxygen to breathe.*

**Story Words** Use **Practice Master SG7.15** to extend vocabulary.

- accomplishment, page 52
- delay, page 57
- effective, page 14
- install, page 15
- solution, page 40

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

- Practice Master SG7.15, page SG42
- Practice Master SG7.16, page SG43
- Practice Master SG7.20, page SG47
- Practice Master SG7.21, page SG48

**TECHNOLOGY ONLY**

Digital Library: Multi-Axis Trainer

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 1–9
- DAY 3 Read pages 10–33
- DAY 4 Read pages 34–49 and discuss
- DAY 5 Connect across texts

**PART 2:**  
See pages SG24–SG27.

**Summary** Ziggy and his club, the Black Dinosaurs, visit Space Camp where they learn how astronauts train to explore outer space. To prepare for a simulated space mission, Ziggy rides a multi-axis trainer that shows how human bodies react to riding in vehicles where gravity is limited. On the artificial moon, Ziggy finds a mysterious green object. Is it from outer space? The team completes its mission and then meets a real astronaut. Ziggy shows her the green object, which turns out to be the stone from a decorative pin that she had lost.

**Activate Prior Knowledge** Ask: *What kinds of things do people do at camp? How can camps combine learning with fun?*

**Build Background** Display the photo of a multi-axis trainer from the **Digital Library**. Say: *Many tools help astronauts prepare for space travel. A multi-axis trainer has a seat that moves in many directions to show how the body reacts to riding in a space vehicle.*

**Story Words** Use **Practice Master SG7.15** to extend vocabulary.

- focus, page 6
- member, page 22
- possibility, page 8
- realistic, page 12
- suspend, page 44

## BL > BELOW LEVEL 530L

### Richie's Rocket

by Joan Anderson

#### Build Comprehension

- **Draw Conclusions** *What clues tell you that Richie's story could not happen in real life?* (Possible response: Richie's cardboard rocket could not really fly into space; he would not be safe on the moon without a space suit.)
- **Character's Traits** *Is Richie a realistic character? Why or why not?* (Possible response: Yes, Richie is realistic. Even though he does incredible things, his reactions are realistic. His adventures on the moon are probably a dream.)

#### Writing Options

- **Interview Questions** Have students list questions they would like to ask Richie. Ask students to use as many of these words as possible: *who, what, where, when, why, how.*
- **Travel Diary** Have students write a travel diary entry from Richie's point of view.
- **Journal Entry** Invite students to write about something they once pretended to do. Ask them to include details about how they used their imagination to make the game seem real.

## BL > BELOW LEVEL 580L

### Stanley in Space PART 1

by Jeff Brown

#### Build Comprehension

- **Analyze Characters** *Why are the Lambchops unusual astronauts?* (Possible response: They are an ordinary family who treat a trip to space like any other trip or vacation.)
- **Draw Conclusions** *Why do the Tyrrans decide to make peace with Stanley and his family?* (They found out that humans were much bigger than they were and realized they could not win.)

#### Writing Options

- **Character List** Have students list the main characters and add brief descriptions. Encourage students to explain the character's function and what the character is like.
- **E-Mail** Have students write an e-mail from the point of view of Stanley to a friend back home. Encourage students to answer each other's e-mails from the point of view of the friend.
- **Journal Entry** Invite students to predict what will happen to Stanley and his family on Tyrra. Encourage them to describe details from the book that support their predictions.

### Check & Reteach

Ask students to retell the most important events in the plot of the book they read. If students have difficulty identifying plot elements, refer them to their plot diagram. Ask: *What problem does the main character face? What events happen as the character tries to solve this problem?*

#### DURING READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Plot Diagram**

**Story Plot**

Use the plot diagram to take notes about your book as you read.

**Problem:**

↓

**Events:**

↓

**Turning Point:**

↓

**Solution:**

Use your plot diagram to tell a partner about the book.

For use with TE pp. 5218-5221 **SG7.16** Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Richie's Rocket**

Review the story words with your group. Then discuss these questions together.

**Story Words**  
accomplish  
complicated  
curious  
gradually  
pretend

1. **Analyze Dialogue** Review Richie's dialogue on pages 10-14. What do you learn about Richie from the things he says and the way he says them?
2. **Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** What happens to Richie after he goes to the planetarium?
  - **Events** What happens right before Richie's rocket blasts off? Describe three things that happen next.
  - **Turning Point** How does Richie feel on the moon?
  - **Solution** How has Richie changed at the end of the story?
3. **Synthesize** Does Richie pretend to visit the moon or does he really go there? How do you know?
4. **100 Question Generalize** What does Richie have in common with a trained astronaut?

For use with TE pp. 5218-5221 **SG7.17** Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Stanley in Space, Part 1**

Review the story words with your group. Then discuss these questions together.

**Story Words**  
appear  
extraordinary  
proceed  
reassure  
retious

1. **Analyze Dialogue** Review Chapter 1. What do you learn about each member of the Lambchop family from the dialogue?
2. **Compare Dialogue** Review the dialogue in Chapter 5. How do the Tyrrans talk like people from Earth?
3. **Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** Why does the President of the United States contact Stanley and his family?
  - **Events** How do the Lambchops respond to the President's plan? What happens next?
4. **Synthesize** Which adventures in this book are believable and which are not? Why?
5. **100 Question Generalize** Are the Lambchops good astronauts? Why or why not?

For use with TE pp. 5218-5221 **SG7.18** Unit 7 | Exploring Space

**OL** ON LEVEL 640L

**Star Jumper PART 1**  
by Frank Asch

**Build Comprehension**

- **Draw Conclusions** *How can you tell that Alex has spent a lot of time studying space exploration?* (Possible response: Alex's inventions, such as his radar dish and his oxygen generator, are based on real space tools. He knows about things like Van Allen belts.)
- **Form Opinions** *Does Alex deserve to be called a "cardboard genius"?* (Possible response: He deserves the name because of his inventions and his imagination.)

**Writing Options**

- **Description** Have students describe one of Alex's inventions and tell what it shows about him as a character.
- **Blog Post** Ask students to write a blog post as Alex that tells how to make a useful invention for exploring space. Students can describe an invention from the book or create their own. Remind them to state the purpose of the invention.
- **Journal Entry** Invite students to predict what will happen to Alex when he finishes building *Star Jumper*.

**AL** ABOVE LEVEL 900L

**The Space Mission Adventure PART 1**  
by Sharon M. Draper

**Build Comprehension**

- **Character Traits** *What traits does Ziggy have that might make him a good astronaut?* (Possible response: He is curious about things; he is energetic and a good team member; he is a dreamer, which can help an astronaut achieve a goal.)
- **Form Generalizations** *How might going to Space Camp be useful even for students who do not become astronauts?* (Possible response: The camp helps students work together on teams, which they will do in many situations.)

**Writing Options**

- **Travel Brochure** Have students write a travel brochure for Space Camp that briefly describes what campers do and what missions are like.
- **Blog Post** Have students create a blog post from one of the Black Dinosaurs, using first-person point of view. Encourage them to describe one event, such as riding the multi-axis trainer.
- **Journal Entry** Invite students to predict how the Black Dinosaurs will solve the mystery of the green object Ziggy that found on the surface of the artificial moon.



**Connect Across Texts**

**AFTER READING** Form heterogeneous groups, and have each member of the group summarize his or her book. Then have groups use **Practice Master SG7.21** to guide discussion.

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Star Jumper, Part 1**

Review the story words with your group. Then discuss these questions together.

**Story Words**  
accomplishment  
delay  
effective  
install  
solution

1. **Analyze Dialogue** Review Chapter 2. What do you learn about Alex and his brother Jonathan from their dialogue?
2. **Analyze Dialogue** Review pages 45–46. How can dialogue move a story forward?
3. **Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** Alex tells the story in *Star Jumper*. According to Alex, what is his biggest problem?
  - **Events** What inventions does Alex make to find a solution?
4. **Synthesize** Are Alex's inventions effective? Why or why not?
5. **Write Question** **Generalize** How does Alex apply his knowledge of science when he makes his inventions?

For use with TE pp. 5218–5221 **SG7.19** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**The Space Mission Adventure, Part 1**

Review the story words with your group. Then discuss these questions together.

**Story Words**  
focus  
member  
possibility  
realistic  
suspend

1. **Analyze Dialogue** Review Chapter 1. What do you learn about each member of the Black Dinosaurs from their dialogue?
2. **Compare Dialogue** Review the dialogue in Chapter 3. Do the other students at Space Camp speak like the members of the Black Dinosaurs? Find examples to support your answer.
3. **Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** What mystery does Ziggy uncover at Space Camp?
  - **Events** What events lead up to the discovery of this mystery?
4. **Synthesize** How does Space Camp combine learning and fun?
5. **Write Question** **Generalize** Why might astronauts want to take part in Space Camp with students?

For use with TE pp. 5218–5221 **SG7.20** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Connect Across Texts**

Share the story words with your group. Then take notes as you listen to each summary.

Richie's Rocket
Stanley in Space, Part 1
Star Jumper, Part 1
The Space Mission Adventure, Part 1

Compare and contrast the books you have read. Discuss these questions with your group.

1. How do characters in these books use their imaginations when they explore space?
2. How can fiction help you understand what is and isn't possible when real people explore space?
3. **Write Question** What does it take to be a good astronaut? Which character do you think would be the best space explorer? Why?

For use with TE pp. 5218–5221 **SG7.21** Unit 7 | Exploring Space

### OBJECTIVES

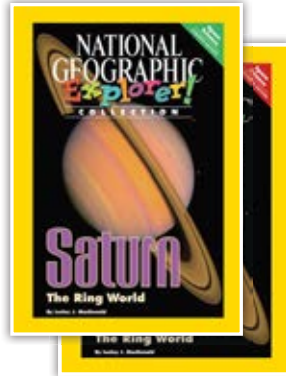
#### Thematic Connection: Exploring Space

Read and Comprehend Informational Text

Explain Ideas in Text

## Saturn: The Ring World by Lesley J. MacDonald

**Summary** *Saturn: The Ring World* explores the mysteries of Saturn, our solar system's second largest planet. It also looks at how scientific study of Saturn has changed over time. "Ring World" describes the spacecraft *Cassini's* trip to Saturn. It has helped scientists study Saturn, and they now believe that Saturn has more than 1000 rings and 33 moons. They also think life may exist on the moon Titan. A small spacecraft found what may be lakes there. "What's in a Name?" introduces two scientists who studied Saturn in the 1600s.



Christiaan Huygens was the first to discover Saturn's rings. Gian Domenico Cassini was the first to observe four of Saturn's moons. Both men used simple telescopes. "Changing How We See Space" describes the powerful telescopes used today to explore deep space. They reveal new facts that add to our knowledge of space.

**Activate Prior Knowledge** Display the front cover and ask: *What is Saturn?* (a planet) *Why might people study it?* (Possible responses: to find out if life exists there; to learn more about it; to learn about space)

**Build Background** Explain that for hundreds of years, people have been trying to unlock the secrets of Saturn, the second largest planet in our solar system. Use page 6 to explain that Saturn is surrounded by thousands of rings and has more than 30 moons. Have students identify the moons.

### PROGRAM RESOURCES

#### PRINT ONLY

*Saturn: The Ring World*, Pioneer Edition

*Saturn: The Ring World*, Pathfinder Edition

#### TECHNOLOGY ONLY

My Vocabulary Notebook

Interactive Whiteboard Lesson—Saturn's Wildest Weather

### COMMON CORE STANDARDS

#### Reading

Explain Ideas CC.4.Rinf.3

Read and Comprehend Informational Text CC.4.Rinf.10

#### Language

Acquire and Use Domain-Specific Words CC.4.L.6

### Mini Lesson

#### Explain Ideas in Text

Explain: *Scientific texts often contain difficult ideas and concepts.*

*An author usually includes specific information to explain them.*

Point out that good readers know how to explain ideas using specific information in a text.

Read aloud the following text from page 4 of the Pioneer Edition of *Saturn: The Ring World* as students listen.

#### Gas Giant

Saturn is made of gases. The gases may look calm. But they are not.

Tornadoes and other storms whip around Saturn. Some winds blow a thousand miles an hour!

#### Text from Pioneer Edition

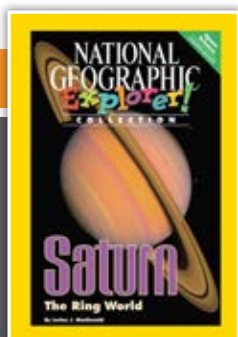
Then, think aloud to model how to explain ideas in text. *In this text, the author says the gases that make up Saturn look calm but are not. The author then gives specific information to explain this idea:*

- *Tornadoes and other storms whip around Saturn.*
- *Some winds blow a thousand miles an hour.*

*So, I can use this specific information to explain the idea that the gases on Saturn only look calm. In reality, they are wild.*

Have students use the specific information above to explain the idea that the gases that make up Saturn look calm but are not. (Possible response: The gases that make up Saturn might look calm, but they really are not. There are big storms like tornadoes on Saturn. Also, winds can reach a thousand miles per hour. So, with big storms and winds, Saturn is anything but calm.)

**BL** BELOW LEVEL 480L



**PIONEER EDITION**

Lexile: 480L | GR: P

**Content Connection:** Planets

**Science Vocabulary**

Use Wordwise on page 7 to introduce new words:

*atmosphere moon orbit planet spacecraft*

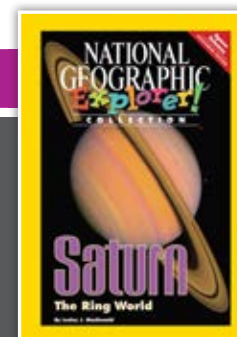
Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- Describe** How would you describe the planet Saturn?  
(Possible response: Saturn is the second largest planet in our solar system. It is made of stormy gases and has winds that can blow a thousand miles an hour. Thousands of rings and more than 30 moons surround Saturn.)
- Details** What are Saturn's rings made of? (They are made of bits of ice and rock that is covered with ice.)
- Main Idea** Why was the *Huygens* spacecraft sent to Titan?  
(It was sent to study Titan's surface and atmosphere so that people would know whether there is life on Titan.)
- Explain** Who were Cassini and Huygens? (They were scientists living in the 1600s who studied Saturn with simple telescopes. Huygens was the first to see Saturn's rings. Cassini discovered that Saturn has moons and that its rings are made of rock.)
- Explain Ideas in Text** How do scientists study Saturn?  
(Scientists use powerful telescopes. Some are placed on tops of mountains where the sky is clear. Some are sent into space or orbit Earth where the view of the planets is clear. These telescopes show many details that cannot be seen from Earth.)

**OL** ON LEVEL 630L



**PATHFINDER EDITION**

Lexile: 630L | GR: Q

**Content Connection:** Planets

**Science Vocabulary**

Use Wordwise on page 7 to introduce new words:

*atmosphere moon moonlet orbit planet spacecraft*

Have students add new words to **My Vocabulary Notebook**.

**Build Comprehension**

After reading, use the Concept Check on page 12. Remind students to use details and examples to support each answer.

- Details** How many moons do people now think Saturn has?  
(People think that Saturn has more than 30 moons.)
- Compare/Contrast** How does Titan compare to Saturn's other moons? (Titan is the second largest moon. It might have lakes filled with what could be liquid methane. The air is mostly nitrogen gas. Like all the moons, it orbits Saturn.)
- Describe** What is the surface of Saturn like? (Saturn's surface is made of gases. A small solid core may be buried below the clouds of gas.) How do we know? (The robot spacecraft *Cassini* has taken hundreds of pictures. Scientists study the pictures to learn more about Saturn.)
- Details** What are Saturn's rings made of? (They are made of chunks of ice and rock that is covered with ice.)
- Explain Ideas in Text** How do scientists study Saturn and other objects in space? (Scientists use powerful telescopes. Some sit on tops of mountains where the sky is clear. Some are loaded onto spacecraft with cameras and sent into space or to orbit Earth. These telescopes show scientists many details that they cannot see from Earth.)

**Check & Reteach**

**OBJECTIVE:** Explain Ideas in Text

Have partners take turns explaining the idea on page 6 (Pathfinder)/page 7 (Pioneer) that Titan is Saturn's most amazing moon. (Possible response: Scientists think life may exist on Titan. A spacecraft discovered rivers there. These things make Titan amazing.)  
For students who cannot explain events in text, reteach with "Filling the Gap" on page 9. Have students scan the text. Say: *The text says that Cassini is best known for his studies of Saturn. The author gives specific information that explains this idea.* Make a class list of the specific information. Have students use it to explain the idea that the scientist is best known for studying Saturn. (Possible response: Cassini was the first person to discover that Saturn has moons. He also learned that Saturn's rings are made of rock and that there is a gap in the rings. Because of these amazing discoveries, Cassini is best remembered for his studies of Saturn.)

**BL** BELOW LEVEL



**Moonshot**  
by Brian Floca

Content Connection:  
**Lunar Exploration**

Narrative Nonfiction | Pages: 48

**BL** BELOW LEVEL 580L



**Stanley in Space PART 2**  
by Jeff Brown

Content Connection:  
**Space Exploration**

Fantasy | Pages: 76 | Lexile: 580L | GR: N

**OBJECTIVES**

**Thematic Connection: Exploring Space**

Read and Comprehend Literature

Form Generalizations to Comprehend Literature

Describe Characters and Events

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

- Practice Master SG7.22, page SG49
- Practice Master SG7.23, page SG50
- Practice Master SG7.24, page SG51
- Practice Master SG7.28, page SG55

**TECHNOLOGY ONLY**

Digital Library: Eagle Lunar Module

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 1–21
- DAY 3 Read pages 22–48 and discuss
- DAY 4 Reteach or conduct intervention
- DAY 5 Connect across texts

**Summary** Free verse tells the story of the Apollo 11 moon landing. In 1969, Neil Armstrong, Michael Collins, and Buzz Aldrin wear heavy spacesuits and get into the *Columbia*, a small spaceship atop the *Saturn*. The rocket launches and roars into space. As it flies, it drops stages in order to lighten the load. Weightless in the *Columbia*, the astronauts eat, sleep, and steer the ship. Aldrin and Armstrong ride in *Eagle* to the moon. It lands and the two men walk where no person has walked before. They send radio signals to Collins and to people listening on Earth. After exploring the moon, they return to the *Columbia* and all three men return safely home.

**Activate Prior Knowledge** Ask: *What does the moon look like when it is full?*

**Build Background** Display Digital Library photo of the Eagle Lunar Module. Say: *Scientists designed special spaceships to reach the moon. A larger rocket called the Saturn pushed two smaller rockets, the Columbia and the Eagle, into space.*

**Story Words** Use Practice Master SG7.22 to extend vocabulary.

- awkward*, page 7
- beneath*, page 34
- magnificent*, page 7
- massive*, page 9
- release*, page 14

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

- Practice Master SG7.22, page SG49
- Practice Master SG7.23, page SG50
- Practice Master SG7.25, page SG52
- Practice Master SG7.28, page SG55

**TECHNOLOGY ONLY**

Digital Library: Magnifying Lens; Scale

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 53–72
- DAY 3 Read pages 73–89
- DAY 4 Read pages 90–128 and discuss
- DAY 5 Connect across texts

**PART 1:**  
See pages SG18–SG21.

**Review Part 1** For a complete summary of *Stanley in Space*, see page SG18. Remind students to complete the plot diagram by noting important events, the turning point, and the solution to the problem. To review plot events, ask: *Why did Stanley Lambchop and his family go into space?* (The President asked them to go to Tyrra because they were experienced with strange adventures.) *What do the Lambchops find out about the people of Tyrra when they get there?* (Tyrrans are just like humans, but much smaller—about three inches tall.)

**Activate Prior Knowledge** Ask: *What tools have you used when working on science projects?* (Possible responses: thermometers, telescopes, microscopes, rulers, scales, test tubes)

**Build Background** Use the photos of a magnifying lens and a scale from the Digital Library to point out some tools used by scientists. Say: *Scientists use a variety of tools to measure and view. A magnifying lens can help you get a closer look at a small object. A scale can help you measure weight or mass accurately.*

**Story Words** Use Practice Master SG7.22 to extend vocabulary.

- crisis*, page 62
- deceive*, page 82
- discard*, page 86
- indicate*, page 54
- occupy*, page 63



**OL** ON LEVEL 640L

**Star Jumper PART 2**  
by Frank Asch

Content Connection:  
**Spaceships**

Science Fiction | Pages: 59 | Lexile: 640L | GR: P



**AL** ABOVE LEVEL 900L

**The Space Mission Adventure PART 2**  
by Sharon M. Draper

Content Connection:  
**Space Camp**

Realistic Fiction | Pages: 53 | Lexile: 900L | GR: U



**COMMON CORE STANDARDS**

**Reading**

Summarize	CC.4.Rlit.2
Describe a Character	CC.4.Rlit.3
Read and Comprehend Literature	CC.4.Rlit.10
Use Knowledge of Conventions	CC.4.L.3

**Writing**

Write Over Shorter Time for Specific Tasks CC.4.W.10

**Speaking and Listening**

Draw on Preparation to Explore Ideas CC.4.SL.1.a

**Language and Vocabulary**

Acquire and Use Academic Words CC.4.L.6

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

Practice Master SG7.22, page SG49

Practice Master SG7.23, page SG50

Practice Master SG7.26, page SG53

Practice Master SG7.28, page SG55

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 70–89
- DAY 3 Read pages 90–106
- DAY 4 Read pages 107–128 and discuss
- DAY 5 Connect across texts

**PART 1:**  
See pages SG18–SG21.

**Review Part 1** For a complete summary of *Star Jumper*, see page SG19. Remind students to complete the plot diagram by noting important events, the turning point, and the solution to the problem. To review plot events, ask: *Why does Alex build Star Jumper?* (He builds the ship to get away from his pesky younger brother.) *What problem does the Atom Slider solve?* (It allows *Star Jumper* to move through the atoms of the ceiling.)

**Activate Prior Knowledge** Ask: *How would you feel if you saw a tiger running toward you? Why? How would you feel if it were no bigger than a tiny kitten? Why?*

**Build Background** Have students recall how Alex uses his inventions. Mention that Alex may use one of his inventions to protect himself and invite students to make a prediction about this.

**Story Words** Use Practice Master SG7.22 to extend vocabulary.

<i>advanced</i> , page 69	<i>cancel</i> , page 127	<i>duplicate</i> , page 91
<i>impress</i> , page 7	<i>reverse</i> , page 80	

**PROGRAM RESOURCES**

**PRINT & TECHNOLOGY**

Practice Master SG7.22, page SG49

Practice Master SG7.23, page SG50

Practice Master SG7.27, page SG54

Practice Master SG7.28, page SG55

**TECHNOLOGY ONLY**

Digital Library: Model Rocket

**SUGGESTED PACING**

- DAY 2 Introduce and read pages 50–69
- DAY 3 Read pages 70–89
- DAY 4 Read pages 90–102 and discuss
- DAY 5 Connect across texts

**PART 1:**  
See pages SG18–SG21.

**Review Part 1** For a complete summary of *The Space Mission Adventure*, see page SG19. Remind students to complete the plot diagram by noting important events, the turning point, and the solution to the problem. Ask: *What have Ziggy and the Black Dinosaurs done at Space Camp so far?* (They have met other campers, used the multi-axis trainer, seen a movie, and gone to lectures about space.) *What mystery do they want to solve?* (They want to find out if a mysterious green object came from space.)

**Activate Prior Knowledge** Ask: *When have you solved a mystery? What clues helped you find the solution?*

**Build Background** Display the photo of a model rocket from the **Digital Library**. Explain that a model is a smaller, simpler copy of an object. Say: *You can learn about complicated machines by building a simple model. For example, a model rocket is based on some of the same scientific ideas as an actual rocket.*

**Story Words** Use Practice Master SG7.22 to extend vocabulary.

<i>accomplishment</i> , page 96	<i>communicate</i> , page 61	<i>potential</i> , page 97
<i>simulate</i> , page 74	<i>successful</i> , page 59	

## BL BELOW LEVEL

### Moonshot

by Brian Floca

#### Build Comprehension

- **Compare and Contrast** *How do things change for the astronauts when they go from Earth to space?* (Possible responses: They are weightless in space. They have to eat special food and sleep without beds or pillows.)
- **Form Opinions** *Why was reaching the moon an important goal?* (Possible responses: We learned about the moon, which has always interested people. Scientists also created new tools that can be used on Earth and in other space exploration.)

#### Writing Options

- **Interview Questions** Have students write four questions they would like to ask the Apollo 11 astronauts. Remind students to vary the question words: *who, what, where, when, why, how.*
- **Dialogue** Suggest that students write a dialogue between Armstrong, Aldrin, and Collins as they are traveling to or from the moon. Remind students to make the dialogue realistic by using information from the book.
- **Journal Entry** Invite students to tell what they think about when they see the moon. How did reading *Moonshot* change their ideas?

## BL BELOW LEVEL 580L

### Stanley in Space PART 2

by Jeff Brown

#### Build Comprehension

- **Problem and Solution** *What problem almost prevented Stanley from bringing the Tyrrans to Earth? How was it solved?* (The Tyrran population added 379 pounds to the ship, which made it unsafe; the Lambchops removed every unnecessary item.)
- **Identify Theme** *What message does the story reflect about ending a crisis?* (Possible response: Teamwork can solve a crisis. For example, the Lambchops are able to help the Tyrrans end a crisis by working together to find a helpful solution.)

#### Writing Options

- **News Brief** Have students write a news article about the day the Tyrrans arrive on Earth. Articles should explain who the Tyrrans are and why they have come to Earth.
- **Travel Brochure** Have students write a travel brochure for astronauts who might visit the planet Tyrra. Remind students to include details from the book that describe the setting.
- **Journal Entry** Invite students to compare their predictions about the Lambchops with the actual resolution of the book.

### Check & Reteach

Ask students to describe the main characters in the books they read. If students have difficulty describing characters, refer them to their character chart. Ask: *What does the character do in this book? What are some of the things the character says? What do these actions and words tell you about this character?*

#### DURING READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Character Chart**  
**Story Characters**  
Use the character chart to take notes about your book as you read.

Character	What the Character Does	What the Character Says	What It Shows

Use your character chart to tell a partner about the book.

For use with TE pp. 5624-5627 **SG7.23** Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**  
**Moonshot**  
Review the story words with your group. Then discuss these questions together.

**Story Words**  
awkward  
beneath  
magnificent  
massive  
release

1. **Analyze Dialogue** Review the dialogue on page 33 when Neil Armstrong lands the *Eagle* on the moon. What do you learn about Armstrong from what he says and how he says it?
2. **Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** Who are the three astronauts? Who else is featured in the book?
  - **What Characters Do** What steps do characters follow before the rocket launch? What do they do next?
  - **What Characters Say** Review what characters say when the Saturn leaves Earth.
  - **What It Shows** What do the characters' actions and words show about them?
3. **Synthesize** How is traveling in space both awkward and exciting?
4. **Question Generalize** Why is teamwork important for exploring space?

For use with TE pp. 5624-5627 **SG7.24** Unit 7 | Exploring Space

#### AFTER READING

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**  
**Stanley in Space, Part 2**  
Review the story words with your group. Then discuss these questions together.

**Story Words**  
crisis  
deceive  
discard  
indicate  
occupy

1. **Analyze Dialogue** Review the dialogue in Chapter 7. How does dialogue explain the crisis that the Tyrrans are facing?
2. **Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** Discuss two Tyrrans who have different personalities.
  - **What Characters Do** What do these characters do?
  - **What Characters Say** Find examples of their dialogue that show what they are like.
  - **What It Shows** What do you learn about these two characters from the things they say and do?
3. **Synthesize** How does the Lambchop family help to solve the crisis on Tyrra?
4. **Question Generalize** Why is it important to know the weight of objects and people when exploring space?

For use with TE pp. 5624-5627 **SG7.25** Unit 7 | Exploring Space

**OL** ON LEVEL 640L

**Star Jumper PART 2**  
by Frank Asch

**Build Comprehension**

- **Make Judgments** *Does Alex treat his brother Jonathan fairly? Why or why not?* (Possible response: Yes, Alex treats his brother fairly because even though he complains about his brother, he does his best to keep him safe when things go wrong.)
- **Form Opinions** *Which of Alex's inventions impressed you the most? Why?* (Encourage students to name one of Alex's inventions, such as the Micro-Blaster or the Duplicator, and explain why it is impressive.)

**Writing Options**

- **Book Review** Have students write a review of *Star Jumper*. Explain that a review should include a short summary of the plot, but not give away any big surprises. It should also identify the strongest parts of the book and tell what kind of readers are most likely to enjoy reading the book.
- **Sequel** Point out that at the end of the book, Alex says he will begin building *Star Jumper 2*. Have students write about one adventure Alex has while building his new spaceship. Suggest that they include Jonathan and Zoe in their sequels.
- **Journal Entry** Invite students to compare their predictions about the *Star Jumper* with what actually happened.

**AL** ABOVE LEVEL 900L

**The Space Mission Adventure PART 2**  
by Sharon M. Draper

**Build Comprehension**

- **Analyze Character** *How does Ziggy's personality help him solve a mystery?* (Possible response: Ziggy is curious and not afraid to look silly. He asks Ms. Washington about the object, and it turns out to be a stone she lost. If he had not been brave enough to ask, the mystery might not have been solved.)
- **Draw Conclusions** *What are some of the most important things campers learn at Space Camp?* (Possible responses: They learn facts about space travel, and they learn how to simulate a space mission.)

**Writing Options**

- **Interview Questions and Answers** Have students write an interview with one of the characters from the book. Encourage them to write at least five questions and then provide answers that the character might give.
- **Persuasive Letter** Suggest that students write a letter to persuade their school to sponsor a trip to Space Camp. Letters should emphasize how the trip could be a valuable experience for students.
- **Journal Entry** Invite students to compare their predictions about the mysterious object with the solution in the book.



**Connect Across Texts**

**AFTER READING** Form heterogeneous groups, and have each member of the group summarize his or her book. Then have groups use **Practice Master SG7.28** to guide discussion.

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Star Jumper, Part 2**

Review the story words with your group. Then discuss these questions together.

Story Words
advanced
cancel
duplicate
impress
reverse

1. **Analyze** Review the dialogue between Zoe and Alex in Chapter 7. Alex thinks Zoe is impressed with his intelligence. Do you agree?
2. **Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** How are Alex and Jonathan related?
  - **What Characters Do** Describe three things that Alex and Jonathan do that show what each character is like.
  - **What Characters Say** Find examples of things that Alex and Jonathan say that reflect the way they talk.
  - **What It Shows** What do you learn about these two characters from the things they say and do?
3. **Synthesize** How is Alex's view of his adventures different from his mother's view of what happens?
4. **Click Question** **Generalize** What kinds of advanced tools are required to explore space?

For use with TE pp. 5624-5627 **SG7.26** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**The Space Mission Adventure, Part 2**

Review the story words with your group. Then discuss these questions together.

Story Words
accomplishment
communicate
potential
simulate
successful

1. **Analyze Dialogue** Review the dialogue between Ziggy and Ms. Washington in Chapter 8. Why does she say that Ziggy has "the mind of an astronaut"?
2. **Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** How are Ziggy and Ms. Washington similar?
  - **What Characters Do** Describe three things that Ziggy and Ms. Washington do that show what each character is like.
  - **What Characters Say** Find examples of things that Ziggy and Ms. Washington say that reflect the way they talk.
  - **What It Shows** What do you learn about these two characters from the things they say and do?
3. **Synthesize** Why is the Black Dinosaur's team successful on their mission?
4. **Click Question** **Generalize** How could going to Space Camp help prepare students to become astronauts?

For use with TE pp. 5624-5627 **SG7.27** Unit 7 | Exploring Space

**AFTER READING**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Discussion Guide**

**Connect Across Texts**

Share the story words with your group. Then take notes as you listen to each summary.

Moonshot
Stanley in Space, Part 2
Star Jumper, Part 2
The Space Mission Adventure, Part 2

Compare and contrast the books you have read. Discuss these questions with your group.

1. Which events in these books could really happen? Which events are impossible—or at least very, very unlikely?
2. How can reading stories about space exploration help you solve problems on Earth?
3. **Click Question** How do tools help astronauts explore space?

For use with TE pp. 5624-5627 **SG7.28** Unit 7 | Exploring Space

Academic Vocabulary

# Story Words

## Forces That Move

**cause** (kawz) *verb*

To **cause** means to make something happen. *In the winter, ice may cause you to fall down.*

**direction** (du-rek-shun) *noun*

**Direction** is the line or path along which something moves. *I kick the ball in the direction of the gate.*

**lessen** (less-un) *verb*

To **lessen** means to get smaller in some way. *We close our classroom windows to lessen the noise from the playground.*

**smooth** (smüth) *adjective*

Something **smooth** is very even and flat, not rough and bumpy. *The new road is smooth.*

**strength** (strengkth) *noun*

**Strength** is a lot of power. *You need a lot of strength to carry a heavy box of books.*

## Defining the Laws of Motion

**curious** (kyur-ê-us) *adjective*

Someone **curious** wants to learn or find out. *My younger sister is so curious, she asks hundreds of questions every day.*

**model** (mod-ul) *noun*

A **model** is a description used to get a sense of something that cannot be seen. *The scientist explained the model of how Earth moves.*

**prove** (prüv) *verb*

To **prove** means to show that something is true. *I used a scale to prove that I weigh more than my brother.*

**reaction** (rê-ak-shun) *noun*

A **reaction** is a response to something else. *Ripples are a reaction to throwing a rock in a lake.*

**rotate** (rô-tät) *verb*

To **rotate** means to turn. *At the top of the hill, I rotate all the way around to enjoy the view on all sides.*

## Using Force and Motion

**apply** (u-plī) *verb*

To **apply** means to have a connection to someone or something. *The swimming pool rules apply to all swimmers.*

**conclude** (con-clüd) *verb*

To **conclude** is to decide something based on facts. *Because your shoes are wet and muddy, we conclude that you have been outside.*

**reaction** (rê-ak-shun) *noun*

A **reaction** is a response to something or someone. *What reaction do you expect if you push a pin into a balloon?*

**reduce** (ri-düs) *verb*

To **reduce** means to make smaller in size, amount, or number. *Rain will reduce the number of people at the picnic.*

**resist** (ri-zist) *verb*

When you **resist** something, you are not changed or harmed by it. *A big hat helps me resist the heat of the sun.*

## The Science of Hitting a Home Run

**determine** (di-tur-mun) *verb*

To **determine** means to be the reason for something. *Speed will determine the winner of the race.*

**direction** (du-rek-shun) *noun*

**Direction** is the line or path along which something moves. *I change the direction of my bicycle by turning the front wheel.*

**impact** (im-pakt) *noun*

An **impact** is the striking together of two things. *The impact of my finger on the wet clay leaves a fingerprint.*

**transfer** (trans-fur) *verb*

To **transfer** means to pass from one place to another. *The energy from the sun transfers to our sidewalk, and it heats up.*

**vary** (vair-ê) *verb*

To **vary** means to change. *I vary my breakfasts because I don't like to eat the same thing every day.*

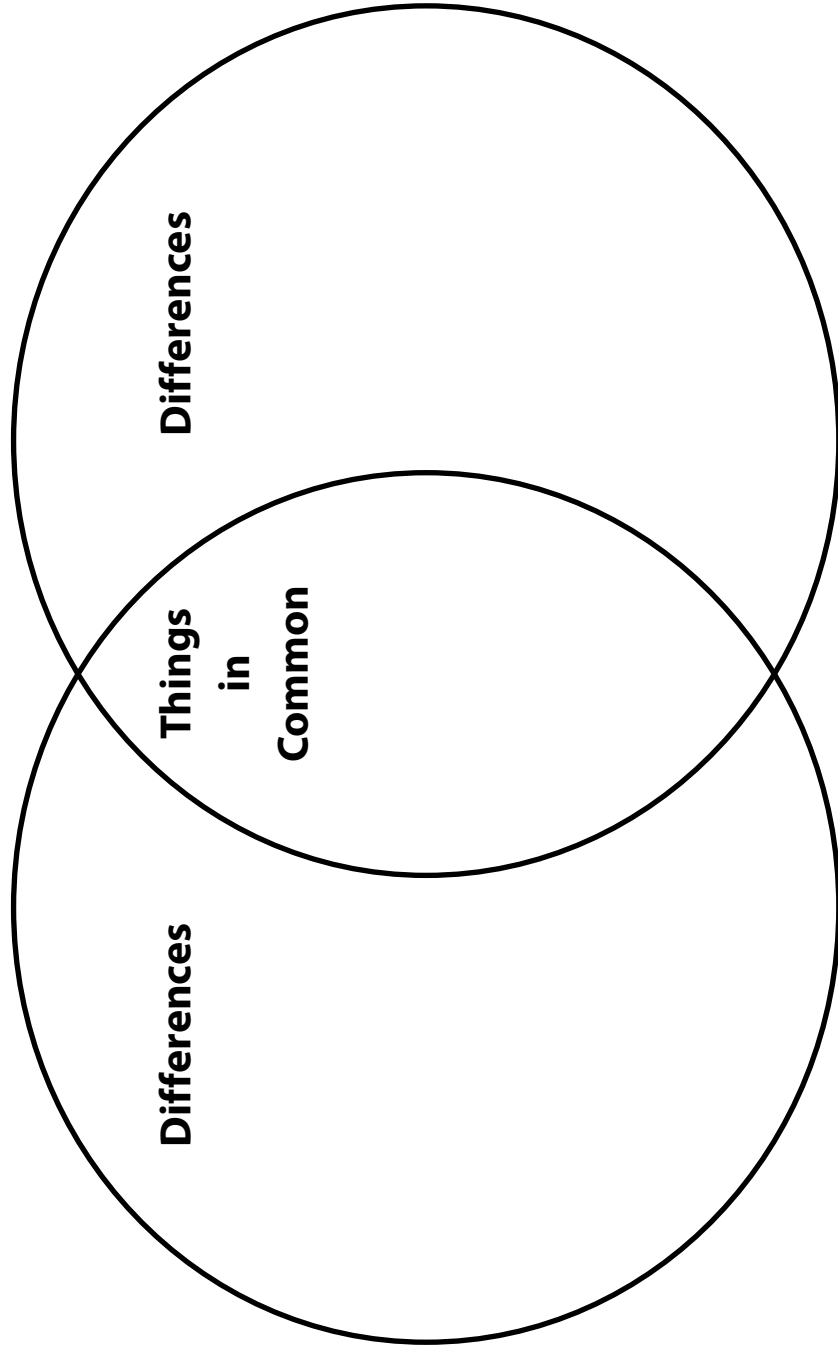
COPY READY

Venn Diagram

# Compare and Contrast

Use the Venn diagram to take notes about your book as you read.

Topic: \_\_\_\_\_ Topic: \_\_\_\_\_



Use your Venn diagram to tell a partner about the book.

## Discussion Guide

# Forces That Move

Review the story words with your group. Then discuss these questions together.

## Story Words

cause

direction

lessen

smooth

strength

- Analyze Text Features** Look at the photos on pages 10–13. How do the photos show forces in action? What information do you learn from the captions?
- Compare and Contrast** Use these questions and the notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** What are two different forces described in Chapter 1?
  - **Things in Common** How are these forces similar?
  - **Differences** What are the most important differences between them?
- Synthesize** Review Chapter 2. How does reading about snowboarding help you put together the information about forces in Chapter 1?
- BIG Question** **Generalize** Why do scientists need to understand forces that move in order to explore space?

## Discussion Guide

**Defining the Laws of Motion**

Review the story words with your group. Then discuss these questions together.

## Story Words

curious

model

prove

reaction

rotate

COPY READY

1. **Analyze Text Features** Review Chapter 2. How do the red subheads help you scan for information?
2. **Compare Text Features** Look at the time line and gallery on pages 38–39. How do these features summarize information from the book?
3. **Compare and Contrast** Use these questions and your notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** Which two scientists do you find most surprising?
  - **Things in Common** What do they have in common? Did they study similar topics? Did they experience similar problems?
  - **Differences** How was each scientist unique? What discoveries did each scientist make? What happened in his life?
4. **Synthesize** Based on your reading about each of the four scientists, what does it take to be a good scientist?
5. **Big Question** **Generalize** How did early scientists help make current space travel possible?

## Discussion Guide

# Using Force and Motion

Review the story words with your group. Then discuss these questions together.

## Story Words


apply

conclude

reaction

reduce

resist

- 1. Analyze Text Features** Review the diagram on pages 20–21. How does this information help you apply facts about force and motion?
- 2. Compare Text Features** Look at the Think Like a Scientist features on pages 17 and 26–27. What do these features have in common? How do they support ideas in the book?
- 3. Compare and Contrast** Use these questions and your notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** What do scientists mean by action and reaction?
  - **Things in Common** How are an action and reaction similar?
  - **Differences** How are an action and reaction different?
- 4. Synthesize** Describe some of the forces people use when they ride a bicycle.
- 5.  BIG Question Generalize** How do people use force and motion to explore space?



## Discussion Guide

# The Science of Hitting a Home Run

## Story Words

determine

direction

impact

transfer

vary

Review the story words with your group. Then discuss these questions together.

1. **Analyze Text Features** Review the Table of Contents on page 3. How can you use this information to help you summarize the book?
2. **Compare Text Features** Review the diagrams on pages 8, 13, and 23. How are these diagrams similar? How are they different?
3. **Compare and Contrast** Use these questions and your notes in the Venn diagram to compare and contrast two people, places, or things.
  - **Topics** What are two kinds of motion that you need to hit a home run?
  - **Things in Common** What do these two motions have in common?
  - **Differences** How are these two motions different?
4. **Synthesize** Compare scoring a basket in basketball with hitting a home run. What do these two motions have in common? How are they different?
5. **BIG Question** **Generalize** How is the science of hitting a home run related to the science of exploring space?

**Discussion Guide**

# Connect Across Texts

Share the story words with your group. Then take notes as you listen to each summary.

Forces That Move
Defining the Laws of Motion
Using Force and Motion
The Science of Hitting a Home Run

COPY READY

Compare and contrast the books you have read. Discuss these questions with your group.

1. What did you learn about how force and motion are related?
2. What do these books tell you about forces that you use every day?
3. **BIG Question** What ideas about force and motion do you think scientists use when they are exploring space?

## Academic Vocabulary

## Story Words

*Lighter on the Moon***amount** (u-mownt) *noun*

The **amount** of something is how much of it there is. *If you like sweet lemonade, make the **amount** of sugar greater.*

**compare** (cum-pair) *verb*

When you **compare** two things, you notice how they are alike and different. *We **compare** cats and dogs before we decide which one will be the best pet for our family.*

**determine** (di-tur-mun) *verb*

To **determine** means to be the reason for something. *How much you eat will **determine** how full you feel.*

**farther** (far-thur) *adjective*

**Farther** means at a greater distance. *I have been running every day, so now I can run **farther** than I could last year.*

**object** (ahb-jikt) *noun*

An **object** is something you can see and touch but is not alive. *The newest **object** in our classroom is a computer.*

*The International Space Station***intense** (in-tens) *adjective*

**Intense** means very strong. *The **intense** heat made us all want to go swimming.*

**international** (int-ur-nash-un-ul) *adjective*

**International** means involving different countries. *The **international** plan will affect the U.S., Mexico, and Canada.*

**program** (prō-gram) *noun*

A **program** is a plan for doing something. *Our town has a new **program** to teach people to use less water.*

**structure** (struk-chur) *noun*

A **structure** is something that has been built. *The long, gray **structure** you see in this photo is a bridge.*

**vehicle** (vē-ik-ul) *noun*

A **vehicle** carries people or goods from place to place. *Cars, planes, bicycles, and boats are **vehicles**.*

*Exploring Space***accomplish** (uh-kahm-plish) *verb*

When you **accomplish** something, you get it done. *Will my sister **accomplish** her goal of winning the race?*

**advance** (ud-vans) *verb*

To **advance** means to improve or make progress. *In the future, computers will **advance** so they are faster and smaller.*

**deliver** (di-liv-ur) *verb*

To **deliver** means to take something to someone. *The restaurant **delivers** a pizza to our house.*

**permanent** (purm-un-unt) *adjective*

Something **permanent** will last for a very long time. *My brother's baby tooth just fell out, so his **permanent** tooth has not come in yet.*

**revolve** (ri-vahlv) *verb*

To **revolve** means to turn in a circle or orbit around a point in the center. *The moon **revolves** around the Earth.*

*Stars and Galaxies***contract** (kun-trakt) *verb*

When things **contract**, they get smaller. *Some animals **contract** into a ball when they are frightened.*

**expand** (ik-spand) *verb*

When things **expand**, they get larger. *The balloon will **expand** when you blow in some air.*

**prove** (prüv) *verb*

To **prove** means to show that something is true. *Show your prize to **prove** that you won the contest.*

**theory** (thē-u-rē) *noun*

A **theory** is an idea that explains how or why something happens. *The scientist has an interesting new **theory** about why dinosaurs disappeared.*

**vast** (vast) *adjective*

Something **vast** is very great in size or amount. *It takes many weeks to cross the **vast** desert on foot.*

Information Chart

# Compare and Contrast

Use the information chart to take notes about your book as you read.

Page	What It Says	What It Means

COPY READY

 Use your information chart to tell a partner about the book.

## Discussion Guide

# Lighter on the Moon

Review the story words with your group. Then discuss these questions together.

## Story Words

amount


compare

determine

farther

object

COPY READY

- 1. Analyze a Science Report** Review the heads on pages 3, 6, 10, 12, and 16. How do these heads help you understand the information in this science report?
- 2. Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 7–9. What does the text say about the connection between gravity and weight?
  - **What It Means** Use your own words to explain how gravity determines weight.
  - **What It Says and What It Means** Review page 10. What did astronauts say it felt like to walk on the moon? Explain their statement in your own words.
- 3. Synthesize** Gravity on Jupiter is more than two times greater than gravity on Earth. How would your weight change if you were on Jupiter? Why?
- 4.  BIG Question Generalize** Why do astronauts need to know how much they will weigh in space?

## Discussion Guide

# Exploring Space

Review the story words with your group. Then discuss these questions together.

## Story Words


accomplish

advance

deliver

permanent

revolve

- 1. Analyze a Science Report** Review the Introduction on pages 4–5. How do these pages prepare readers for the information in this science report?
- 2. Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 8–9. How are the planets in our solar system divided into two groups?
  - **What It Means** Use your own words to explain why these categories make sense.
  - **What It Says and What It Means** Review pages 16–17. What goal did scientists accomplish by creating multistage rockets? Explain how this invention helped advance space exploration.
- 3. Synthesize** Review Chapter 3. How do astronauts and robots work together to explore space?
- 4.  BIG Question Generalize** What tools do scientists use to explore space?


## Discussion Guide

# The International Space Station

## Story Words

intense
international
program
structure
vehicle

Review the story words with your group. Then discuss these questions together.

- 1. Analyze a Science Report** Review the diagrams on pages 6, 9, 12–13, and 16. How do these diagrams help you understand the International Space Station?
- 2. Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 16–17. What does the text say about energy on the Station?
  - **What It Means** Use your own words to explain how the Station gets the energy it needs.
  - **What It Says and What It Means** Review pages 14–15. How does the Station keep from crashing to Earth? What does this tell you about the effect of Earth’s gravity on the Station?
- 3. Synthesize** How is living on the Space Station a kind of research? What do astronauts learn when by staying on the Station for 3 to 6 months?
- 4.  BIG Question Generalize** Why is it important that many countries work together to create the International Space Station?

## Discussion Guide

# Stars and Galaxies

Review the story words with your group. Then discuss these questions together.

## Story Words


contract

expand

prove

theory

vast

- 1. Analyze a Science Report** Review page 8. What kinds of information does this science report include to help you understand distances in space?
- 2. Explain Scientific Text** Use these questions and the notes in the information chart to explain ideas in the book.
  - **What It Says** Review pages 12–13. What does the text say about how stars contract and expand during their life?
  - **What It Means** Use your own words to explain the life stages of a star.
  - **What It Says and What It Means** Review page 19. How does the text describe the big bang theory? Explain this theory in your own words.
- 3. Synthesize** How would you describe Earth's position in the universe?
- 4.  BIG Question Generalize** How do scientists use tools to explore the vast universe?



**Discussion Guide****Connect Across Texts**

Share the story words with your group. Then take notes as you listen to each summary.

Lighter on the Moon

Exploring Space

The International Space Station

Stars and Galaxies

Compare and contrast the books you have read. Discuss these questions with your group.

1. How does each book add to your understanding of outer space?
2. How might you apply the information in these books to your everyday life?
3. **Big Question** What are some of the most important topics that scientists need to understand before they explore space?

**Academic Vocabulary**

# Story Words

## Richie's Rocket

**accomplish** (uh-kahm-plish) *verb*  
 When you **accomplish** something you get it done. *My grandmother says I can **accomplish** anything I really try to do.*

**complicated** (kahm-plu-ká-tud) *adjective*  
 Something **complicated** has many parts that make it difficult to use or understand. *It took me three days to follow the **complicated** steps for building a model rocket.*

**curious** (kyur-ē-us) *adjective*  
 Someone **curious** wants to learn or find out. *I am reading a book about stars because I am very **curious** about space.*

**gradually** (graj-u-wul-ē) *adverb*  
**Gradually** means slowly and steadily. *I am **gradually** learning how to play the trumpet.*

**pretend** (pri-tend) *verb*  
 To **pretend** means to make believe. *I like to **pretend** that I can fly to other planets.*

## Star Jumper PART 1

**accomplishment** (u-kahm-plish-munt) *noun*  
 An **accomplishment** is something finished well. *Climbing to the top of the mountain was a true **accomplishment**.*

**delay** (di-lā) *noun*  
 When there is a **delay**, something does not happen when it is supposed to happen. *We planned to travel by train, but the snowstorm caused a long **delay**.*

**effective** (i-fek-tiv) *adjective*  
 Something **effective** gets the job done well. *Barking is an **effective** way for a dog to get your attention.*

**install** (in-stahl) *verb*  
 To **install** means to set up for use. *Our school will **install** a new science lab next year.*

**solution** (su-lū-shun) *noun*  
 A **solution** is the answer to a problem. *Is there more than one correct **solution** to the puzzle?*

## Stanley in Space PART 1

**appear** (u-pear) *verb*  
 To **appear** means to come into sight. *After the sun sets, the stars **appear** in the night sky.*

**extraordinary** (ik-strord-un-er-ē) *adjective*  
 Something **extraordinary** is unusual or amazing. *The sky was so clear we saw an **extraordinary** number of stars.*

**proceed** (prō-sēd) *verb*  
 To **proceed** means to carry on an action. *In the parade, the musicians **proceed** to march down main street.*

**reassure** (rē-u-shur) *verb*  
 When you **reassure** someone, you calm them and give them courage. *Before I dive into the water, my parents **reassure** me that it is not too cold.*

**serious** (sihr-ē-us) *adjective*  
 When you are **serious**, you are thoughtful and not joking. *I could tell my teacher was **serious** because she was not smiling.*

## The Space Mission

### Adventure PART 1

**focus** (fō-kus) *verb*  
 To **focus** means to pay attention to. *It is easy to **focus** on my grandmother because her stories are so interesting.*

**member** (mem-bur) *noun*  
 A **member** is a person who belongs to a group. *I am the youngest **member** of the basketball team.*

**possibility** (pahs-u-bil-uh-tē) *noun*  
 A **possibility** is something that could happen. *When I run a race, I try to think about the **possibility** of winning.*

**realistic** (rē-u-lis-tik) *adjective*  
 Something **realistic** is very much like the real thing. *The toy frog is so **realistic** I keep thinking it is going to jump away.*

**suspend** (su-spend) *verb*  
 To **suspend** means to hang something from above. *We **suspend** dozens of party balloons from the ceiling.*

COPY READY

**Plot Diagram**

# Story Plot

Use the plot diagram to take notes about your book as you read.

**Problem:**



**Events:**



**Turning Point:**



**Solution:**

**COPY READY**

 Use your plot diagram to tell a partner about the book.

## Discussion Guide

# Richie's Rocket

Review the story words with your group. Then discuss these questions together.

## Story Words

accomplish

complicated

curious

gradually

pretend

- Analyze Dialogue** Review Richie's dialogue on pages 10–14. What do you learn about Richie from the things he says and the way he says them?
- Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** What happens to Richie after he goes to the planetarium?
  - **Events** What happens right before Richie's rocket blasts off? Describe three things that happen next.
  - **Turning Point** How does Richie feel on the moon?
  - **Solution** How has Richie changed at the end of the story?
- Synthesize** Does Richie pretend to visit the moon or does he really go there? How do you know?
- BIG Question** **Generalize** What does Richie have in common with a trained astronaut?

## Discussion Guide

**Stanley in Space, Part 1**

Review the story words with your group. Then discuss these questions together.

## Story Words

appear

extraordinary

proceed

reassure

serious

COPY READY

1. **Analyze Dialogue** Review Chapter 1. What do you learn about each member of the Lambchop family from the dialogue?
2. **Compare Dialogue** Review the dialogue in Chapter 5. How do the Tyrrans talk like people from Earth?
3. **Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** Why does the President of the United States contact Stanley and his family?
  - **Events** How do the Lambchops respond to the President's plan? What happens next?
4. **Synthesize** Which adventures in this book are believable and which are not? Why?
5. **BIG Question** **Generalize** Are the Lambchops good astronauts? Why or why not?

## Discussion Guide

# Star Jumper, Part 1

Review the story words with your group. Then discuss these questions together.

## Story Words

accomplishment

delay

effective

install

solution

- Analyze Dialogue** Review Chapter 2. What do you learn about Alex and his brother Jonathan from their dialogue?
- Analyze Dialogue** Review pages 45–46. How can dialogue move a story forward?
- Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** Alex tells the story in *Star Jumper*. According to Alex, what is his biggest problem?
  - **Events** What inventions does Alex make to find a solution?
- Synthesize** Are Alex's inventions effective? Why or why not?
- BIG Question** **Generalize** How does Alex apply his knowledge of science when he makes his inventions?

## Discussion Guide

# The Space Mission Adventure, Part 1

Review the story words with your group. Then discuss these questions together.

## Story Words

focus

member

possibility

realistic

suspend

COPY READY

1. **Analyze Dialogue** Review Chapter 1. What do you learn about each member of the Black Dinosaurs from their dialogue?
2. **Compare Dialogue** Review the dialogue in Chapter 3. Do the other students at Space Camp speak like the members of the Black Dinosaurs? Find examples to support your answer.
3. **Comprehend Plot** Use these questions and the notes in the plot diagram to tell what happens in the book.
  - **Problem** What mystery does Ziggy uncover at Space Camp?
  - **Events** What events lead up to the discovery of this mystery?
4. **Synthesize** How does Space Camp combine learning and fun?
5. **BIG Question** **Generalize** Why might astronauts want to take part in Space Camp with students?

**Discussion Guide**

# Connect Across Texts

Share the story words with your group. Then take notes as you listen to each summary.

Richie's Rocket
Stanley in Space, Part 1
Star Jumper, Part 1
The Space Mission Adventure, Part 1

COPY READY

Compare and contrast the books you have read. Discuss these questions with your group.

1. How do characters in these books use their imaginations when they explore space?
2. How can fiction help you understand what is and isn't possible when real people explore space?
3. **Big Question** What does it take to be a good astronaut? Which character do you think would be the best space explorer? Why?



## Academic Vocabulary

## Story Words

## Moonshot

**awkward** (awk-wurd) *adjective***Awkward** means clumsy, not graceful. *I felt very awkward trying to tie my shoes with my gloves on.***beneath** (bi-nēth) *preposition***Beneath** means under or below. *The tunnel goes beneath the river.***magnificent** (mag-nif-u-sunt) *adjective*Something **magnificent** is very beautiful. *Many people climb the mountain to see the magnificent view from the top.***massive** (mas-iv) *adjective*Something **massive** is very weighty or heavy. *A massive tree fell down and blocked the road.***release** (ri-lēs) *verb*To **release** means to let go or set free. *If you release the kite string, the kite will fly away.*

## Stanley in Space PART 2

**crisis** (krī-sus) *noun*A **crisis** is a time of danger and difficulty. *Our town faces a water crisis because it has not rained in two months.***deceive** (di-sēv) *verb*If someone **deceives** you, that person tricks you into believing something that is not true. *My uncles are so much alike that they can deceive people into thinking they are twins.***discard** (dis-card) *verb*To **discard** means to throw something away. *I open the present and discard the box it came in.***indicate** (in-du-kāt) *verb*To **indicate** means to point out. *Red stars on the map indicate places where there are schools.***occupy** (ahk-yu-pī) *verb*To **occupy** means to take up or fill. *On the way to the space show, we occupy every seat in the school bus.*

## Star Jumper PART 2

**advanced** (ud-vanst) *adjective*Something **advanced** is not easy. *The advanced skating class is for students who already know how to skate.***cancel** (kan-sul) *verb*When you **cancel** an event, you decide it will not happen. *We will cancel the hike if there is a big storm.***duplicate** (dü-pli-kāt) *verb*To **duplicate** means to copy. *Last night's pizza was so tasty, I plan to duplicate it again tonight.***impress** (im-pres) *verb*To **impress** means to make people think highly of you. *I know my father will impress you when he plays the drums.***reverse** (ri-vers) *adjective***Reverse** means opposite or backward. *Run around the track, then turn around and run in the reverse direction.*

## The Space Mission

## Adventure PART 2

**accomplishment**(u-kahm-plish-munt) *noun*An **accomplishment** is something finished well. *My biggest accomplishment last year was winning the spelling bee.***communicate** (ku-myü-nu-kāt) *verb*When you **communicate**, you share ideas or feelings with another person. *My aunt and I often communicate by e-mail.***potential** (pu-ten-shul) *noun***Potential** is something that can become real. *We all have the potential to become good leaders.***simulate** (sim-yu-lāt) *verb*To **simulate** means to pretend. *The roller coaster simulates flying, even though it does not leave the ground.***successful** (suk-ses-ful) *adjective*Something **successful** turns out well. *Our school play was very successful because we all worked well together.*

**Character Chart**

# Story Characters

Use the character chart to take notes about your book as you read.

Character	What the Character Does	What the Character Says	What It Shows

COPY READY

 Use your character chart to tell a partner about the book.

## Discussion Guide

# Moonshot

Review the story words with your group. Then discuss these questions together.

## Story Words

awkward


beneath

magnificent

massive

release

COPY READY

- 1. Analyze Dialogue** Review the dialogue on page 33 when Neil Armstrong lands the *Eagle* on the moon. What do you learn about Armstrong from what he says and how he says it?
- 2. Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** Who are the three astronauts? Who else is featured in the book?
  - **What Characters Do** What steps do characters follow before the rocket launch? What do they do next?
  - **What Characters Say** Review what characters say when the Saturn leaves Earth.
  - **What It Shows** What do the characters' actions and words show about them?
- 3. Synthesize** How is traveling in space both awkward and exciting?
- 4.  BIG Question Generalize** Why is teamwork important for exploring space?

## Discussion Guide

# Stanley in Space, Part 2

Review the story words with your group. Then discuss these questions together.

## Story Words


crisis

deceive

discard

indicate

occupy

- 1. Analyze Dialogue** Review the dialogue in Chapter 7. How does dialogue explain the crisis that the Tyrrans are facing?
- 2. Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** Discuss two Tyrrans who have different personalities.
  - **What Characters Do** What do these characters do?
  - **What Characters Say** Find examples of their dialogue that show what they are like.
  - **What It Shows** What do you learn about these two characters from the things they say and do?
- 3. Synthesize** How does the Lambchop family help to solve the crisis on Tyrra?
- 4.  BIG Question Generalize** Why is it important to know the weight of objects and people when exploring space?

## Discussion Guide

## Star Jumper, Part 2

Review the story words with your group. Then discuss these questions together.

## Story Words

advanced


cancel

duplicate

impress

reverse

COPY READY

- 1. Analyze** Review the dialogue between Zoe and Alex in Chapter 7. Alex thinks Zoe is impressed with his intelligence. Do you agree?
- 2. Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** How are Alex and Jonathan related?
  - **What Characters Do** Describe three things that Alex and Jonathan do that show what each character is like.
  - **What Characters Say** Find examples of things that Alex and Jonathan say that reflect the way they talk.
  - **What It Shows** What do you learn about these two characters from the things they say and do?
- 3. Synthesize** How is Alex's view of his adventures different from his mother's view of what happens?
- 4.  BIG Question Generalize** What kinds of advanced tools are required to explore space?

## Discussion Guide

# The Space Mission Adventure, Part 2

Review the story words with your group. Then discuss these questions together.

## Story Words


accomplishment

communicate

potential

simulate

successful

- 1. Analyze Dialogue** Review the dialogue between Ziggy and Ms. Washington in Chapter 8. Why does she say that Ziggy has “the mind of an astronaut”?
- 2. Describe Characters** Use these questions and the notes in the character chart to describe characters in the book.
  - **Characters** How are Ziggy and Ms. Washington similar?
  - **What Characters Do** Describe three things that Ziggy and Ms. Washington do that show what each character is like.
  - **What Characters Say** Find examples of things that Ziggy and Ms. Washington say that reflect the way they talk.
  - **What It Shows** What do you learn about these two characters from the things they say and do?
- 3. Synthesize** Why is the Black Dinosaur’s team successful on their mission?
- 4.  BIG Question Generalize** How could going to Space Camp help prepare students to become astronauts?

**Discussion Guide**

# Connect Across Texts

Share the story words with your group. Then take notes as you listen to each summary.

Moonshot

Stanley in Space, Part 2

Star Jumper, Part 2

The Space Mission Adventure, Part 2

Compare and contrast the books you have read. Discuss these questions with your group.

1. Which events in these books could really happen? Which events are impossible—or at least very, very unlikely?
2. How can reading stories about space exploration help you solve problems on Earth?
3. **Big Question** How do tools help astronauts explore space?

# Speaking and Listening Observation Log

Unit 7

As you monitor students in their small groups, put a check mark beside each behavior that you observe. Use conferences to coach students in developing speaking and listening skills.

Student Name																			
<b>Speaking and Listening Standards</b>																			
<b>Comprehension and Collaboration</b>																			
1. Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.																			
a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.																			
b. Follow agreed-upon rules for discussions and carry out assigned roles.																			
c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.																			
d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.																			
2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.																			
3. Identify the reasons and evidence a speaker provides to support particular points.																			



Name \_\_\_\_\_ Date \_\_\_\_\_

Book Title \_\_\_\_\_ Pages \_\_\_\_\_

# Reading Strategy Assessment

Unit 7

Check the reading strategies the student used and ask the questions that follow about how the student used the strategy. Use the rubric to help you determine how well the student used the strategy. Circle the student's score.

- Ask: *What did you do while you were reading?*  
*Were there any parts of the book that confused you or were hard to follow?*  
*What did you do to understand better?*  
*How did it work?*

COPY READY

Reading Strategy Rubrics			
Plan and Monitor	Make Connections	Visualize	
4 3 2 1	4 3 2 1	4 3 2 1	
<ul style="list-style-type: none"> <li>• <i>What did you do before you started reading the book?</i></li> <li>• <i>When you were reading, did you go back and reread any part of the book for better understanding?</i></li> <li>• <i>When you didn't understand, what did you do?</i></li> <li>• <i>How did the meaning become clear to you?</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Did you read anything in the book that connects to your life? What was that, and how does it connect?</i></li> <li>• <i>Did you read anything that reminded you of something else you read? What was that, and how does it connect?</i></li> <li>• <i>Did you read anything you already knew about in the world around you? What was that, and how does it connect?</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Was there a part of the book that made you visualize (see pictures in your mind)?</i></li> <li>• <i>How did this help you understand what you were reading?</i></li> <li>• <i>Are there particular words that helped you visualize?</i></li> </ul>	
<b>4</b>	Consistently previews text and makes and confirms predictions. Monitors when comprehension breaks down and demonstrates ability to clarify text successfully.	Makes text-to-self, text-to-text, and/or text-to-world connections to enhance comprehension. Can explain how connections enrich understanding.	Describes multi-sensory mental images that go beyond the literal text. Explains how this helped understanding.
<b>3</b>	Often previews text and makes and confirms predictions. Monitors comprehension, but cannot always clarify text independently.	Makes some type of relevant connection, but does not elaborate on how the connection helped understanding.	Describes multi-sensory mental images and goes beyond the literal text.
<b>2</b>	Sometimes previews and makes predictions, but may not confirm them. Can monitor when comprehension has broken down, but does not attempt to clarify text.	Attempts to make connections, but the connections are not relevant to understanding the text.	Describes few mental images directly related to text descriptions or pictures.
<b>1</b>	Does not preview or make predictions. Is not aware of how to monitor comprehension or clarify meaning.	Does not make connections with the text.	Does not describe mental images related to the text.

Name \_\_\_\_\_ Date \_\_\_\_\_

Book Title \_\_\_\_\_ Pages \_\_\_\_\_

# Reading Strategy Assessment

Unit 7

## Reading Strategy Rubrics

	Ask Questions 4 3 2 1	Make Inferences 4 3 2 1	Determine Importance 4 3 2 1	Synthesize 4 3 2 1
	<ul style="list-style-type: none"> <li>• What questions did you have when you were reading?</li> <li>• Did you find answers to the questions?</li> <li>• Can you tell me some examples of these kinds of questions and what you learned?</li> </ul>	<ul style="list-style-type: none"> <li>• Did you infer, or figure out, something in the book that was not stated directly?</li> <li>• Were there details in the book that helped you figure this out?</li> <li>• What did you already know about those details that helped you make this inference?</li> </ul>	<ul style="list-style-type: none"> <li>• What is an important idea in the book you chose?</li> <li>• Why do you think that is important?</li> <li>• How would you summarize this book for someone who has not read it?</li> </ul>	<ul style="list-style-type: none"> <li>• Tell me about the book you read. What about the book can you generalize, or say is true most of the time?</li> <li>• What can you conclude from these parts?</li> <li>• Based on this book and what you know about (topic), what do you think is probably true about (topic)?</li> </ul>
4	Expands text meaning by asking questions that address large concepts and clarify confusion. Can provide relevant examples related to the book.	Makes inferences using examples from the text and background knowledge. Can use inferences to interpret the text.	Uses many parts of the text (pictures, title, words) to accurately identify an important idea, and summarizes the important ideas in the book.	Synthesizes text accurately to draw conclusions and/or make generalizations. Can explain how synthesis helps comprehension.
3	Asks relevant questions and looks for answers to clarify confusion or understand the text.	Makes inferences that are consistent with the text or background knowledge. Cannot tell you how inference was made.	Identifies and summarizes some important ideas from the text using a few parts of the text. Cannot explain importance.	Combines some information from the text to draw basic conclusions or make limited generalizations.
2	Asks only literal questions.	Makes inferences that are inaccurate or unsubstantiated.	Attempts to identify and summarize important ideas, but is inaccurate.	Attempts to synthesize, but synthesis is limited or leads to inaccurate conclusions or generalizations.
1	Does not ask questions or asks irrelevant questions.	Does not attempt to make inferences.	Cannot identify an important idea.	Does not draw a conclusion or make a generalization about the text.

COPY READY

# Reader Reflection

Date	Title of Book	Author

**Check all that apply.**

1. Before I read this book, I:

- read the title.
- looked at the pictures.
- predicted what I would read about.  
I predicted: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. If I didn't understand what I was reading, I:

- stopped to think about what I had just read.
- read it again.
- other (describe): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. If I didn't understand a word while reading, I:

- stopped to think about its meaning.
- looked for clues to its meaning.
- checked in a dictionary or asked someone about the meaning of the word.
- other (describe): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. This book reminded me of something I know or read already. It reminded me of:

\_\_\_\_\_

\_\_\_\_\_

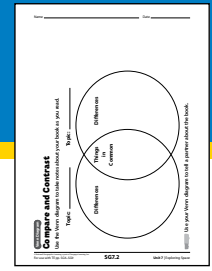
\_\_\_\_\_

\_\_\_\_\_

This book was:  easy     about right     hard

Rate this book! ☆ ☆ ☆ ☆ ☆

I would like to read other books:  about this topic     by this author

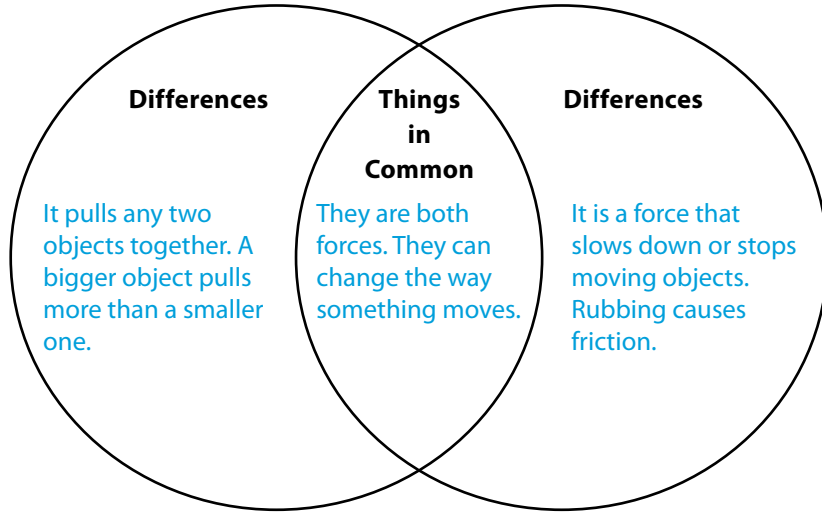


Practice Master SG7.2

## Venn Diagram Practice Master SG7.2

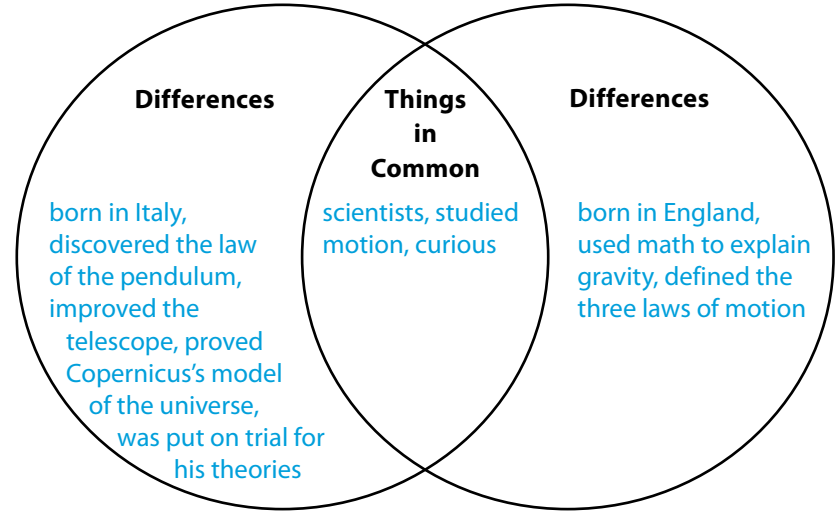
### BL Forces That Move

Topic: Gravity Topic: Friction



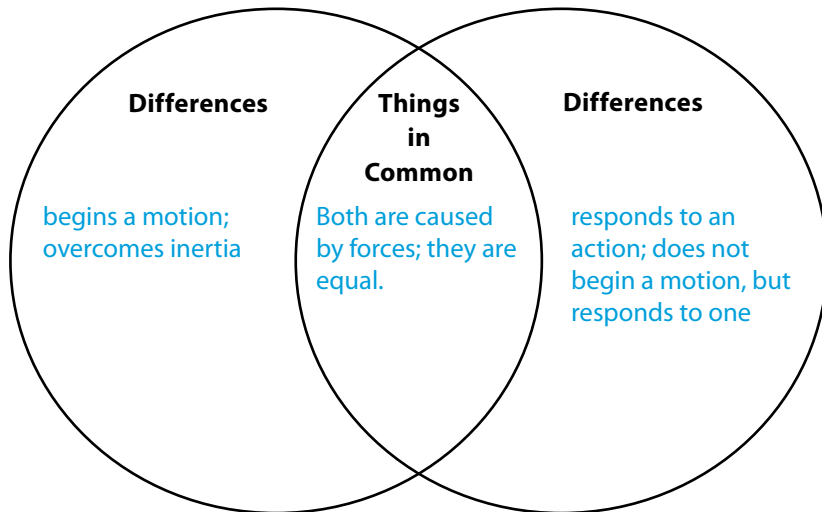
### BL Defining the Laws of Motion

Topic: Galileo Topic: Newton



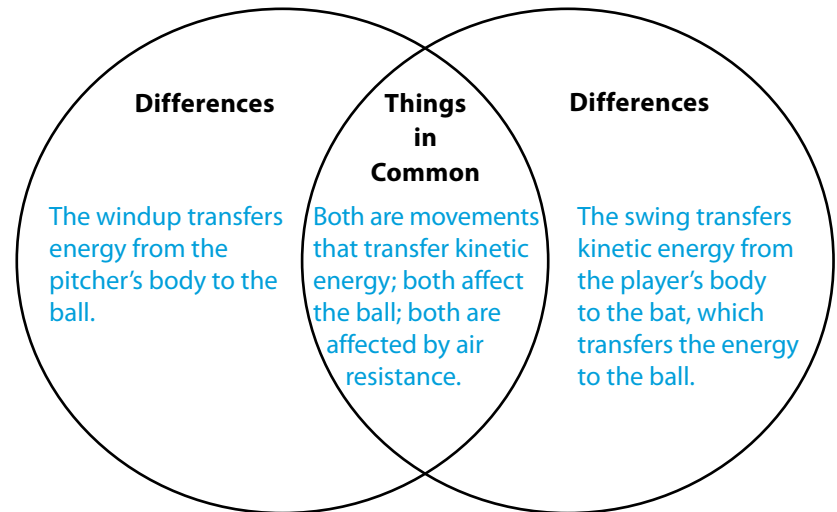
### OL Using Force and Motion

Topic: Actions Topic: Reactions



### AL The Science of Hitting a Home Run

Topic: The Pitch Topic: The Swing



# Discussion Guides

## Analyze Books

### **BL** Forces That Move

#### Practice Master SG7.3

- Analyze Text Features** Each photo shows a force that affects motion. They show gravity and friction. The captions help you understand what forces are shown in the photo.
- Compare and Contrast**
  - **Topics** Gravity and Friction
  - **Things in Common** Both are forces; both affect motion.
  - **Differences** Gravity can cause things to speed up or slow down. It is a force that pulls any two objects together. Friction is a force that makes things slow down or stop.
- Synthesize** Reading about snowboarding shows how people can use gravity and friction. Snowboarders reduce friction by using streamlined helmets and smooth boards. They use friction to slow down or stop. Gravity pulls them downhill.
- Generalize** Gravity and friction are forces that affect all motion, including spacecraft and astronauts.

### **OL** Using Force and Motion

#### Practice Master SG7.5

- Analyze Text Features** The diagram shows how ski jumpers use forces like gravity and friction. This information applies the general rules described about these forces.
- Compare Text Features** Both features have readers apply facts to answer questions about motion. The first focuses on measuring, the second on falling objects.
- Compare and Contrast**
  - **Topics** Actions and Reactions
  - **Things in Common** Both are motions cause by forces; they are equal in force.
  - **Differences** An action starts a motion. A reaction responds to an action. They are in opposite directions.
- Synthesize** The rider uses forces to push the pedals, which cause the wheels to spin. Friction pushes the wheel along the ground and moves the bicycle forward.
- Generalize** Scientists use force and motion to launch spacecraft and satellites. Astronauts study how forces differ away from Earth's gravity.



### Connect Across Texts Practice Master SG7.7

- Students should point out that every motion is the result of a force or a combination of forces. Gravity and friction affect all motions on Earth. Students might summarize Newton's three laws of motion to describe how forces and motion are related, or they might discuss the transfer of kinetic energy.

### **BL** Defining the Laws of Motion

#### Practice Master SG7.4

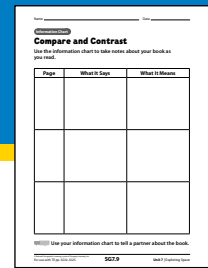
- Analyze Text Features** The red subheads summarize the information in each section. They help you find the main idea of each part of the chapter.
- Compare Text Features** The gallery gives basic biographical information about each scientist. The time line shows key events during their lives to help you understand the era.
- Compare and Contrast**
  - **Topics** Galileo and Newton
  - **Things in Common** Both were scientists; both studied motion; both were curious.
  - **Differences** Galileo discovered the law of the pendulum and improved the telescope. He proved that Earth is not the center of the universe, but was put on trial for his theories. Newton studied gravity and defined the three laws of motion.
- Synthesize** Scientists should be curious and determined to prove the truth, no matter what challenges they face.
- Generalize** Each scientist contributed to our understanding of motion and the universe. Without their ideas, space travel would be impossible.

### **AL** The Science of Hitting a Home Run

#### Practice Master SG7.6

- Analyze Text Features** The Table of Contents names the chapters. You can use this information to summarize important details in the book.
- Compare Text Features** Each diagram shows how the flow of air affects a ball. They show a straight pitch, a curveball, and backspin.
- Compare and Contrast**
  - **Topics** The Pitch and The Swing
  - **Things in Common** Both motions affect the ball; both transfer kinetic energy; the movement of the ball is also affected by the flow of air.
  - **Differences** The pitch transfers energy from the pitcher's body to the ball. The hit transfers energy from the bat to the ball.
- Synthesize** Hitting a home run and scoring a basket both involve the transfer of kinetic energy. In basketball, the player's energy is transferred to the ball. In a home run, the pitcher's energy and the batter's energy are transferred to the ball.
- Generalize** The transfer of energy is important in both sports and exploring space. Other ideas, including momentum, impact, and airflow, are also related.

- Encourage students to describe how everyday movements, such as walking, running, jumping, or brushing your teeth, involve gravity, friction, air resistance, and the transfer of kinetic energy.
- Scientists need to understand gravity and friction to launch satellites or spacecraft; they need to know how objects and people move in space.



Practice Master SG7.9

## Information Chart Practice Master SG7.9

### BL Lighter on the Moon

Page	What It Says	What It Means
7	Gravity determines weight.	When there's more gravity, you weigh more. If there's less gravity, you weigh less.
8	All objects have gravity.	Everything has some gravity. Bigger things have more gravity.
10	Walking on the moon feels like floating.	When there's less gravity, you feel different.

### BL Exploring Space

Page	What It Says	What It Means
8, 9	There are inner and outer planets.	The four inner planets share many things; so do the four outer planets.
15	Galileo believed the sun is the center of the solar system.	Facts can prove theories true.
16, 17	Multistage rockets were used to reach the moon.	Science can help people solve difficult problems.

### OL The International Space Station

Page	What It Says	What It Means
6	The truss holds everything together.	The truss connects all of the parts built by different countries.
8	Spacewalkers wear space suits.	People cannot live in space without some protection.
14	The Station falls toward Earth.	The Station is still affected by Earth's gravity, even though it is far away.

### AL Stars and Galaxies

Page	What It Says	What It Means
8	Distances in space are measured in light years.	Most units, like miles or kilometers, are too small to measure space.
12	Hydrogen atoms come together when a star forms.	All stars contain hydrogen.
19	The universe is expanding.	The universe will continue to expand and distances will increase.

# Discussion Guides

## Analyze Books

### BL *Lighter on the Moon*

#### Practice Master SG7.10

1. **Analyze a Science Report** The red heads summarize the information in each section. They help you identify the main ideas in each part of the report.
2. **Explain Scientific Text**
  - **What It Says** “Your weight is determined by how much Earth’s gravity pulls on you.”
  - **What It Means** Gravity depends on the size of an object. If an object is smaller, it has less gravity. So, if you are on a smaller planet or moon, you weigh less.
  - **What It Says and What It Means** “Walking on the moon felt like floating.” This means that it felt very different to be on the moon because of weighing so much less.
3. **Synthesize** You would weigh more than twice as much on Jupiter. It would probably feel hard to walk because you would feel so heavy.
4. **Generalize** Astronauts must plan how they will move in space, so they need to predict how much they will weigh in different places, including on the moon.

### OL *The International Space Station*

#### Practice Master SG7.12

1. **Analyze a Science Report** The diagrams show parts of the Station so you can see what they look like. The labels tell their names and give additional information about each part.
2. **Explain Scientific Text**
  - **What It Says** Computers on the Station use a lot of energy. The energy is made by solar cells and stored in batteries.
  - **What It Means** Solar cells collect sunlight and change it to electricity. They store the energy in batteries for times when the Station does not receive sunlight.
  - **What It Says and What It Means** The Station uses small engines to push the Station into a higher orbit. Even though the Station is far away from Earth, it is still affected by the pull of Earth’s gravity.
3. **Synthesize** Living on the Space Station, astronauts learn a lot about how to live in space. They learn how to keep safe by exercising and eating well.
4. **Generalize** The program is complicated, so it is easier to complete with the help of many countries. It also makes sense because space does not belong to any one country.

### Connect Across Texts **Practice Master SG7.14**

1. *Lighter on the Moon* describes why weight is different on Earth and on the moon. *Exploring Space* describes ideas and technology that help scientists reach the moon and investigate space. *The International Space Station* shows how countries work together to create a permanent research station in space. *Stars and Galaxies* helps readers understand Earth’s position in the universe.

### BL *Exploring Space*

#### Practice Master SG7.11

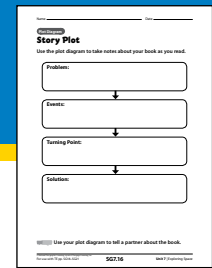
1. **Analyze a Science Report** The introduction describes the first time people landed on the moon. The rest of the book gives information that helps readers understand how this accomplishment was possible.
2. **Explain Scientific Text**
  - **What It Says** The four inner planets are closer to the sun. They are mostly solid and rocky. The four outer planets are farther from the sun. They are mostly made of gases.
  - **What It Means** Classifying inner and outer planets makes sense because planets in each group share many things.
  - **What It Says and What It Means** Multistage rockets helped astronauts reach the moon. As a rocket uses fuel, it drops a stage and gets lighter, which makes it easier to push farther into space.
3. **Synthesize** Robots go places in space that would be unsafe for astronauts. Astronauts do experiments and guide ships.
4. **Generalize** Tools include rockets, space suits, telescopes, and different kinds of satellites.

### AL *Stars and Galaxies*

#### Practice Master SG7.13

1. **Analyze a Science Report** The text defines light-years, the unit used to measure distances in space. A diagram shows the distance between Earth and the sun to illustrate 8 “light-minutes.”
2. **Explain Scientific Text**
  - **What It Says** First, gravity pulls materials into a ball, which contracts and heats up. Hydrogen atoms come together to form helium and give off energy. When the energy runs out after billions of years, the outer layers expand, and the star cools and dies.
  - **What It Means** Students should describe the life stages of a star in their own words.
  - **What It Says and What It Means** The big bang theory suggests that a dense hot universe began to expand in a violent rush, and the universe is still expanding.
3. **Synthesize** Earth is one of the inner planets in our solar system, which is part of the Milky Way Galaxy, which, in turn, is one of billions of galaxies.
4. **Generalize** Telescopes on Earth and in space help scientists collect information about light and other data from distant stars and galaxies.

2. Students might point out that many of the topics related to space exploration, such as gravity, are important every day. We are also aware of and affected by things that happen in the universe.
3. Scientists need to understand gravity, the use of energy in space, how to live in space, and what creates stars and galaxies.



Practice Master SG7.16

## Plot Diagram Practice Master SG7.16

### BL Richie's Rocket

**Problem:**

After going to the planetarium, Richie wants to explore space.

**Events:**

He builds a rocket on the roof. He closes his eyes and the rocket blasts off. He is weightless in outer space. A rocket tows him to the moon. He explores.

**Turning Point:**

He feels lonely on the moon and wants to go home.

**Solution:**

Richie returns home. He opens his eyes and goes downstairs to breakfast.

### BL Stanley in Space\*

**Problem:**

Tyrrans contact Earth because they have run out of food.

**Events:**

The President sends the Lambchops to Tyrra. They meet the tiny Tyrrans and find out about the food shortage on Tyrra.

**Turning Point:**

The Lambchops decide to help the Tyrrans by bringing them back to Earth.

**Solution:**

They remove enough things from the ship so all of the Tyrrans can come to Earth while the food on their planet grows back.

### OL Star Jumper\*

**Problem:**

Alex wants to escape from his pesky younger brother, Jonathan.

**Events:**

Alex builds *Star Jumper*. Jonathan finds out. Alex builds a Micro-Blaster and shrinks Jonathan, but then returns him to normal size. Alex builds the Duplicator and makes a copy of himself.

**Turning Point:**

Jonathan gets in and makes a lot of copies of himself, too, creating enormous confusion.

**Solution:**

Alex manages to make all of the copies disappear and has fun playing with his younger brother, though he still plans to escape later.

### AL The Space Mission Adventure\*

**Problem:**

Ziggy finds a mysterious green stone that he thinks might be from space.

**Events:**

Ziggy and the Black Dinosaurs arrive at Space Camp. They meet other campers and ride the multi-axis trainer. Ziggy finds a stone and shows it to his friends. They wonder where it came from.

**Turning Point:**

Ziggy meets Ms. Washington and asks her about the mysterious stone.

**Solution:**

It is the stone from a piece of jewelry. Ms. Washington lost it the night before at a party at the space center.

\*Possible responses for Part 1 and Part 2 of the book are shown.

\*Possible responses for Part 1 and Part 2 of the book are shown.



# Discussion Guides

## Analyze Books

### BL *Richie's Rocket*

#### Practice Master SG7.17

1. **Analyze Dialogue** Richie is curious and enthusiastic. He is energetic and likes exploring new places.
2. **Comprehend Plot**
  - **Problem** Richie wants to explore space.
  - **Events** Richie closes his eyes. Then, the rocket blasts off and Richie goes to space. An astronaut sees Richie and agrees to tow his rocket to the moon. Then, Richie explores the moon.
  - **Turning Point** Richie is lonely on the moon because there is no one else there.
  - **Solution** Richie opens his eyes and is back home. He is happy to be there and goes down to breakfast.
3. **Synthesize** Richie imagines that he visits space. He probably falls asleep and dreams that the rocket blasts off.
4. **Generalize** Like a trained astronaut, Richie is curious about space and wants to find out what it is like to be there.

### OL *Star Jumper* PART 1

#### Practice Master SG7.19

1. **Analyze Dialogue** Alex has a sarcastic sense of humor. Jonathan asks a lot of questions. Alex is interested in space exploration. Jonathan is interested in castles.
2. **Analyze Dialogue** The dialogue between Alex and his brother shows how Jonathan tries to get Alex to open his door. Their words tell what they are doing.
3. **Comprehend Plot**
  - **Problem** Alex's biggest problem is his pesky little brother, Jonathan.
  - **Events** Alex makes a spaceship, a spacesuit, and an "atom slider" engine to get the ship out of the house.
4. **Synthesize** Yes, most of Alex's inventions do what he plans for them to do, although they also create confusion.
5. **Generalize** Alex bases his inventions on scientific truths. For example, he knows that there is no oxygen in space, so he invents an oxygen generator he can use when he goes there.

## Connect Across Texts Practice Master SG7.21

1. Richie in *Richie's Rocket* and Alex in *Star Jumper* create spaceships of cardboard and imagine launching into space. Stanley's family members become real astronauts in *Stanley in Space*, using imagination to help solve problems. The Black Dinosaurs in *The Space Mission Adventure* use their imaginations to think about space and to work as a team.
2. Reading fiction helps you understand what is and isn't possible in space exploration. For example, many events in *Richie's Rocket*, *Stanley in Space*, and *Star Jumper* are impossible, but the events in *The Space Mission Adventure* could really happen.
3. A good astronaut is curious and willing to learn, and also works well on a team.

### BL *Stanley in Space* PART 1

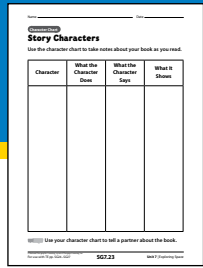
#### Practice Master SG7.18

1. **Analyze Dialogue** Mr. And Mrs. Lambchop like quiet, peaceful days. Stanley has a sense of humor. Arthur worries.
2. **Compare Dialogue** The Tyrrans talk very much like people of Earth. Captain Ik is angry and wants to fight people. They use some words, like *chap*, that are more common in England.
3. **Comprehend Plot**
  - **Problem** The President has received a message from a planet called Tyrra and needs someone to go there.
  - **Events** He sends the Lambchop family in a spaceship called *Star Scout*. They meet the Tyrrans, who are tiny.
4. **Synthesize** The family relationships and the way people react are believable. The details of space travel and the way the family is selected to go to outer space are not.
5. **Generalize** Students might suggest that the Lambchops are good astronauts because they are curious and reflect average people, or they might say they have not had enough training to be good astronauts.

### AL *The Space Mission Adventure* PART 1

#### Practice Master SG7.20

1. **Analyze Dialogue** Ziggy is energetic, funny, and enjoys surprising people. He has an active imagination. The other members of the club are amused by Ziggy.
2. **Compare Dialogue** The other students at Space Camp are also interested in exploring space. Cubby knows a lot of facts and enjoys sharing them.
3. **Comprehend Plot**
  - **Problem** Ziggy finds a mysterious green object on the surface of the artificial moon.
  - **Events** The Black Dinosaurs go to Space Camp. They meet the students and counselors there, and ride the multi-axis trainer.
4. **Synthesize** Space Camp combines educational activities, such as films, with entertaining activities, such as riding in the multi-axis trainer.
5. **Generalize** Astronauts might enjoy sharing their experiences with young people; they may hope to inspire others to become astronauts.



Practice Master SG7.23

## Character Chart Practice Master SG7.23

### BL Moonshot

Character	What the Character Does	What the Character Says	What It Shows
Neil Armstrong	He rides to the moon; he walks on the moon.	He is calm when he says "The <i>Eagle</i> has landed."	Armstrong is a trained astronaut who does his job well. He takes his job seriously and knows that it is important.

### BL Stanley in Space\*

Character	What the Character Does	What the Character Says	What It Shows
Stanley	He goes to Tyrra; he comes up with the idea of bringing the Tyrrans to Earth to save them.	He is excited by things he experiences; he does not complain as much as his brother, Arthur.	Stanley is smart and adventurous; he is also caring and likes to solve problems.

### OL Star Jumper\*

Character	What the Character Does	What the Character Says	What It Shows
Alex	He builds a Micro-Blaster and a Duplicator; he rescues Jonathan.	He brags about his accomplishments	He is smart and very sure of himself; he also cares about his brother, even though he says he doesn't.

### AL The Space Mission Adventure\*

Character	What the Character Does	What the Character Says	What It Shows
Ziggy	He goes on the multi-axis trainer; he contributes to the team mission; he talks with Ms. Washington.	He has a good sense of humor; he talks a lot about his dreams.	Ziggy is energetic and enthusiastic about things.

\*Possible responses for Part 1 and Part 2 of the book are shown.

\*Possible responses for Part 1 and Part 2 of the book are shown.

# Discussion Guides

## Analyze Books

### BL Moonshot

#### Practice Master SG7.24

- Analyze Dialogue** Armstrong sends a message to Mission Control, “The *Eagle* has landed.” He sounds very calm, which shows he is well prepared and takes his job seriously.
- Describe Characters**
  - Characters** Neil Armstrong, Michael Collins, Buzz Aldrin; scientists at Launch Control in Florida and Mission Control in Houston; a large audience on Earth
  - What Characters Do** The astronauts put on heavy space suits; they strap themselves into the *Columbia*.
  - What Characters Say** Systems are “go” for the launch.
  - What It Shows** Everyone on the team must be ready before the launch begins.
- Synthesize** Wearing heavy spacesuits on Earth is awkward; being weightless can also be awkward, and doing simple things like sleeping and eating are difficult. But, the experience is also exciting because it is so unusual.
- Generalize** It takes a large team—including astronauts, scientists, and others—to make sure the three men travel safely into space.

### OL Star Jumper PART 2

#### Practice Master SG7.26

- Analyze Dialogue** Zoe says that Alex’s math looks “advanced,” so she might be impressed by Alex. But, she does not say very much else and ends the conversation quickly, so she might not be impressed.
- Describe Characters**
  - Characters** Alex and Jonathan are brothers.
  - What Characters Do** Alex invents a Micro-Blaster and shrinks his brother; he invents the Duplicator to make copies of himself. Jonathan watches his brother working; he gets into the Duplicator and makes copies of himself.
  - What Characters Say** Alex: “Holy Copernicus! Please don’t let the tri-fibrillator short-circuit.” Jonathan: “I’m telling!”
  - What It Shows** Alex is smart and likes to use scientific language. Jonathan likes to watch his big brother and complain to his parents.
- Synthesize** Alex believes that all of his inventions work; his mother only sees the mess they create and does not know about any of his adventures.
- Generalize** Space travel requires advanced tools, such as space suits, engines, and weapons to protect astronauts.

## Connect Across Texts Practice Master SG7.28

- The events in *Moonshot* and *The Space Mission Adventure* are realistic. The events in *Stanley in Space* and *Star Jumper* could not happen in real life.

### BL Stanley in Space PART 2

#### Practice Master SG7.25

- Analyze Dialogue** President Ot explains how the food of Tyrra was destroyed. His words tell why they are all starving.
- Describe Characters**
  - Characters** Captain Ik and President Ot
  - What Characters Do** Captain Ik tries to attack the Lambchops; President Ot talks to them calmly and explains why Tyrra is in trouble.
  - What Characters Say** Captain Ik: “Surrender, Earth people.” President Ot: “The fact is, we’re having a . . . a crisis, actually.”
  - What It Shows** Ik has a bad temper and tries to solve things with force. Ot is more polite and tries to solve things by talking about them.
- Synthesize** The Lambchops decide to bring all of the Tyrrans back to Earth while the food grows back on their planet.
- Generalize** Rockets can only carry a certain amount of weight, so it is important to know how much everything in a rocket weighs.

### AL The Space Mission Adventure PART 2

#### Practice Master SG7.27

- Analyze Dialogue** She says that Ziggy is creative and a dreamer, both of which are good traits for an astronaut.
- Describe Characters**
  - Characters** Both Ziggy and Ms. Washington are enthusiastic.
  - What Characters Do** Ziggy finds a strange object and dreams about what it might be; he lets his imagination run wild. Ms. Washington talks to students openly about what it is like to be an astronaut; she loses the stone from a pin.
  - What Characters Say** Ziggy: “Zowie! I have found my destiny!” Ms. Washington: “You are a dreamer, Ziggy, and that’s probably the best thing in the world you can be.”
  - What It Shows** Ziggy is open, enthusiastic, and silly. Ms. Washington encourages people to dream and reach their potential.
- Synthesize** The Black Dinosaurs are successful on their mission because they work together, and each team member does his job well.
- Generalize** Space Camp teaches campers a lot about exploring space. It could also inspire them to get more training and follow their dreams.

- Reading fiction can help you learn about teamwork and how to apply science to solve problems.
- Tools, such as rockets, spacesuits, simulators, and oxygen tanks, help astronauts explore space safely.



## Recommended Books

### Fiction About Space

Cole, Joanna. **The Magic School Bus Lost in the Solar System**. Scholastic, 1990.

Daley, Michael J. **Space Station Rat**. Holiday House, 2005.

Leonard, Jane. **Seeing the Sky**. National Geographic, 2006.

Yolen, Jane. **Commander Toad and the Big Black Hole**. 1983. Reprint: G. P. Putnam's Sons, 1996.

BL

Johnson, David. **Trapped in Space**. 2003. Reprint: Stone Arch Books, 2007.

Krensky, Stephen. **The Great Moon Hoax**. Lerner, 2011.

Moore, Eva. **Space Explorers**. Scholastic, 2000.

Yolen, Jane. **Commander Toad and the Planet of the Grapes**. Puffin, 1996.

BL

Bennett, Jeffrey. **Max Goes to the Moon**. Publishers Group West, 2003.

Dahl, Roald. **Charlie and the Great Glass Elevator**. 1972. Reprint: Viking Penguin, 2007.

L'Engle, Madeleine. **A Wrinkle in Time**. 1962. Reprint: Square Fish, 2007.

COMMON CORE EXEMPLAR NEWBERY MEDAL BOOK

Montgomery, R. A. **Space and Beyond**. ChooseCo, 2005.

OL

Cameron, Eleanor. **The Wonderful Flight to the Mushroom Planet**. 1954. Reprint: Little, Brown, & Co., 1988.

Hawking, Lucy & Stephen. **George's Cosmic Treasure Hunt**. Simon & Schuster, 2009.

Hawking, Lucy & Stephen. **George's Secret Key to the Universe**. Simon & Schuster, 2007.

Stannard, Russell. **The Time and Space of Uncle Albert**. Faber Childrens, 2005.

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### Nonfiction About Space

Florian, Douglas. **Comets, Stars, The Moon, And Mars: Space Poems And Paintings**. Harcourt, 2007.

Korb, Rena B. **Groovy Gravity**. Magic Wagon, 2007.

Oxlade, Chris. **Why Why Why Do Astronauts Float In Space?** Mason Crest Publishers, 2009.

Murphy, Patricia. **Exploring Space with an Astronaut**. Enslow Publishers, 2004.

Berger, Melvin. **Discovering Mars: The Amazing Story of the Red Planet**. Scholastic, 1997.

COMMON CORE EXEMPLAR

Jouhar, Bilal. **Our Place in Space**. National Geographic, 2006.

Waxman, Laura Hamilton. **Exploring Black Holes**. Lerner, 2012.

Zappa, Marcia. **Space Stations**. ABDO Publishing Company, 2011.

Bailey, Jacqui. **Up, Down, All Around: A Story of Gravity**. 2003. Reprint: Picture Window Books, 2006.

Osborne, Will & Mary Pope. **Space**. Random House, 2002.

Rau, Dana M. **Space Exploration**. Compass Point Books, 2003.

Tomacek, Steve. **Moon**. National Geographic, 2005.

Dyson, Marianne J. **Home On The Moon: Living On A Space Frontier**. National Geographic, 2003.

Floca, Brian. **Moonshot: The Flight of Apollo 11**. Simon & Schuster, 2009.

COMMON CORE EXEMPLAR

Green, Dan. **Astronomy: Out of This World!** Kingfisher, 2009.

Schyffert, Bea Uusma. **The Man Who Went to the Far Side of the Moon**. Chronicle Books, 2003.



**Author Study: Dianna Hutts Aston**  
**A Butterfly Is Patient**. Chronicle Books, 2011.  
**Dream Something Big: The Story Of The Watts Towers**. Dial, 2011.  
**An Egg Is Quiet**. Chronicle Books, 2006.  
**A Seed Is Sleepy**. Chronicle Books, 2007.



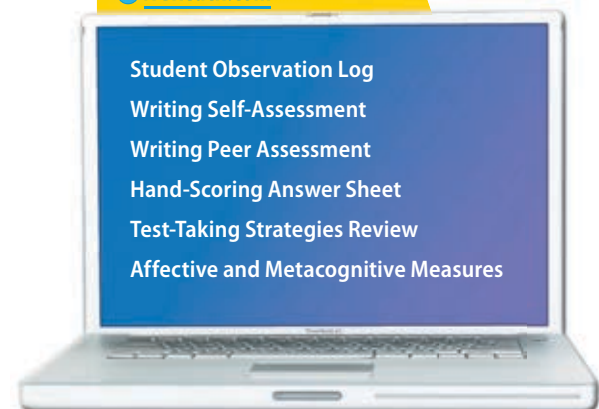
**Author Study: Anastasia Suen**  
**Doctors Without Borders**. Rosen Publishing Group, 2004.  
**Man on the Moon**. 1997. Reprint: Viking Penguin, 2002.  
**The Story of Soccer**. Rosen Publishing Group, 2002.  
**Wired**. Charlesbridge Publishing, 2007.

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Writing, Revising, and Editing Test .....	A7.8		
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### Online Assessment Resources

[NGReach.com](http://NGReach.com)



# Oral Reading Assessment

## Unit 7

What would you think if you suddenly saw a new object in the night sky? Would you be afraid of it? Would you want to learn more about it? People have always wondered about bright objects in the sky. In ancient times, people watched the sky carefully. They noticed that some lights appeared suddenly and had what looked like long tails. People didn't know what to think of these objects that didn't move regularly through the sky like the stars, the moon, and the planets.

Today, we understand more about these strange objects. We call them comets. They are huge flying "dirty snowballs" made of dust and ice. Most scientists believe that comets are made up of scraps of material left over after the planets were formed.

The orbit of most comets in our solar system is very long and lopsided, and these comets can travel very fast through space when they are near the sun. That's why comets seem to appear suddenly. It can be many years from one encounter of a comet with the Earth to the next.

As a comet nears the sun, pieces of the comet break away or are vaporized (turned into gas). The gas streams away from the sun, looking like a tail. Each comet actually has two tails: one tail made of gas and another made of dust. The tail that is made of dust is shorter, and curves a little around the comet. The tail that is made of gas is straight and can stretch for millions of miles!

How will you feel the next time you see a new light in the night sky? If you see a tail on the light, it might be a comet. Then you can look up information about it. You might even see the same comet later in your lifetime, and the next time, you won't be so surprised.

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COPY READY

# Oral Reading Assessment

**Accuracy and Rate**

$$\frac{\text{words attempted in one minute} - \text{number of errors}}{\text{words attempted in one minute}} = \frac{\text{words correct per minute (wcpm)}}{\text{words attempted in one minute}}$$

2006 Hasbrouck & Tindal Oral Reading Fluency Data				
Grade	Percentile	Fall WCPM	Winter WCPM	Spring WCPM
4	90	145	166	180
	75	119	139	152
	50	94	112	123
	25	68	87	98
	10	45	61	72

Oral Reading Fluency Rubrics			
	Automaticity	Phrasing	Intonation
<b>Circle Score</b>	4 3 2 1	4 3 2 1	4 3 2 1
<b>4</b>	Reads smoothly and automatically. Pace is consistent.	Consistently pauses at all appropriate places in the text.	Changes pitch to match all of the content.
<b>3</b>	Reads most words automatically but still pauses to decode some words. Pace varies but is mostly consistent.	Frequently pauses at all appropriate places in the text.	Changes pitch to match some of the content.
<b>2</b>	Pauses to decode many words. Pace is slow with occasional stops and starts.	Occasionally pauses while reading the text.	Changes pitch, but does not match the content.
<b>1</b>	Can only read some high frequency words automatically. Pauses to decode all others or skips words. Pace is very slow and irregular with many stops and starts.	Rarely pauses while reading the text.	Does not change pitch.
			<b>Expression</b>
			4 3 2 1
			Reads with appropriate feeling for all content.
			Reads with appropriate feeling for most content.
			Reads with appropriate feeling for some content.
			Does not read with feeling.

# Oral Reading Assessment

Unit 7

Retelling Rubric				
Circle Score	4	3	2	1
4	Student provides an accurate and complete retelling of the passage that includes the main idea and supporting details presented in a logical order.			
3	Student's retelling is accurate and coherent but some elements and supporting details may be missing.			
2	Student provides some details from the passage, but the retelling does not demonstrate understanding of the main idea and lacks coherence. Or, student may identify the topic without any elaboration.			
1	Student is not able to retell the passage or retells it inaccurately.			

Observations and Notes:

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## Oral Reading Assessment Wrap-up

- Ask the student about his or her reading. You can prompt the student with questions such as:
  - Did you have any problems reading this passage?*
  - If yes: *What problems did you have?*
  - What did you do when you didn't know a word?*
- Share the positive things you noticed about the student's reading, for example:
  - I noticed that you read with a lot of expression.*
  - Your reading is getting smoother. You don't stop as often as you used to.*
- Make suggestions about what improvements are needed, for example:
  - Try to read more smoothly without stopping between words.*
- If you asked the student to retell the story, make notes about what the student needs to improve, e.g., distinguish the main idea from details, or present events in the proper sequence.



# Reading Comprehension Test

Unit 7, Week 1

**Directions:** Read the article. Then answer the questions about the article.



## Eating in Space



COPY READY

People in space need to eat, of course. However, it is not easy to eat when your food keeps floating away from you! Over the years, scientists have learned a lot about how to make food that can stay fresh for a long time and that will not float away.

When space travel first began, the food choices were limited. One type of food was a paste in a tube that had to be squeezed into their mouths. They also ate dried foods and powdered foods. Although easy to eat, these foods did not taste very good.

Astronauts complained about the food, so changes were made. Soon there were foods to eat with a fork or spoon. Astronauts also had more foods to choose from.

Today, space foods are still easy to eat, but now they taste good too. Astronauts enjoy soups and salads. They have many different main dishes, such as chicken and spaghetti. They snack on fresh fruits and vegetables, like oranges and carrot sticks. They even eat chocolate cake for dessert! Now when astronauts eat a meal in space, it's almost like they are eating at home, but with an amazing view!



**An astronaut enjoys a tortilla in space.**

GO ON

# Reading Comprehension Test

Unit 7, Week 1

1 Today's space food is **similar** to early space food because it —

- (A) is easy to eat.
- (B) includes tortillas.
- (C) is a paste in a tube.
- (D) includes fresh vegetables.

2 Today's space food is **different** from early space food because it —

- (A) is powdered.
- (B) is easy to eat.
- (C) tastes good.
- (D) floats away.

3 Today's space food is eaten with a fork or spoon. From this, you can conclude that the food —

- (A) needs to be cooked.
- (B) looks like food on Earth.
- (C) is made fresh each day.
- (D) floats around the spacecraft.

4 Most astronauts probably think that today's space food is —

- (A) not healthy.
- (B) not expensive.
- (C) easy to prepare.
- (D) enjoyable to eat.

COPY READY

Score
_____/4

DONE!

# Vocabulary Test

Unit 7, Week 1

**Directions:** Choose the answer that completes the sentence correctly.

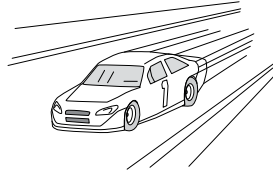
1 The boy and girl are different \_\_\_\_\_.

- (A) rituals
- (B) heights
- (C) commands
- (D) adventures



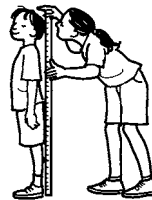
2 The car \_\_\_\_\_ quickly.

- (A) spreads
- (B) interacts
- (C) accelerates
- (D) decomposes



3 I \_\_\_\_\_ how tall my son is.

- (A) introduce
- (B) measure
- (C) generate
- (D) breathe



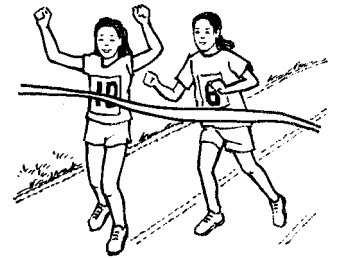
4 This runner's \_\_\_\_\_ is very fast.

- (A) motion
- (B) interest
- (C) material
- (D) elevation



5 These runners move at top \_\_\_\_\_.

- (A) prey
- (B) mold
- (C) speed
- (D) balance



COPY READY

GO ON

# Vocabulary Test

Unit 7, Week 1

Directions: Choose the answer that completes the sentence correctly.

6 To \_\_\_\_\_ a problem means to figure it out.

- (A) suggest
- (B) express
- (C) invade
- (D) solve

7 A \_\_\_\_\_ gives size comparisons.

- (A) port
- (B) force
- (C) scale
- (D) ritual

8 \_\_\_\_\_ is the amount of space between things.

- (A) Distance
- (B) Treasure
- (C) Memory
- (D) Power

9 The \_\_\_\_\_ of an action is its speed.

- (A) globe
- (B) chart
- (C) tool
- (D) rate

10 An \_\_\_\_\_ is an amount that is usual for a group.

- (A) artifact
- (B) average
- (C) exploration
- (D) environment

COPY READY

Score
_____/10

DONE!

# Writing, Revising, and Editing Test

Directions: Read the paragraph. Then answer the questions.

Animals like the cheetah can travel 1 fast. Other animals, however, 2 seem to be in any big hurry. You're 3 thinking "snails," right? Snails do crawl 4 slowly, but even some large animals prefer to take their time. One of the slowest mammals is the tree sloth. Sloths 5 spend many years in the same tree. They move so 6 that algae grow on their fur!

1 Choose the answer that goes in Blank 1.

- (A) miles
- (B) amazing
- (C) awesome
- (D) incredibly

2 Choose the answer that goes in Blank 2.

- (A) not
- (B) true
- (C) never
- (D) move

GO ON 

## Writing, Revising, and Editing Test

Unit 7, Week 1

3 Choose the answer that goes in Blank 3.

- (A) like
- (B) slowest
- (C) probably
- (D) guessing

4 Choose the answer that goes in Blank 4.

- (A) quite
- (B) slime
- (C) gentle
- (D) minutes

5 Choose the answer that goes in Blank 5.

- (A) lazy
- (B) often
- (C) regular
- (D) common

6 Choose the answer that goes in Blank 6.

- (A) small
- (B) relaxed
- (C) inactive
- (D) sluggishly

GO ON 

## Writing, Revising, and Editing Test

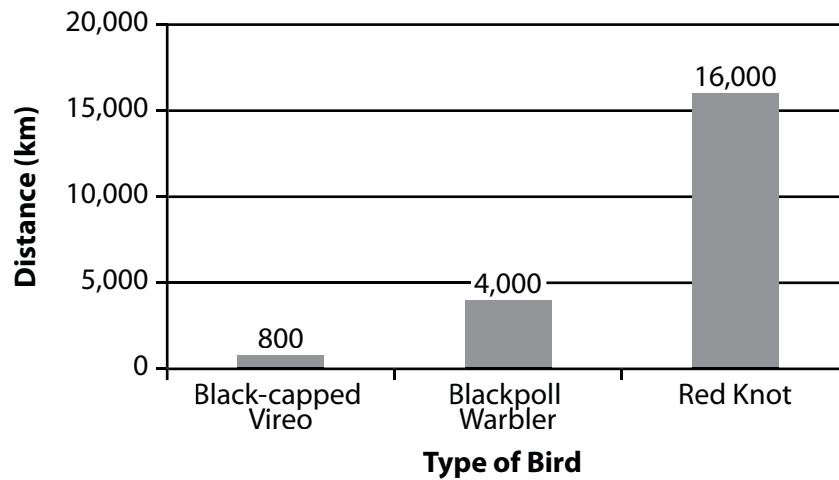
- 7 You are writing a report on bird migration for a class science project. Read the short article and study the graph. Then write a paragraph using information from both sources.

Many North American birds escape the harsh northern winters by flying south. Some birds, like the black-capped vireo, nest in the southern United States and winter in Mexico, so they need to fly only a short distance.

The blackpoll warbler has a much longer migration. From its nesting grounds in the northern U.S. and Canada, it flies nonstop every year to its winter home in South America. That is between three and four days of nonstop flying!

The longest-traveling North American birds are shore birds, like the red knot, that nest in northern Canada and fly all the way to the southern tip of South America.

Migration Distances of North American Birds



Score	
_____ / 6	multiple-choice
_____ / 4	writing

**DONE!**

# Reading Comprehension Test

Unit 7, Week 2

**Directions:** Read the science article. Then answer the questions about the article.

## Stars: Some Are Hot and Some Are Not

We can see hundreds, even thousands of stars in the night sky. Though they seem to be nearby, the closest star is 24 *trillion* miles away! From that distance, stars can all look alike. In truth, they can be as different from each other as a starfish is from an elephant.

### Temperature

Take temperature, for example. Our Sun is almost 11,000 degrees on its surface and an astonishing 27 million degrees at its core. There are many other stars like the Sun. Scientists call a group of stars like this a family.

Other families of stars are not very hot at all. They are either fading out or never warmed up in the first place. These stars cool over time, and some of them are only as warm as your oven when it bakes cookies. The stars in this family are called brown dwarfs.

### Exciting Discovery

Since a brown dwarf gives off weak light, it's almost impossible to see with a regular telescope. In 2011, using special infrared equipment, scientists discovered the coldest stars ever found. These fading stars are called Y dwarfs. Your body temperature is around 98.6 degrees. That's about how cool the Y dwarfs are.

Several of these newly discovered stars are pretty close to Earth. Michael Cushing is one of the scientists who helped find these cool stars. He said that it was "like discovering there's a hidden house on your block that you didn't know about. It's thrilling to me to know we've got neighbors out there yet to be discovered."

The coldest star that Cushing and his co-workers have found is below 80 degrees. How cool is that?





**Reading Comprehension Test****Unit 7, Week 2****COPY READY**

- 1** The title of the article can help you understand that —
- (A) stars are very far away.
  - (B) the Sun is a very hot star.
  - (C) scientists are discovering new stars.
  - (D) stars have very different temperatures.
- 2** In the part of the article under “Exciting Discovery,” what is the most important idea?
- (A) Brown dwarf stars give off weak light.
  - (B) Some Y dwarfs are pretty close to Earth.
  - (C) Scientists have found the coldest stars ever.
  - (D) Special equipment is needed to see Y dwarfs.
- 3** Which of these is a **fact**?
- (A) Discovering new stars is exciting.
  - (B) From Earth, most stars look alike.
  - (C) Scientists group stars into families.
  - (D) It’s thrilling to find new stars close to Earth.
- 4** Which of these is an **opinion**?
- (A) The surface of the Sun is hotter than you can imagine.
  - (B) The coldest star ever found is below 80 degrees.
  - (C) Scientists discovered Y dwarf stars in 2011.
  - (D) There are many other stars like the sun.
- 5** The author says that stars can be “as different from each other as a starfish is from an elephant.” What facts from the article support this opinion?
- (A) Scientists have known about brown dwarfs but just recently discovered Y dwarfs.
  - (B) All brown dwarfs are cool, but some are fading while others never warmed up.
  - (C) The Sun is 27 million degrees while Y dwarfs can be less than 80 degrees.
  - (D) Y dwarf stars are even cooler than brown dwarfs.
- 6** Which of these supports the author’s opinion that scientific discovery is exciting?
- (A) Stars seem close but are trillions of miles away.
  - (B) Some stars are as cool as an oven used to bake cookies.
  - (C) Michael Cushing thinks of the Y dwarfs as Earth’s neighbors.
  - (D) Michael Cushing describes the discovery of Y dwarfs as thrilling.

**Score**

\_\_\_\_\_/6

**DONE!**

# Vocabulary Test

Unit 7, Week 2

Directions: Read the question. Choose the best answer.

1 What does land mean in this sentence?

The astronauts land on the moon.

- (A) a country
- (B) the ground
- (C) get something
- (D) come down to the surface

2 What does watch mean in this sentence?

We watch the rocket ships take off.

- (A) look at
- (B) protect
- (C) time when a person guards
- (D) a clock to wear on your arm

Directions: Read the questions. Use the dictionary entry to choose the best answer.

**light (lit)** *noun* **1** energy from the sun, stars, lamps, and fires  
**2** something that gives off light *adjective* **3** not heavy, weighing only a little *verb* **4** to start something burning

3 Which meaning of light is used in this sentence?

Brenda will light the campfire at sunset.

- (A) meaning 1
- (B) meaning 2
- (C) meaning 3
- (D) meaning 4

4 Which meaning of light is used in this sentence?

Sam was surprised the trunk felt so light.

- (A) meaning 1
- (B) meaning 2
- (C) meaning 3
- (D) meaning 4

Score  
 \_\_\_\_\_/4

**DONE!**

# Writing, Revising, and Editing Test

Directions: Read the paragraph. Then answer the questions.

Though race cars are fast, they are standing still compared to things flying through space. Earth travels about 22,000 miles per hour around the sun. As fast as that sounds, it travels 1 than most rockets. The vehicle dashing 2 through the solar system is the New Horizons spacecraft on its way to Pluto. It travels even 3 than Earth does—about 36,000 miles per hour! Moving even 4 than rockets are space rocks, called *meteoroids*. Some fall to Earth every year during a display of “shooting stars” called the *Orionids*. These meteoroids zip along at around 148,000 miles per hour. The 5 condition for watching the *Orionids* is a clear sky. You can see the shooting stars 6 if you can find an area with no city lights. None of these objects can outrun light, at about 186,000 miles per second. If you could run that fast, you could go around Earth seven times in less than a second!

1 Choose the answer that goes in Blank 1.

- (A) least swift
- (B) less swiftly
- (C) less swifter
- (D) least swiftly

2 Choose the answer that goes in Blank 2.

- (A) rapidest
- (B) rapidliest
- (C) the most rapidly
- (D) the more rapidly

GO ON 

## Writing, Revising, and Editing Test

3 Choose the answer that goes in Blank 3.

- (A) quicklier
- (B) quickerly
- (C) most quickly
- (D) more quickly

4 Choose the answer that goes in Blank 4.

- (A) faster
- (B) fastest
- (C) fastlier
- (D) more fastly

5 Choose the answer that goes in Blank 5.

- (A) best
- (B) bestest
- (C) goodest
- (D) most good

6 Choose the answer that goes in Blank 6.

- (A) weller
- (B) better
- (C) gooder
- (D) more well

7 Read this paragraph from a student report. Even though the sentences are correct, they are too long. The reader gets lost before he or she gets to the end. Rewrite the paragraph, breaking up the writing into sentences that are shorter and easier to understand.

There are many birds, such as the red-tailed hawk and the peregrine falcon, that can move faster than a cheetah, which is a member of the cat family that includes lions, tigers, and panthers, and is the fastest of all land animals. Cheetahs have beautiful spotted fur that helps them blend with their surroundings as they hunt, and when they're hunting they can reach speeds of up to 70 miles per hour, which is even faster than a lion!

Score
_____/6 multiple-choice
_____/4 writing

**DONE!**

# Reading Comprehension Test

Unit 7, Week 3

**Directions:** Read the story. Then answer the questions about the story.

## *The Rocket*

Mrs. Vander taught history at Croft Middle School. She did more than just recite dates and give tests. She told stories that brought history to life. The lesson about the first landing on the moon by the Apollo 11 astronauts Buzz Aldrin and Neil Armstrong was especially interesting. Mrs. Vander ended class with her own memory of that event.

“As you now know,” Mrs. Vander began, “the first moon landing was on July 20, 1969. In my hometown, it was a hot day. That night, the adults gathered around the television to watch the landing. My older brother Thad and I went out to the backyard. People sometimes said Thad was an accident waiting to happen. So it probably wasn’t a good idea that Thad had built a rocket in honor of the event.”

Mrs. Vander’s students leaned forward, listening to every word. They were already drawn into the story.

“Thad proudly showed me his rocket. Then he lit the fuse and the two of us ran off into the bushes. We stood there waiting, but nothing happened. Thad was just about to see what might have gone wrong when we heard our names being called. We ran inside to watch the moon landing. As we stood before the television screen, we saw a flash of light outside. Then we heard the scream of a rocket. Thad’s rocket had blasted off after all!”

Mrs. Vander paused for extra drama. Her students sat on the edge of their seats. They were soaking up her every word.

GO ON

**Reading Comprehension Test****Unit 7, Week 3**

“My brother looked at me and grinned. I wasn’t sure which event he was happier about, the moon landing or the launch of his homemade rocket. As it turned out, only pieces of Thad’s rocket were left. Still, there was so much to celebrate that night. Nothing could dim our excitement.”

As if on cue, the bell rang. Mrs. Vander’s students gathered their things. They left for their next class, their minds filled with thoughts of a historic moon landing and a homemade rocket.

- |   |  |
|---|--|
| <p><b>1</b> What is the problem in Mrs. Vander’s story?</p> <p>(A) It was hot on the night of July 20, 1969.</p> <p>(B) Thad’s rocket failed to launch right away.</p> <p>(C) The adults were inside watching television.</p> <p>(D) People said Thad was an accident waiting to happen.</p>    | <p><b>3</b> Like Mrs. Vander’s students, when most people hear a good story, they —</p> <p>(A) study history.</p> <p>(B) pay attention.</p> <p>(C) share memories.</p> <p>(D) want to celebrate.</p>   |
| <p><b>2</b> What is the turning point in the story?</p> <p>(A) Thad lit the fuse of his rocket.</p> <p>(B) Thad and his sister hid behind the bushes.</p> <p>(C) Thad wanted to see what was wrong with his rocket.</p> <p>(D) Thad and his sister saw a flash and heard the rocket scream.</p> | <p><b>4</b> People said Thad was an accident waiting to happen, and he had problems with his rocket. This suggests that —</p> <p>(A) things often go wrong for Thad.</p> <p>(B) Thad knows many people in his town.</p> <p>(C) the moon landing was really important to Thad.</p> <p>(D) Thad wants to build rockets when he grows up.</p> |

Score

\_\_\_\_\_/4

**DONE!**

# Vocabulary Test

Unit 7, Week 3

Directions: Choose the answer that completes the sentence correctly.

COPY READY

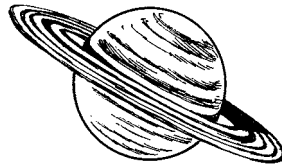
1 This is an \_\_\_\_\_.

- (A) element
- (B) astronaut
- (C) experiment
- (D) archaeologist



2 This is a \_\_\_\_\_.

- (A) craft
- (B) planet
- (C) border
- (D) compass



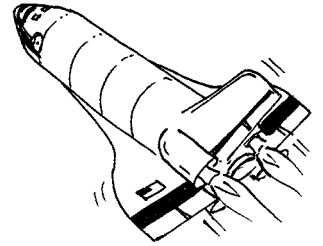
3 This globe shows the \_\_\_\_\_ of Earth.

- (A) competition
- (B) discovery
- (C) rotation
- (D) ability



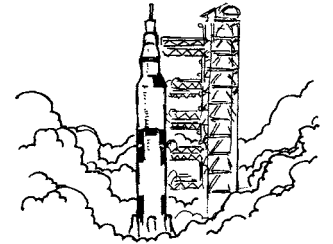
4 The space shuttle \_\_\_\_\_, or moves around, the earth.

- (A) orbits
- (B) trades
- (C) contains
- (D) modifies



5 The rocket \_\_\_\_\_ into space.

- (A) launches
- (B) imagines
- (C) performs
- (D) investigates



GO ON

# Vocabulary Test

Unit 7, Week 3

Directions: Choose the answer that completes the sentence correctly.

6 To \_\_\_\_\_ something is to stop it after a set amount of time.

- (A) locate
- (B) examine
- (C) interpret
- (D) limit

7 Something that never changes is \_\_\_\_\_.

- (A) constant
- (B) coastal
- (C) humid
- (D) native

8 \_\_\_\_\_ is the use of science to solve problems.

- (A) Pottery
- (B) Exercise
- (C) Height
- (D) Technology

9 The \_\_\_\_\_ of an object is the most it can hold.

- (A) capacity
- (B) migration
- (C) conservation
- (D) hemisphere

10 \_\_\_\_\_ is a slowing force.

- (A) Population
- (B) Navigation
- (C) Resistance
- (D) Language

COPY READY

Score
_____/10

DONE!



# Writing, Revising, and Editing Test

Directions: Read the paragraphs. Then answer the questions.

When I was a little boy, my grandmother and I gazed at the stars. We lived in a small country town   1   the sky was nice and dark. "What's the name of that big red one, Grandma?" I would ask. I didn't know the reason   2   she always knew, but she did!

"That's Antares," she might say.

Before Grandma died, she took me to the same observatory   3   she learned about the night sky. Now, at night   4   it is clear, I look up at the stars and think of Grandma.

1 Choose the answer that goes in Blank 1.

- (A) why
- (B) when
- (C) where

2 Choose the answer that goes in Blank 2.

- (A) why
- (B) when
- (C) where

3 Choose the answer that goes in Blank 3.

- (A) why
- (B) when
- (C) where

4 Choose the answer that goes in Blank 4.

- (A) why
- (B) when
- (C) where

GO ON 

## Writing, Revising, and Editing Test

Unit 7, Week 3

- 5 The following story is missing its concluding sentence. Read the story. Then write a concluding sentence that ties up all the “loose ends” and tells the reader how the problem was solved.

Brianna felt ready. She had done her stretches. She had done her warm-up runs in her “practice” shoes. Now the start of the race was only a few minutes away, and it was time to put on her race shoes, the running shoes she wore only for actual races. Brianna opened her track bag and couldn’t believe what she saw. In her hurry to get out of the house, she had grabbed her sister’s running shoes instead! She started to panic, when she looked up and saw her mother getting out of the car in the parking lot. \_\_\_\_\_

COPY READY

Score
_____/4 multiple-choice
_____/4 writing

DONE!

# Reading Comprehension Test

**Directions:** Read the letter and the handout. Then answer the questions about them.

Dear Uncle Bill,

The Space Museum was amazing! You would have loved it because there were some great rocket exhibits. At one point, we went into a giant room and watched a movie that showed Earth from orbit. It made me feel like I was in space. After that, an astronaut named Danny Olivas spoke to us. Here's a handout about him that I thought you might like to read.

Your nephew,

Patrick

COPY READY

## Danny Olivas: The Making of an Astronaut



The path to becoming an astronaut is different for everyone, but one

thing that all of the paths have in common is that they are not easy. For example, Danny Olivas applied to be an astronaut nine times before he was accepted.

Being turned down that many times was disappointing. However, that didn't stop Danny, who had wanted to be an astronaut for a long time.

When Danny was seven, his father took him to a space museum where he showed Danny how one of the rocket engines was made. Danny's dad knew about the engines because he helped make them!

The rocket was big and had many different parts. Danny could tell that a lot of people had worked on the rocket together. He was excited by the idea of being part of such a big team and wondered if he was smart enough to be an astronaut. He was good at fixing things, so maybe he could get a job fixing things for the astronauts.

Danny took classes and did experiments. He went to college and earned a special degree. Still, he was turned down again and again. Each time this happened, Danny kept his chin up and just kept working at it. He took it one step at a time. "You say, OK, what do I need to do next?" explains Danny. "You eat an elephant one bite at a time."

Today, Danny has been aboard a rocket-launched shuttle and walked in space. He does fix things for astronauts—and he does so in space! He's an astronaut himself. Clearly, for Danny, the reward was worth the effort.

**GO ON**

## Reading Comprehension Test

**Unit Test**

- 1 Along with his letter, Patrick sent his uncle a handout about the space museum. Which of these is a secondhand account?
- (A) the handout
  - (B) the letter
- 2 Which sentence is a firsthand account?
- (A) *Still, he was turned down again and again.*
  - (B) *Clearly, for Danny, the reward was worth the effort.*
  - (C) *"You say, OK, what do I need to do next?" explains Danny.*
  - (D) *Danny could tell that a lot of people had worked on the rocket together.*
- 3 Which of these expresses a **fact**?
- (A) You should have been there.
  - (B) The Space Museum was amazing!
  - (C) There were some great rocket exhibits.
  - (D) An astronaut named Danny Olivas spoke to us.
- 4 Which of these is an **opinion**?
- (A) The people who fix things in space are astronauts.
  - (B) Danny went to college and earned a special degree.
  - (C) Being turned down that many times was disappointing.
  - (D) When Danny was seven, his father took him to a space museum.
- 5 Which fact best supports the opinion that the path to becoming an astronaut is not easy?
- (A) Danny had wanted to be an astronaut for a long time.
  - (B) Danny was excited by the idea of being part of such a big team.
  - (C) Danny applied to be an astronaut nine times before he was accepted.
  - (D) Danny knew that many people had worked on the rocket together.
- 6 Which of these supports the opinion that for Danny "the reward was worth the effort"?
- (A) Danny took classes and did experiments.
  - (B) Danny knew that he was good at fixing things.
  - (C) Danny kept his chin up each time he was turned down.
  - (D) Danny went on a space walk and rode a shuttle into space.

**GO ON** 

## Reading Comprehension Test

**Directions:** Read the passage. Then answer the questions about the passage.

### Becoming an Astronaut

Many people want to become astronauts, but few actually make it into space. The way that astronauts are chosen and trained has changed over the years. Still, it is one of the most difficult jobs in the world to get.

#### Measuring Up

The first astronauts from the United States were male test pilots who flew for the military. They had to be between the ages of 25 and 40 and shorter than 5 feet 11 inches tall. Height was important because they had to fit inside the spacecraft.

#### Taking Tests

Early astronauts had to complete many difficult physical tests. These tests were done because no one knew how leaving Earth would affect the human body. Astronauts had to be very healthy and strong to pass the tests. In one test, the men flew in an airplane that went up and down like a roller coaster. The men inside experienced weightlessness, and some of them felt very sick.



**Astronauts training for space**

#### Breaking with the Past

Today, the rules for choosing astronauts have changed. Astronauts no longer have to be in the military. They do not have to be young either. In fact, the oldest astronaut to date was 77 years old! Astronauts also no longer have to be men. Women are now able to go into space. Astronauts can be taller, too, up to 6 feet 3 inches.

Space suits now help keep astronauts from feeling sick during takeoffs and landings. However, astronauts still have to be healthy and strong. Today, more people have the chance to become astronauts, but the training is still difficult.

**GO ON** 

## Reading Comprehension Test

**Unit Test**

- 7 How are today's astronauts like the first astronauts? They have to be —
- (A) in the military.
  - (B) male test pilots.
  - (C) healthy and strong.
  - (D) younger than 40 years old.
- 8 Today's astronauts are different from the first astronauts because they —
- (A) have very difficult jobs.
  - (B) can be men or women.
  - (C) are trained and tested.
  - (D) fly smaller spacecraft.
- 9 To be an astronaut is one of the most difficult jobs in the world. You can conclude that most astronauts —
- (A) think the tests are fun.
  - (B) want to get a new job.
  - (C) do not enjoy space travel.
  - (D) are not afraid of hard work.
- 10 The first astronauts had to be shorter than 5 feet 11 inches to fit in the spacecraft. Now, astronauts can be much taller. What conclusion can you make from this change?
- (A) Spacecraft are bigger now.
  - (B) Space suits work better now.
  - (C) Tall people want to be astronauts.
  - (D) Spacecraft can be flown by women.
- 11 In the part of the passage under "Taking Tests," what is the most important idea?
- (A) Early astronauts had to complete many difficult physical tests.
  - (B) Some of the astronauts got sick when weightless.
  - (C) In one test, the men flew in an airplane that went up and down.
  - (D) When the airplane went up and down, it was like a roller coaster.
- 12 The heading "Breaking with the Past" helps the reader understand that this part is about —
- (A) new equipment.
  - (B) kinds of training.
  - (C) changes to rules.
  - (D) health and fitness.

**GO ON** 

## Reading Comprehension Test

Directions: Read the passage. Then answer the questions about the passage.



COPY READY

Ten-year-old Tina had never been in an airplane. Still, she wanted to be an astronaut and explore outer space. She had just finished reading a book about the first astronauts to land on the moon. Now if she could only figure out how to get into outer space!

The next day when Tina visited Grandpa, she told him that she was going to be an astronaut.

"That's great news!" said Grandpa with a wink. "When is your first trip into space?"

"I'm serious," said Tina. "How old do you have to be to be an astronaut?"

Grandpa was pretty sure that astronauts had to be older than 10. The two of them looked on the computer. They learned that the youngest astronaut was a woman named Sally Ride. She was 32 years old when she became the first American woman in space.

"I have to wait until I'm 32?" cried Tina. "I want to explore space *now*!"

"Well, you'll just have to be patient," said Grandpa. "Until then, I know a way that you can at least see outer space."

GO ON 

## Reading Comprehension Test

**Unit Test**

Grandpa looked into his closet and carefully pulled out a long, heavy box. Inside was a shiny black telescope!

“I got this when I was your age,” said Grandpa chuckling. “Now I think you should have it.”

That night, Tina and Grandpa explored space together without ever leaving Earth. To see all those stars through the telescope made Tina certain. She was definitely going to become an astronaut when she grew up.

- 13 What problem does Tina have?
- (A) She wants to visit her grandpa.
  - (B) She is too young to fly into space.
  - (C) She has never been in an airplane.
  - (D) She finishes a book about astronauts.
- 14 The turning point in the passage is when —
- (A) Tina wants to explore space now.
  - (B) Grandpa gives Tina his telescope.
  - (C) Tina and Grandpa read about Sally Ride.
  - (D) Tina tells Grandpa her plan to be an astronaut.
- 15 Both “Seeing Stars” and the handout about Danny Olivas are about people who —
- (A) are interested in rocket engines.
  - (B) read books about exploring space.
  - (C) learn about space from their grandfather.
  - (D) want to become astronauts when they grow up.
- 16 Both Tina and Danny Olivas —
- (A) thought about space as children.
  - (B) have gone on a space walk.
  - (C) were good at fixing things.
  - (D) took lots of tests.

**GO ON** 



## Reading Comprehension Test

Unit Test

Directions: Read the passage. Then answer the questions about the passage.

### Camping with Aunt Sheila

Aunt Sheila loves to have fun, so I was happy when she invited me to go camping. After she picked me up in her car, we waved goodbye to my parents and drove to the hiking trail.

Putting on my backpack, I noticed that my aunt's pack looked lighter than mine. It wasn't until we set up camp that I learned why. She had left the tent at home! "Oh, well," Aunt Sheila said. "This way we can look at the stars."

We built a campfire and cooked our dinner. Then we snuggled into our sleeping bags and stared up at the sky. "There must be a million stars up there," Aunt Sheila sighed.

"My science teacher says we can see about 2,000 stars on a clear night," I said. Just then, a light streaked across the darkness.

Aunt Sheila wondered about how far away the shooting star was. I told her that shooting stars are closer to us than the moon. I explained that they are usually dust particles falling into Earth's sky. We talked some more and then fell asleep.

When my alarm went off, it was still dark. "Aunt Sheila," I said. "We'd better get moving or we'll miss sunrise." She just groaned, rolled over, and started to snore. I tried all kinds of tricks, but nothing worked. Finally I shouted, "Hey, go away, Mr. Bear!" and Aunt Sheila's head popped out of her sleeping bag.

We made it to the lookout just as the sun's rosy face peeked over a hill. Aunt Sheila pointed to a bright light on the horizon and said, "Look at that huge star!"

GO ON 

## Reading Comprehension Test

“It’s called the Morning Star,” I said, “but it’s really the planet Venus.”

Aunt Sheila gave me a hug. “We’ll have to go camping again soon,” she said. “I learn so much!”

- 17** Based on her actions, Aunt Sheila can be described as —
- (A) grumpy.
  - (B) selfish.
  - (C) serious.
  - (D) forgetful.
- 18** Based on the passage, you can tell that the narrator —
- (A) is afraid of wildlife.
  - (B) brings too much stuff.
  - (C) knows a lot about the stars.
  - (D) plans to be a science teacher.
- 19** “Camping with Aunt Sheila” is told from —
- (A) the narrator’s point of view.
  - (B) Aunt Sheila’s point of view.
- 20** Which passage is made up by the author?
- (A) “Camping with Aunt Sheila”
  - (B) “Danny Olivas: The Making of an Astronaut”
- 21** Which of these passages is told in third-person?
- (A) “Seeing Stars”
  - (B) “Camping with Aunt Sheila”

- 22** Imagine you are an astronaut traveling through space. Write a short firsthand account of two or three sentences telling what you see or feel.
- Now write a short secondhand account of traveling through space.

Score
_____/24

DONE!

# Vocabulary Test

Unit Test

Directions: Read the question. Use the chart to choose the best answer.

Root	Origin	Meaning	Example
<i>ped</i>	Greek	foot	pedal
<i>dict</i>	Latin	speak	dictionary
<i>bio</i>	Greek	life	biography
<i>dec</i>	Latin	ten	decimal

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1 What does diction most likely mean?

She was only five years old but had good diction.

- (A) height
- (B) speech
- (C) hearing
- (D) manners

2 What does pedestrians most likely mean?

The driver had to watch for pedestrians on the road.

- (A) pet owners
- (B) bad weather
- (C) slippery roads
- (D) people walking

3 What does biology most likely mean?

Most doctors learn a lot about biology.

- (A) research
- (B) their patients
- (C) the study of life
- (D) medical instruments

4 What does decade most likely mean?

It took a decade for the tree to grow as tall as the house.

- (A) ten years
- (B) medicine
- (C) long time
- (D) great care



# Vocabulary Test

Unit Test

Directions: Read the questions. Use the dictionary entries to choose the best answer.

**hand (hand)** *noun* **1** a part of the body **2** a pointer that moves to different numbers on a clock or watch **3** a player's cards *verb* **4** to give something to someone

**grade (grād)** *noun* **1** year in school **2** a letter or number that shows how well you have done some work **3** the slope of the ground *verb* **4** to give a letter or number to show how well someone worked

5 Which meaning of hand is used in this sentence?

Joe will hand you the ball once he has finished playing with it.

- (A) meaning 1
- (B) meaning 2
- (C) meaning 3
- (D) meaning 4

6 Which meaning of grade is used in this sentence?

I earned a good grade on my math test.

- (A) meaning 1
- (B) meaning 2
- (C) meaning 3
- (D) meaning 4

GO ON 

# Vocabulary Test

Unit Test

**Directions:** Choose the word that completes the sentence correctly.

COPY READY

7 The airplane will \_\_\_\_\_ as it takes off.

- (A) orbit
- (B) limit
- (C) interpret
- (D) accelerate

8 Let's \_\_\_\_\_ the couch to see if it will fit.

- (A) launch
- (B) balance
- (C) measure
- (D) preserve

9 Earth takes 365 days to \_\_\_\_\_ the sun.

- (A) orbit
- (B) solve
- (C) launch
- (D) examine

10 I watch the night sky an \_\_\_\_\_ of three times a week.

- (A) artifact
- (B) average
- (C) experiment
- (D) exploration

11 Please \_\_\_\_\_ the amount of time you watch television.

- (A) limit
- (B) solve
- (C) invade
- (D) introduce

12 It is a very long \_\_\_\_\_ from the moon to Earth.

- (A) speed
- (B) capacity
- (C) distance
- (D) compass

Score
_____/12

DONE!

# Writing, Revising, and Editing Test

Directions: Read the paragraph. Then answer the questions.

I just finished reading a book about a circus chimp named Bob who usually acts silly. Then he 1 got serious when he went on a dangerous adventure. The chimp had to fly a rocket ship 2 space. He brought two other chimps 3 him. They traveled to a faraway planet 4 they ended up saving the inhabitants. Then they returned to Earth. It was an entertaining book!

1 Choose the answer that goes in Blank 1.

- (A) loud
- (B) except
- (C) becomes
- (D) suddenly

2 Choose the answer that goes in Blank 2.

- (A) on
- (B) with
- (C) into
- (D) after

3 Choose the answer that goes in Blank 3.

- (A) of
- (B) with
- (C) during
- (D) through

4 Choose the answer that goes in Blank 4.

- (A) why
- (B) when
- (C) where
- (D) during

GO ON 

## Writing, Revising, and Editing Test

Directions: Read the paragraph. Then answer the questions.

(1) Many North Carolina license plates say "First in Flight." (2) That's because the brothers Orville and Wilbur Wright first flew an airplane successful there. (3) It took off during the town of Kitty Hawk, near the coast. (4) The wind frequent blows briskly near the coast. (5) The Wright brothers knew that a plane takes off easilier into a breeze. (6) The brothers had worked very hard to design and build their airplane. (7) On December 17, 1903, they were ready. (8) With a field, they started the engine that they had built themselves. (9) The plane rose briefly into the air. (10) It flew only about 40 yards that day, but it was the start of the airplane age!

5 What is the correct way to write sentence 2?

- (A) That's because the Brothers Orville and Wilbur Wright first flew an airplane successful there.
- (B) That's because the brothers Orville and Wilbur Wright first flied an airplane successful there.
- (C) That's because the brothers Orville and Wilbur Wright first flew an airplane successfully there.
- (D) Correct as is

6 What is the correct way to write sentence 3?

- (A) It took off from the town of Kitty Hawk, near the coast.
- (B) It took off during the town of Kitty Hawk, with the coast.
- (C) It took off during the town of kitty hawk, near the coast.
- (D) Correct as is

GO ON 

## Writing, Revising, and Editing Test

Unit Test

7 What is the correct way to write sentence 4?

- (A) The wind frequent blow briskly near the coast.
- (B) The wind frequent blows brisk near the coast.
- (C) The wind frequently blows briskly near the coast.
- (D) Correct as is

8 What is the correct way to write sentence 5?

- (A) The Wright brothers knew that a plane takes off easilier at a breeze.
- (B) The Wright brothers knew that a plane takes off more easily into a breeze.
- (C) The Wright brothers who knew that a plane takes off easilier into a breeze.
- (D) Correct as is

9 What is the correct way to write sentence 8?

- (A) In a field, they started the engine that they had built themselves.
- (B) With a field, they started the engine that they had built himself.
- (C) With a field, they started the engine when they had built themselves.
- (D) Correct as is

10 What is the correct way to write sentence 9?

- (A) The plane rose briefly to the air.
- (B) The plane rised briefly into the air.
- (C) The plane rose brief into the air.
- (D) Correct as is

COPY READY

GO ON 








## Writing, Revising, and Editing Test

**11** Read the paragraph. There are six mistakes in grammar and usage, punctuation, or capitalization. Use the Editing and Proofreading Marks to correct each mistake.

**(1)** The whole world celebrated the day where Apollo 11 landed on the moon. **(2)** NASA sent several other missions at the moon after Apollo 11. **(3)** Most of them worked out good. **(4)** In 1970, one mission, Apollo 13, was almost a disaster. **(5)** It's funny, because the mission started out smoothlier than usual. **(6)** Then there was an explosion. **(7)** At the time, the astronauts didn't know the reason where it had happened. **(8)** They lost almost all their power. **(9)** They were 200,000 miles away and weren't sure if they could get back to Earth. **(10)** Fortunately, the astronauts were able to return safely. **(11)** In 1995, a movie was made around the troubles of that mission and its brave astronauts. **(12)** It's called *Apollo 13*.

### Editing and Proofreading Marks

	Add.
	Take out.
	Move to here.
	Add comma.
	Add period.

**12** Write a personal narrative about an experience or something you read that changed the way you think about outer space. Give details to help readers understand your experience and why it was important to you. Your narrative should have at least three paragraphs.

Score	
_____/10	multiple-choice
_____/6	editing task
_____/4	weekly writing skill
_____/24	writing traits

**DONE!**

Name \_\_\_\_\_ Date \_\_\_\_\_

# Weekly and Unit Assessments

Unit 7

Enter the scores for the Oral Reading Assessment administered in this unit.

Oral Reading Assessment	wcpm	Oral Reading Fluency Rubrics				Retelling
		Automaticity	Phrasing	Intonation	Expression	
		_____/4	_____/4	_____/4	_____/4	_____/4

Enter the scores from the Spelling Pre-Test and the End-of-Week Test in the table. Calculate the percent for each End-of-Week Test or use the conversion charts on page A7.46.

Spelling Tests	Week 1	Week 2	Week 3	Week 4
Pre-Test CC.4.L.1.g, L.2, L.2.d	_____/19	_____/19	_____/19	_____/17
End-of-Week Test CC.4.L.1.g, L.2, L.2.d	_____/19 ____%	_____/19 ____%	_____/19 ____%	_____/17 ____%

Circle the item number for each item answered correctly. Assign 1 point for each correct answer. For tests scored with rubrics, enter the student's rubric scores. Calculate the percent of the overall score or use the conversion charts on page A7.46.

Reading Comprehension Tests	Weekly Test Items			Unit Test Items Including Week 4	Totals Across Tests
	Week 1	Week 2	Week 3		
Analyze Informational Texts CC.4.Rinf.5, Rinf.10	1 2			7 8	_____/4
Conclusions CC.4.Rinf.10	3 4			9 10	_____/4
Events, Procedures, Concepts in Informational Text CC.4.Rinf.3, Rinf.1		1 2		11 12	_____/4
Identify Fact and Opinion CC.4.Rinf.1		3 4		3 4	_____/4
Author's Use Reasons and Evidence CC.4.Rinf.8		5 6		5 6	_____/4
Literature Text Structures CC.4.Rlit.10, Rlit.2			1 2	13 14	_____/4
Generalizations CC.4.Rlit.10			3 4	17 18	_____/4
Point of View in Informational Text CC.4.Rinf.6, W.9.b				1 2 22 (____/3)	_____/5
Compare Across Genres CC.4.Rlit.9, Rinf.9				15 16 20	_____/3
Point of View in Literature CC.4.Rlit.6				19 21	_____/2
<b>Total</b>	_____/4 ____%	_____/6 ____%	_____/4 ____%	_____/24 ____%	

Vocabulary Tests	Weekly Test Items			Unit Test Items Including Week 4	Totals Across Tests
	Week 1	Week 2	Week 3		
Math Vocabulary and Science Vocabulary CC.4.L.6, Rinf.4, Rlit.4	1 2 3 4 5		1 2 3 4 5	7 8 9	_____/13
Academic Vocabulary CC.4.L.6, Rinf.4, Rlit.4	6 7 8 9 10		6 7 8 9 10	10 11 12	_____/13
Multiple-Meaning Words CC.4.L.4, Rinf.4		1 2 3 4		5 6	_____/6
Word Parts CC.4.L.4, Rfou.3				1 2 3 4	_____/4
<b>Total</b>	_____/10 ____%	_____/4 ____%	_____/10 ____%	_____/12 ____%	

Name \_\_\_\_\_ Date \_\_\_\_\_

# Weekly and Unit Assessments

Unit 7

COPY READY

Writing, Revising, and Editing Tests		Weekly Test Items			Unit Test Items Including Week 4	Totals Across Tests
		Week 1	Week 2	Week 3		
Revising and Editing	Adverbs CC.4.L.1, L.3, L.1.a	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4	1 4 5 7 8 10 11a 11c 11d 11e	_____/26
	Prepositions CC.4.L.1, L.3				2 3 6 9 11b 11f	_____/6
<b>Subtotal</b>		_____/6	_____/6	_____/4	_____/16	
Weekly Writing Skills (Writing Prompts)	Identifying Big Concepts, Integrate Information from Multiple Sources CC.4.W.8, Rinf.9, W.2	_____/4				_____/4
	Break Up Long Sentences CC.4.W.1.f		_____/4			_____/4
	Use Concluding Sentences CC.4.W.3.e			_____/4		_____/4
	Maintain Point of View CC.4.W.3				_____/4	_____/4
<b>Subtotal</b>		_____/4	_____/4	_____/4	_____/4	
<b>Total</b>		_____/10 ____%	_____/10 ____%	_____/8 ____%	_____/20 ____%	

Unit Test Writing Prompt—Traits	Ideas	Organization	Voice	Word Choice	Fluency	Conventions	Total
CC.4.W.3, W.5, W.10, L.1, L.3, W.8, Rinf.9, W.2, W.1.f, W.3.e	_____/4	_____/4	_____/4	_____/4	_____/4	_____/4	_____/24

Fill in the strategy or the strategies used each week and enter the score.

Reading Strategy Assessments	Week 1	Week 2	Week 3	Week 4
	_____/4	_____/4	_____/4	_____/4
	_____/4	_____/4	_____/4	_____/4
	_____/4	_____/4	_____/4	_____/4
	_____/4	_____/4	_____/4	_____/4

Enter the score for each Weekly Project.

Weekly Projects	Week 1	Week 2	Week 3	Week 4
Writing or Research Project	_____/24	_____/24	_____/24	_____/24

# Weekly and Unit Assessments

Unit 7

The Class Profile will help you group students for review and reteaching. Use the Student Profiles to complete this summary information for your class. Write a minus sign (-) if the student would benefit from review and reteaching.

Student Name

		Student Name											
Reading Comprehension	Analyze Informational Texts CC.4.Rinf.5, Rinf.10												
	Conclusions CC.4.Rinf.10												
	Events, Procedures, Concepts in Informational Text CC.4.Rinf.3 Rinf.1												
	Identify Fact and Opinion CC.4.Rinf.1												
	Author's Use of Reasons and Evidence CC.4.Rinf.8												
	Literature Text Structures CC.4.Rlit.10, Rlit.2												
	Generalizations CC.4.Rlit.10												
	Point of View in Informational Text CC.4.Rinf.6, W.9.b												
	Compare Across Genres CC.4.Rlit.9, Rinf.9												
	Point of View in Literature CC.4.Rlit.6												
Writing, Revising, and Editing	Adverbs CC.4.L.1, L.3, L.1.a												
	Prepositions CC.4.L.1, L.3												
	Writing in Response to Prompt CC.4.W.3, W.5, W.10, L.1, L.3, W.8, Rinf.9, W.2, W.1, W.3.e												
Vocabulary	Math Vocabulary and Science Vocabulary CC.4.L.6, Rinf.4, Rlit.4												
	Academic Vocabulary CC.4.L.6, Rlit.4, Rinf.4												
	Multiple-Meaning Words CC.4.L.4, Rinf.4												
	Word Parts CC.4.L.4, Rfou.3												

COPY READY

Name \_\_\_\_\_ Date \_\_\_\_\_

# Strengths and Needs Summary

Use this chart to summarize the strengths and needs of individual students. This information will be helpful during student conferences and for instructional planning.

	Consistent Strengths	Some Successes	Greatest Needs
Reading Comprehension			
Oral Reading			
Vocabulary			
Spelling			
Grammar			
Written Composition			

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# Writing Rubric

Score Point	Ideas	Organization	Voice	Word Choice	Fluency	Conventions	Presentation
4	<ul style="list-style-type: none"> <li>The writing has a clear, focused message that keeps readers interested.</li> <li>Details are accurate and relevant, showing in-depth knowledge of the topic.</li> </ul>	<ul style="list-style-type: none"> <li>The writing has a clear structure throughout that suits the writer's audience and purpose.</li> <li>All content flows smoothly and logically.</li> </ul>	<ul style="list-style-type: none"> <li>The writing sounds genuine and unique.</li> <li>The writer's tone is appropriate to the purpose and audience.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate words were chosen to clearly convey the writer's message.</li> <li>Language used throughout is appropriate for the audience and grabs readers' attention.</li> </ul>	<ul style="list-style-type: none"> <li>All sentences are varied and effective and have appropriate transitions.</li> <li>When read aloud, the writing sounds natural and rhythmic.</li> </ul>	<ul style="list-style-type: none"> <li>The writing has only a few minor errors in spelling, punctuation, capitalization, grammar, usage, and paragraphing.</li> <li>All the sentences are complete.</li> </ul>	<ul style="list-style-type: none"> <li>The text is presented in an orderly way, significantly helping to convey the message.</li> <li>Visuals are appropriate for the purpose and audience, and effectively support meaning.</li> </ul>
3	<ul style="list-style-type: none"> <li>Most of the writing has a clear, focused message that keeps readers interested.</li> <li>Most details are accurate and relevant, showing reasonable knowledge of the topic.</li> </ul>	<ul style="list-style-type: none"> <li>Most of the writing has a clear structure that suits the writer's audience and purpose.</li> <li>Most of the content flows smoothly and logically.</li> </ul>	<ul style="list-style-type: none"> <li>Most of the writing sounds genuine and unique.</li> <li>The writer's tone is mostly appropriate for the purpose and audience.</li> </ul>	<ul style="list-style-type: none"> <li>Many appropriate words were chosen to clearly convey the writer's message.</li> <li>Most language is appropriate for the audience and grabs readers' attention.</li> </ul>	<ul style="list-style-type: none"> <li>Most sentences are varied and effective and have appropriate transitions.</li> <li>When read aloud, most of the writing sounds natural and rhythmic.</li> </ul>	<ul style="list-style-type: none"> <li>The writing has some errors in spelling, punctuation, capitalization, grammar, usage, and paragraphing.</li> <li>Most of the sentences are complete.</li> </ul>	<ul style="list-style-type: none"> <li>Most of the text is presented in an orderly way, generally helping to convey the message.</li> <li>Most visuals are appropriate for the purpose and audience, and effectively support meaning.</li> </ul>
2	<ul style="list-style-type: none"> <li>The writing has a fairly unclear and unfocused message, causing readers some confusion.</li> <li>Some details are relevant and accurate, showing minimum knowledge of the topic.</li> </ul>	<ul style="list-style-type: none"> <li>The writing does not have a structure that suits the writer's audience and purpose.</li> <li>Some content flows smoothly and logically.</li> </ul>	<ul style="list-style-type: none"> <li>Some of the writing sounds genuine and unique.</li> <li>The writer's tone is somewhat inappropriate for the purpose and audience.</li> </ul>	<ul style="list-style-type: none"> <li>Some appropriate words were chosen to clearly convey the writer's message.</li> <li>Some language is appropriate for the audience and grabs readers' attention.</li> </ul>	<ul style="list-style-type: none"> <li>Some sentences are varied and effective and have appropriate transitions.</li> <li>When read aloud, some of the writing sounds natural and rhythmic.</li> </ul>	<ul style="list-style-type: none"> <li>The writing has several errors in spelling, punctuation, capitalization, grammar, usage, and paragraphing.</li> <li>Some of the sentences are complete.</li> </ul>	<ul style="list-style-type: none"> <li>Some of the text is presented in an orderly way, but it is a little difficult to track and comprehend the message.</li> <li>Some visuals are appropriate for the purpose and audience and support meaning.</li> </ul>
1	<ul style="list-style-type: none"> <li>The writing does not have a clear, focused message, causing readers confusion.</li> <li>Many details are irrelevant and inaccurate, indicating a lack of knowledge of the topic.</li> </ul>	<ul style="list-style-type: none"> <li>The writing does not have a structure.</li> <li>The content does not flow smoothly or logically.</li> </ul>	<ul style="list-style-type: none"> <li>The writing does not sound genuine or unique.</li> <li>The writer's tone is not appropriate for the purpose or audience.</li> </ul>	<ul style="list-style-type: none"> <li>Few appropriate words were chosen to clearly convey the writer's message.</li> <li>Language is dull, vague, and inappropriate for the audience, losing the readers' attention.</li> </ul>	<ul style="list-style-type: none"> <li>Few or none of the sentences are varied or effective or have appropriate transitions.</li> <li>When read aloud, the writing sounds unnatural.</li> </ul>	<ul style="list-style-type: none"> <li>The writing has many errors in spelling, punctuation, capitalization, grammar, usage, and paragraphing.</li> <li>Few sentences are complete.</li> </ul>	<ul style="list-style-type: none"> <li>The text is not presented in an orderly way, making it very difficult to track and comprehend the message.</li> <li>None of the visuals are appropriate for the purpose or audience, and do not support meaning.</li> </ul>

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Grade 4 Assessment

**A7.41**

Unit 7 | Moving Through Space

**COPY READY**

# Research Rubric

Unit 7, Week 1

COPY READY

Scale	Content	Presentation
4	<ul style="list-style-type: none"><li>• Three or more reference sources were used, and main ideas and details are organized well to fully develop the topic.</li></ul>	<ul style="list-style-type: none"><li>• Speaker speaks clearly and at an appropriate rate and volume.</li><li>• Digital images and audiovisuals are used at the appropriate times and places.</li></ul>
3	<ul style="list-style-type: none"><li>• Two reference sources were used.</li><li>• Some assistance was required for student to articulate and organize main ideas and details in order to develop the topic in a satisfactory way.</li></ul>	<ul style="list-style-type: none"><li>• Speaker speaks clearly and at an appropriate rate and volume most of the time.</li><li>• Digital images and audiovisuals are used, but not always at the best time or place.</li></ul>
2	<ul style="list-style-type: none"><li>• Only one reference source was used, and student required assistance to articulate and organize main ideas and details.</li><li>• Topic was not developed fully.</li></ul>	<ul style="list-style-type: none"><li>• Speaker did not always speak clearly and used an appropriate volume and rate only some of the time.</li><li>• Only one digital image or audiovisual was used.</li></ul>
1	<ul style="list-style-type: none"><li>• No reference sources were used, and main ideas and details were missing or hard to follow.</li><li>• Topic was not clear.</li></ul>	<ul style="list-style-type: none"><li>• Speaker was difficult to understand and hear.</li><li>• No digital images or audiovisuals were included in the presentation.</li></ul>

# Unit Self-Assessment

Unit 7

**Directions:** Mark a ✓ in one box for each skill.



I can...	I can do this and can tell others how to do it.	I can do this by myself.	I can do this if I have help or look at an example.
use context clues to figure out the meaning of a word.			
use roots to understand new words.			
make generalizations and draw conclusions when I read.			
compare and contrast information.			
tell the difference between facts and opinions.			
understand scientific texts.			
identify reasons and evidence.			
identify the different parts of plot.			
recognize the point of view when I read and whether it's a firsthand or secondhand account.			
tell the difference between a made-up story and a biography.			
use adverbs correctly.			
use prepositions correctly.			

Of all the texts you read for Moving Through Space, which one was your favorite? \_\_\_\_\_

\_\_\_\_\_

What did you like about it? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Answer Keys and Rubrics

COPY READY

Reading Comprehension			
Week 1			
Item	Key	Item Descriptor	CCSS Code
1	A	Comparison	CC.4.Rinf.5, Rinf.10
2	C	Comparison	CC.4.Rinf.5, Rinf.10
3	B	Conclusion	CC.4.Rinf.10
4	D	Conclusion	CC.4.Rinf.10
Week 2			
Item	Key	Item Descriptor	CCSS Code
1	D	Concepts	CC.4.Rinf.3, Rinf.1
2	C	Concepts	CC.4.Rinf.3, Rinf.1
3	C	Identify Fact and Opinion	CC.4.Rinf.1
4	A	Identify Fact and Opinion	CC.4.Rinf.1
5	C	Reasons and Evidence	CC.4.Rinf.8
6	D	Reasons and Evidence	CC.4.Rinf.8
Week 3			
Item	Key	Item Descriptor	CCSS Code
1	B	Plot Structure	CC.4.Rlit.10, Rlit.2
2	D	Plot Structure	CC.4.Rlit.10, Rlit.2
3	B	Generalizations	CC.4.Rlit.10
4	A	Generalizations	CC.4.Rlit.10
Unit Test (including Week 4)			
Item	Key	Item Descriptor	CCSS Code
1	A	Compare and Contrast Accounts	CC.4.Rinf.6
2	C	Compare and Contrast Accounts	CC.4.Rinf.6
3	D	Identify Fact and Opinion	CC.4.Rinf.1
4	C	Identify Fact and Opinion	CC.4.Rinf.1
5	C	Author's Use Reasons and Evidence	CC.4.Rinf.8
6	D	Author's Use Reasons and Evidence	CC.4.Rinf.8
7	C	Comparison	CC.4.Rinf.5, Rinf.10
8	B	Comparison	CC.4.Rinf.5, Rinf.10
9	D	Conclusions	CC.4.Rinf.10
10	A	Conclusions	CC.4.Rinf.10
11	A	Concepts	CC.4.Rinf.3, Rinf.1
12	C	Concepts	CC.4.Rinf.3, Rinf.1
13	B	Plot Structure	CC.4.Rlit.10, Rlit.2
14	B	Plot Structure	CC.4.Rlit.10, Rlit.2
15	D	Compare Events Across Genres	CC.4.Rlit.9, Rinf.9
16	A	Compare Events Across Genres	CC.4.Rlit.9, Rinf.9
17	D	Generalizations	CC.4.Rlit.10
18	C	Generalizations	CC.4.Rlit.10
19	A	Compare and Contrast Points of View	CC.4.Rlit.6
20	A	Compare Events Across Genres	CC.4.Rlit.9, Rinf.9
21	A	Compare and Contrast Points of View	CC.4.Rlit.6
22	Skill Rubric	Compare and Contrast Accounts	CC.4.Rinf.6, W.9.b

Vocabulary					
Week 1			Week 3		
CC. 4.L.6, Rlit.4, Rinf.4,			CC. 4.L.6, Rlit.4, Rinf.4		
Item	Key	Word	Item	Key	Word
1	B	heights	1	B	astronaut
2	C	accelerates	2	B	planet
3	B	measure	3	C	rotation
4	A	motion	4	A	orbits
5	C	speed	5	A	launches
6	D	solve	6	D	limit
7	C	scale	7	A	constant
8	A	Distance	8	D	Technology
9	D	rate	9	A	capacity
10	B	average	10	C	Resistance

Week 2			
Item	Key	Item Descriptor	CCSS Code
1	D	Multiple-Meaning Words	CC.4.L.4, Rinf.4
2	A	Multiple-Meaning Words	CC.4.L.4, Rinf.4
3	D	Multiple-Meaning Words	CC.4.L.4, Rinf.4
4	C	Multiple-Meaning Words	CC.4.L.4, Rinf.4
Unit Test (including Week 4)			
Item	Key	Item Descriptor	CCSS Code
1	B	Word Parts	CC.4.L.4, Rfou.3
2	D	Word Parts	CC.4.L.4, Rfou.3
3	C	Word Parts	CC.4.L.4, Rfou.3
4	A	Word Parts	CC.4.L.4, Rfou.3
5	D	Multiple-Meaning Words	CC.4.L.4, Rinf.4
6	B	Multiple-Meaning Words	CC.4.L.4, Rinf.4
7	D	Math Vocabulary	CC.4.L.6, Rlit.4, Rinf.4
8	C	Math Vocabulary	CC.4.L.6, Rlit.4, Rinf.4
9	A	Science Vocabulary	CC.4.L.6, Rlit.4, Rinf.4
10	B	Academic Vocabulary	CC.4.L.6, Rlit.4, Rinf.4
11	A	Academic Vocabulary	CC.4.L.6, Rlit.4, Rinf.4
12	C	Academic Vocabulary	CC.4.L.6, Rlit.4, Rinf.4

# Answer Keys and Rubrics

Unit 7

Writing, Revising, and Editing							
Week 1				Unit Test (including Week 4)			
Item	Key	Item Descriptor	CCSS Code	Item	Key	Item Descriptor	CCSS Code
1	D	Descriptive Adverbs	CC.4.L.1, L.3	1	D	Descriptive Adverbs	CC.4.L.1, L.3
2	C	Descriptive Adverbs	CC.4.L.1, L.3	2	C	Prepositions	CC.4.L.1, L.3
3	C	Descriptive Adverbs	CC.4.L.1, L.3	3	B	Prepositions	CC.4.L.1, L.3
4	A	Descriptive Adverbs	CC.4.L.1, L.3	4	C	Relative Adverbs	CC.4.L.1.a, L.3
5	B	Adverbs vs. Adjectives	CC.4.L.1, L.3	5	C	Editing: Descriptive Adverbs	CC.4.L.1, L.3
6	D	Adverbs vs. Adjectives	CC.4.L.1, L.3	6	A	Editing: Prepositions	CC.4.L.1, L.3
Prompt (7)	Skill Rubric	Identify Big Concepts, Integrate Information from Multiple Sources	CC.4.W.8, Rinf.9, W.2	7	C	Editing: Adverbs vs. Adjectives	CC.4.L.1, L.3
Week 2				8	B	Editing: Comparison Adverbs	CC.4.L.1.b, L.3
Item	Key	Item Descriptor	CCSS Code	9	A	Editing: Prepositions	CC.4.L.1, L.3
1	B	Comparison Adverbs	CC.4.L.1, L.3	10	D	Editing: Adverbs vs. Adjectives	CC.4.L.1, L.3
2	C	Comparison Adverbs	CC.4.L.1, L.3	11a	Editing Rubric	Editing Task: Relative Adverbs	CC.4.L.1.a, L.3, W.5
3	D	Comparison Adverbs	CC.4.L.1, L.3	11b	Editing Rubric	Editing Task: Prepositions	CC.4.L.1, L.3, W.5
4	A	Comparison Adverbs	CC.4.L.1, L.3	11c	Editing Rubric	Editing Task: Adverbs vs. Adjectives	CC.4.L.1, L.3, W.5
5	A	Comparison Adverbs	CC.4.L.1, L.3	11d	Editing Rubric	Editing Task: Comparison Adverbs	CC.4.L.1, L.3, W.5
6	B	Comparison Adverbs	CC.4.L.1, L.3	11e	Editing Rubric	Editing Task Relative Adverbs	CC.4.L.1.a, L.3, W.5
Prompt (7)	Skill Rubric	Break Up Long Sentences	CC.4.W.1.f	11f	Editing Rubric	Editing Task: Prepositions	CC.4.L.1, L.3, W.5
Week 3				Prompt (12)	Skill Rubric, Writing Rubric	Maintain Point of View	CC.4.W.3
Item	Key	Item Descriptor	CCSS Code				
1	C	Relative Adverbs	CC.4.L.1.a, L.3				
2	A	Relative Adverbs	CC.4.L.1.a, L.3				
3	C	Relative Adverbs	CC.4.L.1.a, L.3				
4	B	Relative Adverbs	CC.4.L.1.a, L.3				
Prompt (5)	Skill Rubric	Use Concluding Sentences	CC.4.W.3.e				

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# Answer Keys and Rubrics

Writing, Revising, and Editing	
<b>Week 1 Skill Rubric</b> Item 7 (Prompt)   Identify Big Concepts; Integrate Information	
Student writes an informational paragraph with	
4 points	consistent focus and seamless information from two sources.
3 points	adequate focus and relevant information from two sources.
2 points	some focus and limited information from two sources.
1 point	minimal focus and little or no information from second source.
<b>Week 2 Skill Rubric</b> Item 7 (Prompt)   Break Up Long Sentences	
Student revises a paragraph using sentences that	
4 points	flow smoothly and are effortless to understand.
3 points	flow adequately and are easy to understand.
2 points	have stilted flow and require rereading to understand.
1 point	are too long or too choppy or introduce serious syntactical errors.
<b>Week 3 Skill Rubric</b> Item 5 (Prompt)   Use Concluding Sentences	
Student writes a concluding sentence that	
4 points	is satisfying.
3 points	resolves the problem.
2 points	relates to the problem.
1 point	relates to the story but does not address the problem.

Writing, Revising, and Editing	
<b>Unit Test: Week 4 Skill Rubric</b> Item 12 (Prompt)   Maintain Point of View	
Student writes a personal narrative with	
4 points	consistent and accurate point of view.
3 points	generally accurate point of view.
2 points	occasionally accurate point of view.
1 point	haphazard point of view.
Use the Writing Rubric on page A7.41 to assess the writing traits of student responses for the Unit Test Writing Prompt.	
<b>Unit Test Editing Task Rubric</b> Item 11   1 point correct per response	
11a	In sentence 1, change "where" to "when"
11b	In sentence 2, change "at" to "to"
11c	In sentence 3, change "good" to "well"
11d	In sentence 5, change "smoother" to "more smoothly"
11e	In sentence 7, change "where" to "why"
11f	In sentence 11, change "around" to "about"
Reading Comprehension	
<b>Unit Test Rubric</b> Item 22   Compare and Contrast Accounts	
3 points	Fully demonstrates an understanding of the difference between firsthand and secondhand accounts.
2 points	Demonstrates a limited understanding of the difference between firsthand and secondhand accounts.
1 point	Demonstrates a minimal or incorrect understanding.

## Conversion Charts: Points Earned to Percent Scored

4 points						
Points	1	2	3	4		
%	25	50	75	100		

6 points						
Points	1	2	3	4	5	6
%	17	33	50	67	83	100

8 points								
Points	1	2	3	4	5	6	7	8
%	13	25	38	50	63	75	88	100

10 points										
Points	1	2	3	4	5	6	7	8	9	10
%	10	20	30	40	50	60	70	80	90	100

12 points												
Points	1	2	3	4	5	6	7	8	9	10	11	12
%	8	17	25	33	42	50	58	67	75	83	92	100

17 points																	
Points	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
%	6	12	18	24	29	35	41	47	53	59	65	71	76	82	88	94	100

19 points																			
Points	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
%	5	11	16	21	26	32	37	42	47	53	58	63	68	74	79	84	89	95	100

20 points																				
Points	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
%	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100

24 points																				
Points	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
%	4	8	13	17	21	25	29	33	38	42	46	50	54	58	63	67	71	75	79	83

Points		
21	22	23
24		

%		
88	92	96
100		

# Compare and Contrast

## Review the Rules

You can compare and contrast things you read about in a text.

- To compare, tell how two or more things are alike.
- To contrast, tell how two ore more things are different.

## Practice

Read "Vehicles" and underline the sentences that compare. Then, complete the chart to show the contrasts.

**Vehicles**

Many people in our city drive cars or ride bicycles. Both vehicles help people get from one place to another. But, they are very different. Cars have motors that help them move. Bicycles move when the rider pushes the pedals. Bicycles have two wheels, but cars have four. People use the handlebars to guide bicycles. They use steering wheels to guide cars. Both vehicles are a good way to get around.

Vehicle	How They Move	Number of Wheels	How People Guide Them
Bicycle			
Car			

## Apply

Tell a partner about a comparison or a contrast from one of your Small Group Reading books. List two ways they are alike or different.

# Synthesize

## Review the Rules

You can synthesize or draw conclusions when you read.

- Look for an important detail in the text.
- Look for another important idea.
- Think about how the ideas work together.

## Practice

Read "Fun in the Afternoon" and complete the sentences. Then answer the question.

### Fun in the Afternoon

Anjali and Arjun are putting on their coats. They look out the window as they put on mittens and hats. "This is going to be a great day!" Anjali says. The weather is perfect for what they have planned. Arjun grabs the sled from the closet. "I get to go down the hill first!" Together, they run outside into the cold air.

- 1 I read \_\_\_\_\_
- 2 I also read \_\_\_\_\_  
\_\_\_\_\_
- 3 I connect the ideas and conclude \_\_\_\_\_  
\_\_\_\_\_

What time of the year is it? How do you know?

\_\_\_\_\_  
\_\_\_\_\_

## Apply

Tell a partner how you synthesize details from one of your Small Group Reading books. List details from the text that support your synthesis.

# Explain Scientific Text

## Review the Rules

Scientific texts give information about science topics. To explain scientific texts, use the

- introduction
- headings
- conclusion.

## Practice

Read this passage and then answer the questions.

Prairie dogs are like small ground squirrels. They are native to the grasslands of North America. These animals live in villages under the ground.

### **Prairie Dog Communication**

Prairie dogs have their own language. They bark and whine. They also click their teeth to “talk” to each other. Scientists have recorded many of these sounds.

Prairie dogs are interesting animals. Scientists can learn a lot by studying them.

- 1 What does the introduction tell you about prairie dogs?  
\_\_\_\_\_  
\_\_\_\_\_
- 2 Which part of the passage is the heading? \_\_\_\_\_
- 3 What does the conclusion tell you about prairie dogs?  
\_\_\_\_\_  
\_\_\_\_\_

## Apply

Explain a scientific text from one of your Small Group Reading books. Share the information you learned from the different text features with a partner.

# Explain Reasons and Evidence

## Review the Rules

Authors use reasons and evidence to support

- their main ideas
- their opinions.

## Practice

Read "Life as a Farmer." Then, answer the questions.

### Life as a Farmer

Being a farmer is very rewarding. I like to see beautiful sunrises early in the morning. I also enjoy working in and around nature. There is plenty of nature on the farm. There are birds, cows, and chickens. Farming is a great job.

- 1 What is the main idea of the passage?  
\_\_\_\_\_
- 2 What reasons does the author give for enjoying farming?  
\_\_\_\_\_  
\_\_\_\_\_
- 3 What evidence does the author give to support his or her opinion?  
\_\_\_\_\_  
\_\_\_\_\_

## Apply

Tell a partner about the author's opinion from one of your Small Group Reading books. List how the author supports his or her opinions with reasons and evidence.

# Synthesize

## Review the Rules

You can synthesize or draw conclusions when you read.

- Look for an important detail in the text.
- Look for another important idea.
- Think about how the ideas work together.

## Practice

Read “The Walk” and complete the sentences. Then answer the question.

### The Walk

Darnell is walking down the street when he suddenly stops. He feels like he can't move. Walking toward him is a woman with a large, black dog. The dog is on a leash, but that doesn't make Darnell feel any better. He starts to sweat, and his chest feels tight. After running across the street, Darnell feels much better.

- 1 I read \_\_\_\_\_
- 2 I also read \_\_\_\_\_
- 3 I connect the ideas and conclude \_\_\_\_\_

Can the dog come across the street to be near Darnell? How do you know?

\_\_\_\_\_  
\_\_\_\_\_

## Apply

Synthesize for a partner the details from one of your Small Group Reading books to draw a conclusion. List details from the text that support your idea.



# Writing Trait: Sentence Fluency

## Review the Rules

You can write fluent sentences by

- choosing words that support your topic
- writing sentences that are not too long or too short
- making sure your writing sounds natural when you read it aloud.

## Practice

Read each item. Check the box to show which item has the best sentence fluency.

	Best Sentence Fluency
Erik is tired. He feels sleepy. This is because Erik has too much homework. He decides to go to bed early because he is so sleepy.	
Erik feels very tired. He has a lot of homework, so he has been working hard. Going to bed early feels like right choice.	

## Apply

Rewrite the item below to improve the sentence fluency.

Diamond wants to go to art school because she likes art and likes to show people her art. She's good. Diamond will try to see if she can go to art school when graduation from high school is over.

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# Plot

## Review the Rules

A plot usually has a problem, an event in the story that causes a change, and a solution.

- Stories have a beginning, a middle, and an end.
- The event that causes a change in the story is called the turning point.

## Practice

Read “Star Gazer” and complete the story map. Then, circle the turning point in the story.

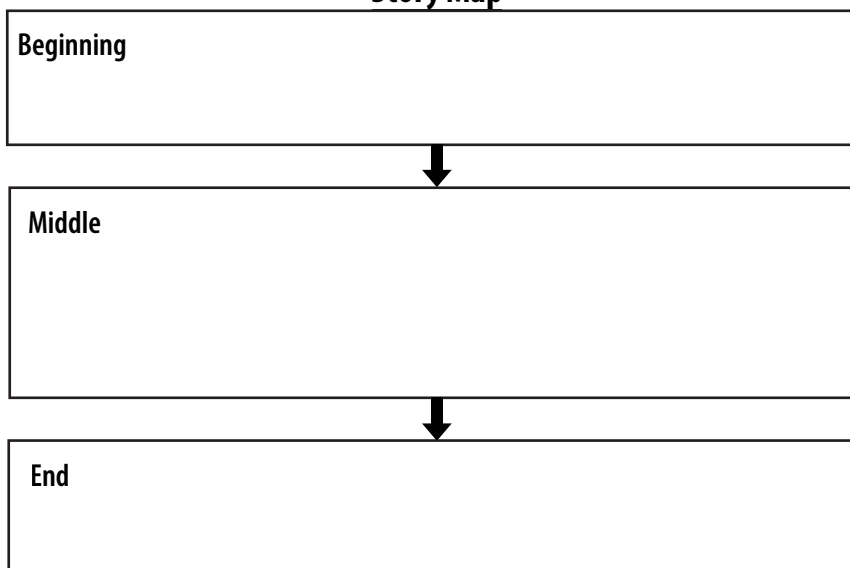
**Star Gazer**

Misha loves space. He lies in bed at night and looks at the stars. He dreams of being an astronaut.

Misha reads books about space. But, it's not enough. Misha needs to be closer to the stars.

Misha's mother learns about a new, strong home telescope. The whole family saves until they can buy it for Misha's birthday. Misha is very happy!

### Story Map



## Apply

Tell a partner about a problem in one of your Small Group Reading books. Tell where the important change occurs in the plot and changes the story.

# Synthesize

## Review the Rules

When you synthesize, you combine what you know with what you read. Then, you make a generalization based on both.

- Look for details in the text.
- Think about what you already know about the details.
- Make a general statement that can be true about many things.

## Practice

Read "Exploring Space" and complete the chart.

**Exploring Space**

Since the 1960s, six U.S. spacecrafts have landed on the moon. The most famous was Apollo 11. That's when Neil Armstrong became the first person to walk on the moon.

Now, many spacecraft have been sent to Mars. They take photographs, measure temperatures, and survey the land. Scientists are learning what Mars is really like. So far, no people have landed on Mars. Russia plans to send the first astronaut to Mars one day. Will people walk on Mars, too?

Details	What I Know	Generalization
1. The U.S. landed six spacecrafts on the moon. 2. Spacecraft explore Mars. 3. Russia plans to send an astronaut to Mars.		

## Apply

Tell a partner about a generalization you made as you read one of your Small Group Reading books and how what you read led you to make that generalization.

# Writing Trait: Organization

## Review the Rules

Stories that are organized well usually

- present ideas in a logical sequence
- present a clear problem with a character and a resolution.

## Practice

Read the story and complete the map. Write the sequence of events in the boxes. Then underline the problem in the story. Underline the resolution twice.

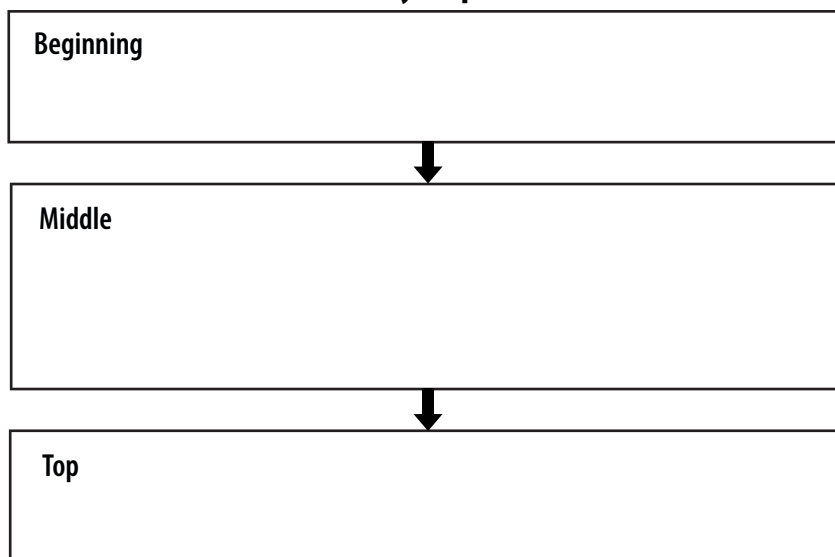
**The Science Project**

Lilah is excited about her science project. She builds a model of the solar system in her bedroom. She proudly shows it to her friends and family.

On the day of the science fair, Lilah starts to grab her model. It is gone! She is upset. Then, her mom walks in.

“Your project already is at the school,” her mom says. “I took it early this morning so that you didn't worry.” Lilah hugs her mom.

### Story Map



## Apply

On a separate piece of paper write an original story with events that follow a logical order. Give a character a problem that requires a solution.

# Point of View

## Review the Rules

Fiction and nonfiction texts can have different points of view.

- **First-person point of view** uses words like *I, my, me, we, and our*. The narrator is part of the story.
- **Third-person point of view** describes what other people say and do. It uses words like *he, she, his, they, and their*. The narrator is not part of the action.

## Practice

Read “One Small Word” and underline the pronouns that show point of view. Then write the point of view below the box.

### One Small Word

When Neil Armstrong stepped on the moon, he said something that is now famous. He said, “One small step for man, one giant leap for mankind.” He actually got it wrong.

The space program had asked Armstrong to say, “One small step for a man.” By leaving out the *a*, the meaning became different. The moon landing was no small step for man or mankind, but a giant leap toward more space travel in the future. Later, Armstrong talked about the issue. He insisted that he did say the phrase correctly.

The point of view is \_\_\_\_\_

## Apply

Compare points of view with a partner from one of your Small Group Reading books. Discuss how each point of view differs from the other.

# Compare and Contrast Accounts

## Review the Rules

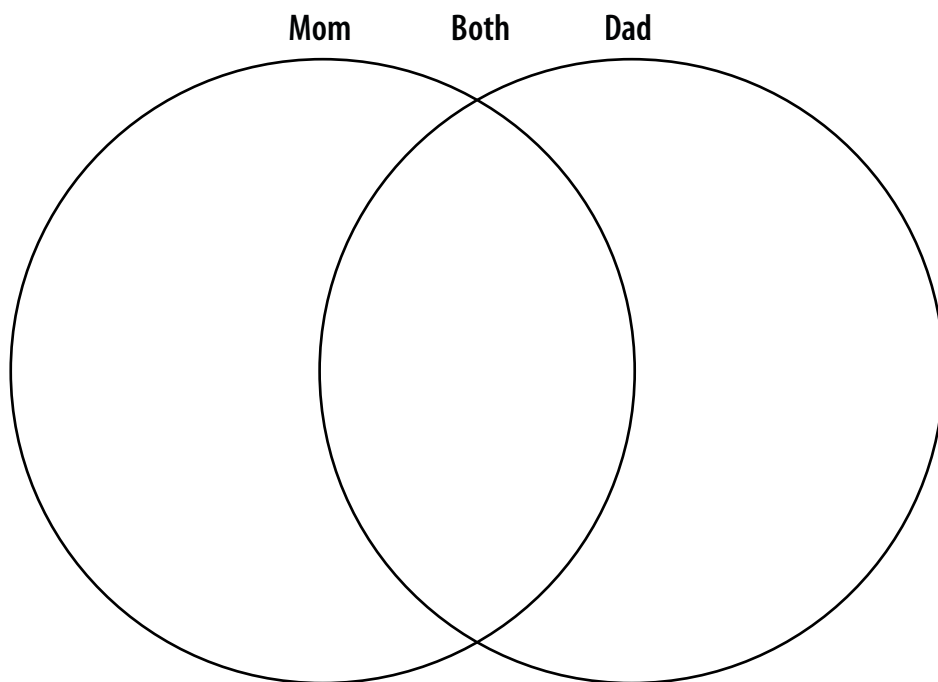
An account is a report of an event. Some accounts are similar. Some are different. It depends on who gives the account.

## Practice

Read "The Rocket Disaster" and complete the Venn diagram.

### The Rocket Disaster

Last week, my father and my brother Jack made a little rocket. They sent it into the sky. My family debates what happened next! My dad says that my brother tripped over the launching pad. That's why the rocket flew into a window of our house. My dad argues that he saw everything. My mom says my dad was too busy giving instructions to notice. In fact, she is sure that my brother was on the patio, not the yard. She thinks my dad put the rocket together wrong. They agree on one thing: Little rockets can be dangerous!



## Apply

With a partner, compare accounts of the same event from one of your Small Group Reading books. Discuss how each account is the same and different.

# Synthesize

## Review the Rules

When you synthesize, you combine what you know with what you read in the text. Then, you make a generalization based on what you read and what you know.

- Look for details in the text.
- Think about what you already know about the details.
- Make a general statement that can be true about many things.

## Practice

Read "Halley's Comet" and complete the chart.

**Halley's Comet**

Halley's Comet is named for Edmond Halley. He was a scientist in the 1600s. Halley thought this comet would come back in 75 to 76 years. Other scientists thought Halley was wrong. They thought comets come once and then die. But, Halley was right. This comet comes back during our lifetime. You can see the next Halley's Comet in 2061. Mark it on your calendars!

Details	What I Know	Generalization
Halley's comet comes every 75-76 years.		

## Apply

Tell a partner about a generalization you made as you read one of your Small Group Reading books. Tell what information led you to make that generalization.

# Writing Trait: Voice

## Review the Rules

### Writing with effective voice

- sounds natural when read aloud, the way a person would talk
- uses realistic dialogue, expressions, idioms, and details
- sticks with one point of view.

## Practice

Read the paragraph. Underline sentences that show clear voice. Underline words that show point of view twice.

### Moon Landing and More

We watched a documentary about the first moon landing. It was so cool! I learned that Neil Armstrong was the first person to walk on the moon. Although it was a long time ago, I'm still excited to think that someone walked around up there. I try to imagine what that must have been like for Armstrong. By the time I am older, people may be walking on Mars. That would be awesome. Maybe I will be the first person to go to Mars.

## Apply

Write a paragraph about a news event you watched. Tell how it made you feel. Give your writing a clear and effective voice.

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# Reteaching Masters Answer Key

## RT7.1 Compare and Contrast

**Vehicles**

Many people in our city drive cars or ride bicycles. Both vehicles help people get from one place to another. But, they are very different. Cars have motors that help them move. Bicycles move when the rider pushes the pedals. Bicycles have two wheels, but cars have four. People use the handlebars to guide bicycles. They use steering wheels to guide cars. Both vehicles are a good way to get around.

Vehicle	How They Move	Number of Wheels	How People Guide Them
Bicycle	motor	two	handlebars
Car	ride pushes pedals	four	steering wheels

## RT7.2 Synthesize

1. that Anjali and Arjun are putting on coats, mittens, and hats.
2. that the wether is good, and Arjun grabs a sled.
3. that Anjali and Arjun are going sledding.

It's winter. I know this because there is cold weather, and they are going sledding. People can get around the city in many different ways.

## RT7.3 Explain Scientific Text

1. They are like small ground squirrels that live in North America in villages under the ground.
2. Prairie Dog Communication
3. Scientists can learn a lot from these interesting animals.

## RT7.4 Explain Reasons and Evidence

1. Being a farmer is very rewarding.
2. likes seeing sunrises early in the morning; enjoys working around nature
3. says there i a lot of nature onthe farm; lists birds, cows, and chickens as evidence

## RT7.5 Synthesize

1. that Darnell stops walking and feels like he can't move.
2. that there is a large, black dog walking toward Darnell.
3. that Darnellis afraid of dogs

No. The dog is on a leash. The leash will keep the dog with its owner. Also, Darnell feels much better, so he must be safe.

## RT7.6 Writing Trait: Sentence Fluency

	Best Sentence Fluency
Erik is tired. He feels sleepy. This is because Erik has too much homework. He decides to go to bed early because he is too sleepy.	
Erik feels very tired. He has a lot of homework, so he has been working hard. Going to bed early feels like right choice.	✓

## Apply

Possible Response:

Diamond wants to go to art school. She enjoys making art and sharing it with others. Because she is very good, Diamond will try to go to art school when she graduates from high school.

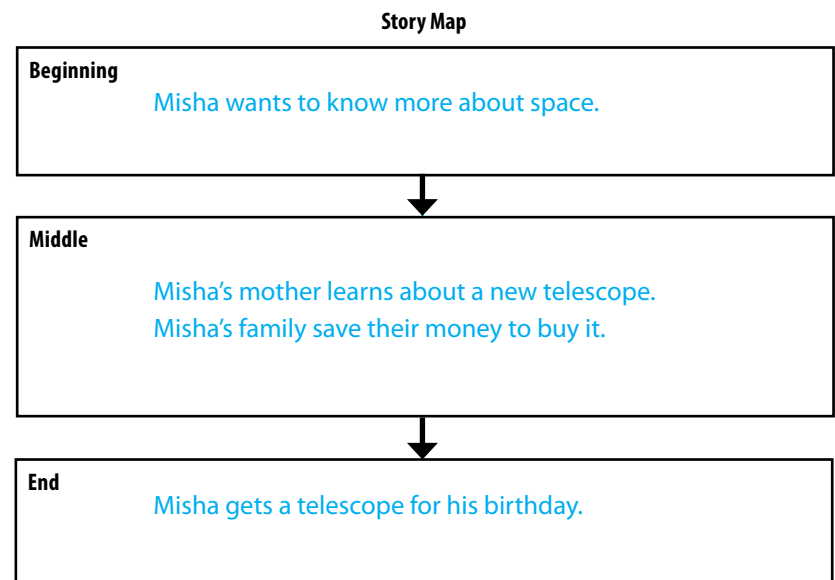
## RT7.7 Plot

**Star Gazer**

Misha loves space. He lies in bed at night and looks at the stars. He dreams of being an astronaut.

Misha reads books about space. But, it's not enough. Misha needs to be closer to the stars.

Misha's mother learns about a new, strong home telescope. The whole family saves until they can buy it for Misha's birthday. Misha is very happy!



# Reteaching Masters Answer Key, continued

## RT7.8 Synthesize

Details	What I Know	Generalization
1. The U.S. landed six spacecrafts on the moon. 2. Spacecraft explore Mars. 3. Russia plans to send an astronaut to Mars.	Mars is even farther away than the moon.	Modern people are very interested in exploring space.

## RT7.9 Writing Trait: Organization

### The Science Project

Lilah is excited about her science project. She builds a model of the solar system in her bedroom. She proudly shows it to her friends and family.

On the day of the science fair, Lilah starts to grab her model. It is gone! She is upset. Then, her mom walks in.

"Your project already is at the school," her mom says. "I took it early this morning so that you didn't worry." Lilah hugs her mom.

### Story Map

#### Beginning

Lilah builds a model for her science project.

#### Middle

She shows her project to her friends.  
Then her project is missing.

#### End

Lilah's mom had taken the project to school.

## RT7.10 Point of View

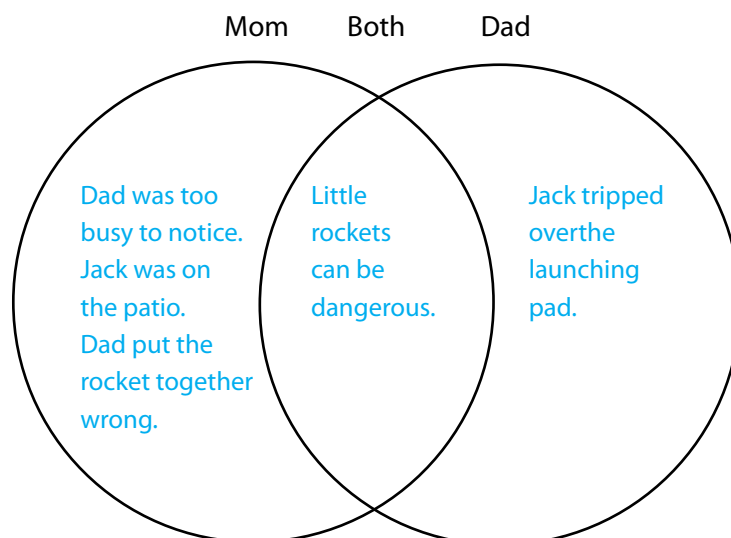
### One Small Word

When Neil Armstrong stepped on the moon, he said something that is now famous. He said, "One small step for man, one giant leap for mankind." He actually got it wrong.

The space program had asked Armstrong to say, "One small step for a man." By leaving out the a, the meaning became different. The moon landing was no small step for man or mankind, but a giant leap toward more space travel in the future. Later, Armstrong talked about the issue. He insisted that he did say the phrase correctly.

the third person

## RT7.11 Compare and Contrast Accounts



## RT7.12 Synthesize

Details	What I Know	Generalization
Halley's comet comes every 75-76 years.	Sample response: My mom saw Halley's comet in 1986. She said it was exciting.	A comet that returns in our lifetime is exciting.

## RT7.13 Writing Trait: Voice

### Moon Landing and More

We watched a documentary about the first moon landing. It was so cool! I learned that Neil Armstrong was the first person to walk on the moon. Although it was a long time ago, I'm still excited to think that someone walked around up there. I try to imagine what that must have been like for Armstrong. By the time I am older, people may be walking on Mars. That would be awesome. Maybe I will be the first person to go to Mars.

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# Reading Level Translation Key

	Guided Reading	DRA	Lexile®	Reading Recovery	
<b>K</b>	A	A-2		A-2	<b>K</b>
	B	3		3	
	C			4	
<b>1</b>	D	4	200L-400L	5	<b>1</b>
				6	
	E	6		7	
	F	8		8	
				9	
	G	10		10	
	H			11	
	I	12		12	
	J	14		14	
				15	
<b>2</b>		16	200L-400L		<b>2</b>
	K				
	L-M	18-28	300L-500L	18-20	
<b>3</b>	N-P	30-38	500L-700L	22-24	<b>3</b>
<b>4</b>	Q-R	40	650L-850L	26	<b>4</b>
<b>5</b>	S-U	44	750L-950L	28	<b>5</b>
<b>6</b>	V-W	50	850L-1000L		<b>6</b>


Reading levels are provided for each title in the *National Geographic Reach for Reading* Grade 1-2 Leveled Reading and Grades 3-5 Small Group Reading lessons. Please note that each leveling system is based on a different set of criteria. This may result in discrepancies when translating reading levels.

# Grade 4 Unit 7 Cumulative Key Word List

ability (n)	defend (v)	<b>limit (v)</b>	region (n)
<b>accelerate (v)</b>	detail (n)	locate (v)	relate (v)
adaptation (n)	determine (v)	map (n)	relationship (n)
adventure (n)	discovery (n)	marriage (n)	renewable (adj)
analyze (v)	<b>distance (n)</b>	material (n)	<b>resistance (n)</b>
ancestor (n)	effect (n)	<b>measure (v)</b>	resource (n)
ancient (adj)	electricity (n)	medium (n)	response (n)
archaeologist (n)	element (n)	memory (n)	responsible (adj)
artifact (n)	elevation (n)	merchant (n)	risk (n)
<b>astronaut (n)</b>	empire (n)	migration (n)	ritual (n)
atmosphere (n)	environment (n)	mission (n)	role (n)
author's purpose	equator (n)	modify (v)	<b>rotation (n)</b>
available (adj)	examine (v)	mold (n)	route (n)
<b>average (n)</b>	experiment (n)	monitor (v)	<b>scale (n)</b>
balance (n)	exploration (n)	<b>motion (n)</b>	scarce (adj)
behavior (n)	express (v)	motive (n)	sequence (n)
belief (n)	feature (n)	musical (adj)	service (n)
benefit (n)	figurative language	narrator (n)	site (n)
border (n)	flow (v)	native (adj)	skill (n)
canyon (n)	force (n)	natural (adj)	solution (n)
<b>capacity (n)</b>	galleon (n)	navigation (n)	<b>solve (v)</b>
cause (n)	<b>generalization (n)</b>	object (n)	species (n)
ceremony (n)	generate (v)	occasion (n)	<b>speed (n)</b>
characteristic (n)	globe (n)	ocean (n)	spore (n)
chart (n)	<b>graph (n)</b>	official (adj)	spread (v)
civilization (n)	habitat (n)	<b>orbit (v)</b>	stanza (n)
<b>clarify (v)</b>	<b>height (n)</b>	outcome (n)	strategy (n)
coastal (adj)	hemisphere (n)	outline (n)	style (n)
colony (n)	heritage (n)	pattern (n)	suggest (v)
command (n)	hero (n)	perform (v)	surface (n)
communication (n)	historical (adj)	physical (adj)	survival (n)
<b>comparison (n)</b>	humid (adj)	plain (n)	<b>synthesize (v)</b>
compass (n)	hyperbole (n)	<b>planet (n)</b>	<b>technology (n)</b>
competition (n)	imagine (v)	plateau (n)	theme (n)
<b>conclusion (n)</b>	imitate (v)	population (n)	threatened (adj)
conservation (n)	inference (n)	port (n)	tool (n)
<b>constant (n)</b>	influence (v)	pottery(n)	trade (v)
contain (v)	inhabitant (n)	power (n)	tradition (n)
continent (n)	inherit (v)	predator (n)	trait (n)
control (v)	interact (v)	preserve (v)	transport (v)
convert (v)	interpret (v)	president (n)	treasure (n)
country (n)	introduce (v)	preview (v)	trickster (n)
courage (n)	invade (v)	prey (n)	valley (n)
craft (n)	investigate (v)	principle (n)	value (v)
create (v)	landform (n)	procedure (n)	visualize (v)
culture (n)	landscape (n)	project (n)	volunteer (n)
currency (n)	landscape (n)	protect (v)	weave (v)
current (adj)	language (n)	range (n)	
custom (n)	<b>launch (v)</b>	<b>rate (n)</b>	
decompose (v)	learn (v)	record (n)	
	legend (n)		

Words from Unit 7 appear in red type. For additional content words and story words, please see the Small Group Reading section.

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**Strategies for Learning Language**

These strategies can help you learn to use and understand the English language.



**1 Listen actively and try out language.**


What to Do	Examples
Repeat what you hear.	<p><b>You hear:</b> Way to go, Joe! Fantastic catch!</p> <p><b>You say:</b> Way to go, Joe! Fantastic catch!</p>
Recite songs and poems.	<p><i>My Family Tree</i> Two grandmas, one brother, Two grandpas, one mother, One father, and then there's me. Eight of us together Make up my family tree.</p> <p>Two grandmas, one brother...</p>
Listen to others and use their language.	<p><b>You hear:</b> "When did you know that something was missing?"</p> <p><b>You say:</b> "I knew that something was missing when I got to class."</p>

**2 Ask for help.**

What to Do	Examples
Ask questions about how to use language.	<p>Did I say that right?</p> <p>Did I use that word in the right way?</p> <p>Which is correct, "bringed" or "brought"?</p>
Use your native language or English to make sure that you understand.	<p><b>You say:</b> "Wait! Could you say that again more slowly, please?"</p> <p><b>Other options:</b> "Does 'violet' mean 'purple'?" "Is 'enormous' another way to say 'big'?"</p>

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**3 Use gestures and body language, and watch for them.**

What to Do	Examples
Use gestures and movements to help others understand your ideas.	<p>I will hold up five fingers to show that I need five more minutes.</p> 
Watch people as they speak. The way they look or move can help you understand the meaning of their words.	<p>Let's give him a hand.</p> <p>Everyone is clapping. "Give him a hand" must mean to clap for him.</p>

**4 Think about what you are learning.**

What to Do	Examples
Ask yourself: Are my language skills getting better? How can I improve?	<p>Was it correct to use "they" when I talked about my grandparents?</p> <p>Did I add 's' to show ownership?</p>
Keep notes about what you've learned. Use your notes to practice using English.	<p><i>How to Ask Questions</i></p> <ul style="list-style-type: none"> <li>• I can start a question with "is," "can," or "do": Do you have my math book?</li> <li>• I can start a question with "who," "what," "where," "when," "how," or "why" to get more information: Where did you put my math book?</li> </ul>

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## Vocabulary Strategies

When you read, you may find a word you don't know. But, don't worry! There are many things you can do to figure out the meaning of an unfamiliar word.

### Use What You Know

Ask yourself "Does this new word look like a word I know?" If it does, use what you know about the familiar word to figure out the meaning of the new word. Think about:

- **word families**, or words that look similar and have related meanings. The words *locate*, *location*, and *relocate* are in the same word family.
- **cognates**, or pairs of words that look the same in English and in another language. The English word *problem* and the Spanish word *problema* are cognates.

### On the Top of the World

Mount Everest is the highest mountain in the world. It is 29,028 feet (8,848 meters) high. This **magnificent** mountain is covered in permanently frozen snow and ice. But this doesn't stop **adventurous** climbers from trying to reach its peak.



This English word looks like **magnifico**. That means "beautiful" in Spanish. I think that meaning makes sense here, too.

I know that **adventure** means "an exciting event" and that an **adventurer** is "someone who takes risks." So, **adventurous** probably means "willing to be a part of risky activities."

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### Use Context Clues

Sometimes you can figure out a word's meaning by looking at other words and phrases near the word. Those words and phrases are called **context clues**.

There are different kinds of context clues. Look for signal words such as *means*, *like*, *but*, or *unlike* to help you find the clues.



Extremely cold temperatures are hazardous to mountain climbers.

Kind of Clue	Signal Words	Example
<b>Definition</b> Gives the word's meaning.	<i>is, are, was, refers to, means</i>	Hazardous <b>refers to something that causes harm or injury.</b>
<b>Restatement</b> Gives the word's meaning in a different way, usually after a comma.	<i>or</i>	Mountain climbing can be hazardous, <b>or result in injuries to climbers.</b>
<b>Synonym</b> Gives a word or phrase that means almost the same thing.	<i>like, also</i>	Sudden drops in temperature can be hazardous. <b>Also dangerous</b> are very high altitudes that make it hard to breathe.
<b>Antonym</b> Gives a word or phrase that means the opposite.	<i>but, unlike</i>	The subzero temperatures can be hazardous, <b>but</b> special gear keeps the climbers <b>safe.</b>
<b>Examples</b> Gives examples of what the word means.	<i>such as, for example, including</i>	Climbers prepare for hazardous situations. <b>For example</b> , they carry <b>extra food, equipment for heavy snowfall, and first-aid kits.</b>

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## Vocabulary Strategies, *continued*

### Use Word Parts

Many English words are made up of parts. You can use these parts as clues to a word's meaning.

When you don't know a word, look to see if you know any of its parts. Put the meaning of the word parts together to figure out the meaning of the whole word.

### Compound Words

A compound word is made up of two or more smaller words. To figure out the meaning of the whole word:

1. Break the long word into parts. keyboard = key + board
2. Put the meanings of the smaller words together to predict the meaning of the whole word.
  - key = button
  - + board = flat surface
  - keyboard = flat part of computer with buttons
3. If you can't predict the meaning from the parts, use what you know and the meaning of the other words to figure it out. lap + top = laptop



**laptop** means "small portable computer," not "the top of your lap"

### Prefixes

A prefix comes at the beginning of a word. It changes the word's meaning. To figure out the meaning of an unfamiliar word, look to see if it has a prefix.

1. Break the word into parts. Think about the meaning of each part. I need to **rearrange** the files on my computer. re- + arrange  
The prefix *re-* means "again." The word *arrange* means "to put in order."  
The word *rearrange* means "to put in order again."
2. Put the meanings of the word parts together.

### Some Prefixes and Their Meanings

Prefix	Meaning
anti-	against
dis-	opposite of
In-	not
mis	wrongly
pre-	before
re-	again, back
un-	not

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### Suffixes

A suffix comes at the end of a word. It changes the word's meaning and part of speech. To figure out the meaning of new word, look to see if it has a suffix.

1. Break the word into parts. Think about the meaning of each part. My **teacher** helps me find online articles. teach + -er  
**verb**  
The word *teach* means "to give lessons." The suffix *-er* means "one who."  
A **teacher** is "a person who gives lessons."  
**noun**
2. Put the meanings of the word parts together.

### Some Suffixes and Their Meanings

Suffix	Meaning
-able	can be done
-al	having characteristics of
-ion	act, process
-er, -or	one who
-ful	full of
-less	without
-ly	in a certain way

### Greek and Latin Roots

Many words in English have Greek and Latin roots. A root is a word part that has meaning, but it cannot stand on its own.

1. Break the unfamiliar word into parts. I won't be done in time if there's one more **interruption!**  
inter + rupt + ion  
**prefix** **root** **suffix**
2. Focus on the root. Do you know other words with the same root? "I've seen the root **rupt** in the words *erupt* and *rupture*. 'rupt' must have something to do with breaking or destroying something."
3. Put the meanings of all the word parts together. **between** **act or process**  
inter + rupt + ion = interruption  
**break** **a break in activity**

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## Vocabulary Strategies, *continued*

### Look Beyond the Literal Meaning

Writers use colorful language to keep their readers interested. They use words and phrases that mean something different from their usual definitions. Figurative language and idioms are kinds of colorful language.

#### Figurative Language: Similes

A simile compares two things that are alike in some way. It uses the words *like* or *as* to make the comparison.

Simile	Things Compared	How They're Alike
Cory hiked across the desert <b>as sluggishly as a snail</b> .	Cory and a snail	They both move very slowly.
His skin was <b>like sheets of sandpaper</b> .	skin and sandpaper	They are both rough and very dry.

#### Figurative Language: Metaphors

A metaphor compares two things without using the words *like* or *as*.

Metaphor	Things Compared	Meaning
The <b>sun's rays were a thousand bee stings</b> on his face.	sun's rays and bee stings	The sun's rays blistered his face.
His only <b>companion was thirst</b> .	friend and thirst	His thirst was always there with him.

#### Figurative Language: Personification

When writers use personification they give human qualities to nonhuman things.

Personification	Object	Human Quality
The <b>angry sun</b> kept punishing him.	sun	has feelings
A <b>cactus reached out</b> to him.	cactus	is able to be friendly

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### Idioms

An idiom is a special kind of phrase that means something different from what the words mean by themselves.

#### What you say:

If the topic is Mars, I'm **all ears**.

#### Break a leg!

Rachel had to **eat her words**.

#### Give me a break!

**Hang on**.

I'm **in a jam**.

The joke was so funny, Lisa **laughed her head off**.

Juan was **steamed** when I lost his video game.

Let's **surf the Net** for ideas for report ideas.

I'm so tired, I just want to **veg out**.

Rob and Zak are together **24-seven**.

**You can say that again**.

**Zip your lips!**

#### What you mean:

If the topic is Mars, I'll **listen very carefully**.

#### Good luck!

Rachel had to **say she was wrong**.

#### That's ridiculous!

**Wait**.

I'm **in trouble**.

The joke was so funny, Lisa **laughed very hard**.

Juan was **very angry** when I lost his video game.

Let's **look around the contents of the Internet** for report ideas.

I'm so tired, I just want to **relax and not think about anything**.

Rob and Zak are together **all the time**.

**I totally agree with you**.

**Be quiet!**



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## Reading Strategies

Good readers use a set of strategies before, during, and after reading. Knowing which strategy to use and when will help you understand and enjoy all kinds of text.

### Plan and Monitor

Good readers have clear plans for reading. Remember to:

- **Set a purpose** for reading. Ask yourself: Why am I reading this? What do I hope to get from it?
- **Preview** what you are about to read. Look at the title. Scan the text, pictures, and other visuals.
- **Make predictions**, or thoughtful guesses, about what comes next. Check your predictions as you read. Change them as you learn new information.

Monitor, or keep track of, your reading. Remember to:

- **Clarify ideas and vocabulary** to make sure you understand what the words and passages mean. Stop and ask yourself: Does that make sense?
- **Reread, read on**, or **change your reading speed** if you are confused.

### Determine Importance

How can you keep track of all the facts and details as you read? Do what good readers do and focus on the most important ideas.

- Identify the **main idea**. Connect details to the main idea.
- **Summarize** as you read and after you read.

### Ask Questions

Asking yourself questions as you read keeps your mind active. You'll ask different types of questions, so you'll need to find the answers in different ways.

- Some questions are connected to answers **right there** in the text.
- Others cover more than one part of the text. So, you'll have to **think and search** to find the answers.

Not all answers are found in the book.

- **On your own** questions can focus on your experiences or on the big ideas of the text.
- **Author and you** questions may be about the author's purpose or point of view.

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### Visualize

Good readers use the text and their own experiences to picture a writer's words. When you **visualize**, use all your senses to see, hear, smell, feel, and taste what the writer describes.

### Make Connections

When you make connections, you put together information from the text with what you know from outside the text. As you read, think about:

- **your own ideas and experiences**
- what you know about the **world** from TV, songs, school, and so on
- **other texts** you've read by the same author, about the same topic, or in the same genre.

### Make Inferences

Sometimes an author doesn't tell a reader everything. To figure out what is left unsaid:

- Look for what the author emphasizes.
- Think about what you already know.
- Combine what you read with what you know to figure out what the author means.

### Synthesize

When you **synthesize**, you put together information from different places and come up with new understandings. You might:

- **Draw conclusions**, or combine what you know with what you read to decide what to think about a topic.
- **Form generalizations**, or combine ideas from the text with what you know to form an idea that is true in many situations.

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## Writing and Research

Writing is one of the best ways to express yourself. Sometimes you'll write to share a personal experience. Other times, you'll write to give information about a research topic. Whenever you write, use the following steps to help you say what you want clearly, correctly, and in your own special way.

### Prewrite

When you prewrite, you choose a topic and collect all the details and information you need for writing.

- 1 **Choose a Topic and Make a Plan** Think about your writing prompt assignment or what you want to write about.

- Make a list. Then choose the best idea to use for your topic.
- Think about your writing role, audience, and form. Add those to a RAFT chart.
- Jot down any research questions, too. Those will help you look for the information you need.

#### RAFT Chart

**Role:** scientist  
**Audience:** my teacher and classmates  
**Form:** report  
**Topic:** honeybees

- 2 **Gather Information** Think about your topic and your plan. Jot down ideas. Or, use resources like those on pages 579–582 to find information that answers your questions. Take notes.



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## Use Information Resources

### Books



A book is a good source of information.

#### Notecard

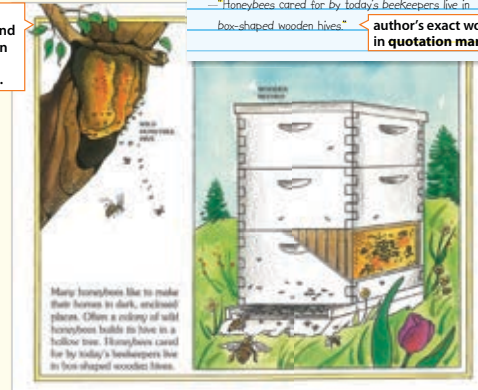
Where do honeybees live? < research question

The Honey Makers, by Gail Gibbons, page 6 < name of source

—Many honeybees live in dark places like hollow trees. < notes in your own words

—“Honeybees cared for by today’s beekeepers live in box-shaped wooden hives.” < author’s exact words in quotation marks

Read the pages to find information you need. Take notes.



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## Writing and Research, continued

### Encyclopedias

Each encyclopedia volume has facts about different topics.

guide words

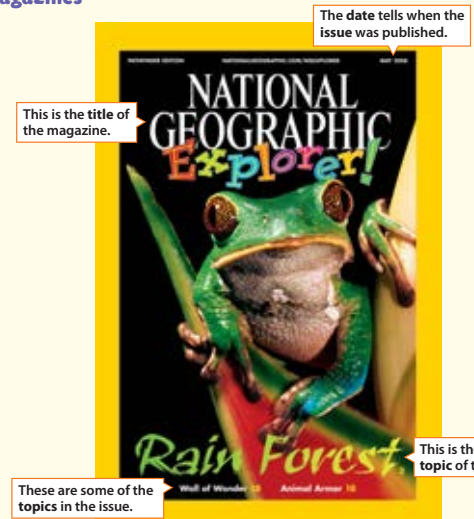


1. Look up your topic in the correct encyclopedia volume or on the CD-ROM.
2. Read the **guide words**. Keep turning the pages until you find the article you want. Use alphabetical order.
3. Read the **article** and take notes.

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### Magazines



The date tells when the issue was published.

This is the title of the magazine.

This is the main topic of the issue.

These are some of the topics in the issue.

### ... and Experts

Arrange a time to talk to an **expert**, or someone who knows a lot about your topic.

- Prepare questions you want to ask about the topic.
- Conduct the interview. Write down the person's answers.
- Choose the notes you'll use for your writing



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## Writing and Research, *continued*

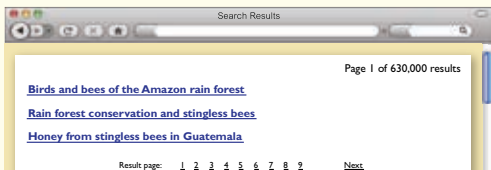
### Internet

The Internet is a connection of computers that share information through the World Wide Web. It is like a giant library. Check with your teacher for how to access the Internet from your school.

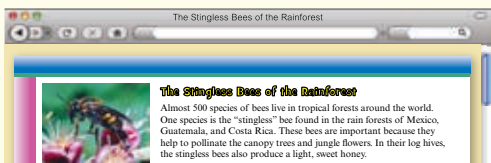
1. Go to a search page. Type in your key words. Click Search.



2. Read the list of Web sites, or pages, that have your key words. The underlined words are links to the Web sites.

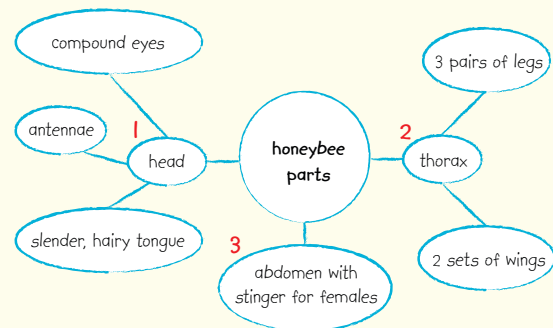


3. Click on a link to go directly to the site, or Web page. Read the article online. Or print it if it is helpful for your research. Later on, you can use the article to take notes.



4. **Get Organized** Think about all the details you've gathered about your topic. Use a list, a chart, or other graphic organizer to show what you'll include in your writing. Use the organizer to show the order of your ideas, too.

### Cluster



### Outline

#### The Helpful, Sweet Honeybee

- I. Important insects
  - A. help pollinate plants
    1. flowers and trees
    2. fruits
  - B. turn nectar into honey
- II. Honeybee homes
  - A. around the world
  - B. hives



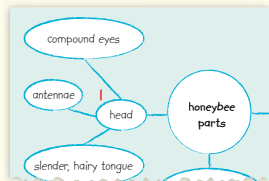
## Writing and Research, *continued*

### Draft

When you write your first draft, you turn all your ideas into sentences. You write quickly just to get all your ideas down. You can correct mistakes later.

### Cluster

Turn your main idea into a topic sentence. Then add the details.



### Beginning of a Description

One main part of a honeybee is the head. The bee's head seems to be mostly eyes! They are called compound eyes and have a lot of tiny lenses in them.

### Outline

Turn the main idea after each Roman numeral into a topic sentence. Then turn the words next to the letters and numbers into detail sentences that tell more about the main idea.

#### The Helpful, Sweet Honeybee

- I. Important insects
  - A. help pollinate plants
    1. flowers and trees
    2. fruits

### Beginning of a Report

#### The Helpful, Sweet Honeybee

You may think that all the honeybee does is make honey. But, believe it or not, this insect is always busy with another important job.

A honeybee helps keep plants growing. It helps to spread the pollen flowers and trees need to start new plants.

### Revise

When you revise, you make changes to your writing to make it better and clearer.

1. **Read, Retell, Respond** Read your draft aloud to a partner. Your partner listens and then retells your main points.

You are describing a honeybee's hive. Isn't a bee's nest the same as a hive?

Yes, it is. I don't need the word "nest," so I'll take it out.

Your partner can help you discover what is unclear or what you need to add. Use your partner's suggestions to decide what you can do to make your writing better.

2. **Make Changes** Think about your draft and what you and your partner discussed. What changes will you make? Use Revising Marks to mark your changes.

In the wild, honeybee scouts look for places to make hives ~~and nests~~. The opening needs to be high off the ground. They look for openings in hollow tree trunks. That way the hive will be safe from ~~harmful~~ <sup>predators</sup> animals. A hive needs to hold thousands of bees and all they gather. <sup>the nectar and pollen</sup> The best bee's nest will also face south so it stays warm.

### Revising Marks

- ^ Add.
- Move to here.
- ↖ Replace with this.
- ↗ Take out.

## Writing and Research, *continued*

### Edit and Proofread

When you edit and proofread, you look for mistakes in capitalization, grammar, and punctuation.

- 1 Check Your Sentences** Check that your sentences are clear, complete, and correct. Add any missing subjects or predicates.
- 2 Check Your Spelling** Look for any misspelled words. Check their spelling in a dictionary or a glossary.
- 3 Check for Capital Letters, Punctuation, and Grammar** Look especially for correct use of
  - capital letters in proper nouns
  - apostrophes and quotation marks
  - subject-verb agreement
  - pronouns
  - verb tenses
- 4 Mark Your Changes** Use the Editing and Proofreading Marks to show your changes.
- 5 Make a Final Copy** Make all the corrections you've marked to make a final, clean copy of your writing. If you are using a computer, print out your corrected version.

It is crowded and busy inside a honeybee hive. A hive can have more than 50000 honeybees. Most of them are worker bees. The worker bees create wax from their bodies to build combs. The combs are layers of cells, or holes. The cells hold nectar pollen, or larvae.

Editing and Proofreading Marks	
	Add.
	Take out.
	Replace with this.
	Check spelling.
	Capitalize.
	Make lowercase.
	Make new paragraph.

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### Publish

When you publish your writing, you share it with others.

- 1 Add Visuals** Visuals can make your writing more interesting and easier to understand. Maybe you will
  - import photographs or illustrations
  - insert computer clip art
  - add graphs, charts, or diagrams
- 2 Present Your Writing** There are a lot of ways to share your finished work. Here are just a few ideas.
  - E-mail it to a friend or family member.
  - Send it to your favorite magazine or publication.
  - Turn it into a chapter for a group book about the topic.
  - Make a video clip of you reading it to add to a group presentation.



#### A Home for the Honeybee

In the wild, honeybee scouts look for places to make hives. They look for openings in hollow tree trunks. The opening needs to be high off the ground. That way the hive will be safe from predators. A hive also needs to be big enough for thousands of bees and all the nectar and pollen they gather. The best hive will also face south so it stays warm.



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## Writing Traits

Good writing is clear, interesting, and easy to follow. To make your writing as good as it can be, check your writing to be sure it has the characteristics, or traits, of good writing.

### Focus and Coherence

Writing is focused when the main idea is clear. It is coherent when all the ideas work together to tell about the same idea. What score can you give your or your partner's writing for focus and coherence? How can you make it better?

	Are the ideas related?	Is the writing complete?
<b>4</b>	<input type="checkbox"/> All of the ideas are about the same topic.	<input type="checkbox"/> There is a beginning and an end. <input type="checkbox"/> All of the details in the middle are important.
<b>3</b>	<input type="checkbox"/> Most of the ideas are about the same topic.	<input type="checkbox"/> There is a beginning and an end. <input type="checkbox"/> Most of the details in the middle are important.
<b>2</b>	<input type="checkbox"/> There are many ideas that don't go together. It is hard to tell what the writing is all about.	<input type="checkbox"/> The writing has a beginning or an end, but it doesn't have both. <input type="checkbox"/> Some of the details in the middle don't belong there.
<b>1</b>	<input type="checkbox"/> The ideas don't go together. I can't tell what the writing is really about.	<input type="checkbox"/> The writing does not have a beginning. <input type="checkbox"/> The writing does not have an end.

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### Development of Ideas

Writing is well-developed when the ideas are interesting and supported by plenty of details. What score can you give your or your partner's writing for development of ideas? What can you add to develop the ideas better?

	Is the writing interesting?	How well do you understand the ideas?
<b>4</b>	<input type="checkbox"/> The writer has thought about the topic carefully. <input type="checkbox"/> The ideas are presented in a very interesting way.	<input type="checkbox"/> The writing answered all of my questions. There were enough details to help me understand.
<b>3</b>	<input type="checkbox"/> The writer has thought about the topic. <input type="checkbox"/> The ideas are presented in an interesting way.	<input type="checkbox"/> The writing answered most of my questions. There were enough details to help me understand.
<b>2</b>	<input type="checkbox"/> The writer doesn't seem to have thought about the topic very much. <input type="checkbox"/> The writing is OK, but not interesting.	<input type="checkbox"/> I have some questions that were not answered.
<b>1</b>	<input type="checkbox"/> The writer doesn't seem to have thought about the topic at all. <input type="checkbox"/> The ideas are presented in a boring way.	<input type="checkbox"/> I have a lot of questions. The writing didn't tell me enough.

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## Writing Traits, *continued*

### Organization

Writing is organized when it is easy to follow. All the ideas make sense together and flow from one idea to the next in an order that fits the writer's purpose.

	Is the whole thing organized?	Does the writing flow?
4	<input type="checkbox"/> The writing is very well-organized. It fits the writer's purpose.	<input type="checkbox"/> The writing is very smooth. Each idea flows into the next one.
3	<input type="checkbox"/> The writing is organized. It fits the writer's purpose.	<input type="checkbox"/> Most of the writing is smooth. There are only a few places where it jumps around.
2	<input type="checkbox"/> The writing is organized, but doesn't fit the writer's purpose.	<input type="checkbox"/> The writing jumps from one idea to another idea, but I can follow it a little.
1	<input type="checkbox"/> The writing is not organized. Maybe the writer forgot to use a chart to plan.	<input type="checkbox"/> I can't follow the ideas at all. I can't tell what the writer wants to say.

Organized



Not organized



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### Voice

Every writer has a special way of saying things, or voice. Readers can always tell who the writer is by the words the writer uses and how the sentences are put together.

	Does the writing sound real?	Do the words fit the purpose and audience?
4	<input type="checkbox"/> The writing shows who the writer is. <input type="checkbox"/> The writer is talking right to me.	<input type="checkbox"/> The writer uses words that really fit the purpose and audience.
3	<input type="checkbox"/> The writing shows who the writer is. <input type="checkbox"/> The writer sounds real.	<input type="checkbox"/> The writer uses good words for the purpose and audience.
2	<input type="checkbox"/> It's hard to tell who the writer is. <input type="checkbox"/> The writer isn't talking to me.	<input type="checkbox"/> The writer uses some words that fit the purpose and audience.
1	<input type="checkbox"/> I can't tell who the writer is. The writer doesn't seem to care.	<input type="checkbox"/> The words don't fit the purpose and audience.

Hello. This is Sonja.



Yes. I know it's you, Sonja. I can tell from your voice!



### Written Conventions

Good writers always follow the rules of grammar, punctuation, and spelling.

	Are the sentences complete?	Is the writing correct?
4	<input type="checkbox"/> Every sentence has a subject and a predicate.	<input type="checkbox"/> All the punctuation, capitalization, and spelling is correct.
3	<input type="checkbox"/> Most of the sentences have a subject and a predicate.	<input type="checkbox"/> Most of the punctuation, spelling, and capitalization is correct.
2	<input type="checkbox"/> Some of the sentences are missing subjects or predicates.	<input type="checkbox"/> The writing has several errors in punctuation and capitalization. Some words are misspelled.
1	<input type="checkbox"/> Several sentences are missing subjects or predicates.	<input type="checkbox"/> There are many errors. The writing is very confusing.

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## Grammar, Usage, Mechanics, and Spelling

### Sentences

A sentence expresses a complete thought.

#### Kinds of Sentences

There are four kinds of sentences.

A **statement** tells something. It ends with a **period**.

Ned is at the mall now.  
He needs a new shirt.

A **question** asks for information. It ends with a **question mark**.

Where can I find the shirts?

#### Kinds of Questions

Some questions ask for "Yes" or "No" answers. They start with words such as **Is, Do, Can, Are, and Will**.

**Do** you have a size 10?  
**Answer:** Yes.  
**Are** these shirts on sale?  
**Answer:** No.

Other questions ask for more information. They start with words such as **Who, What, Where, When, and Why**.

**What** colors do you have?  
**Answer:** We have red and blue.  
**Where** can I try this on?  
**Answer:** You can use this room.

An **exclamation** shows strong feeling. It ends with an **exclamation mark**.

This is such a cool shirt!  
I love it!

A **command** tells you what to do or what not to do. It usually begins with a **verb** and ends with a period.

Please **bring** me a size 10.  
**Don't open** the door yet.

If a command shows strong emotion, it ends with an exclamation mark.

Wait until I come out!



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### Negative Sentences

A negative sentence means "no."

A **negative sentence** uses a **negative word** to say "no."

That is **not** a good color for me.  
I **can't** find the right size.

### Complete Sentences

A complete sentence has two parts.

The **subject** tells whom or what the sentence is about.

My friends buy clothes here.  
The other store has nicer shirts.

The **predicate** tells what the subject is, has, or does.

My friends buy clothes here.  
The other store has nicer shirts.

### Subjects

All the words that tell about a subject is the **complete subject**.

My younger sister loves the toy store.

The **simple subject** is the most important word in the complete subject.

My younger sister loves the toy store.

A **compound subject** has two nouns joined together by the words **and** or **or**.

Terry **and** Brittany never shop at this store.  
My mom **or** my dad always comes with me.

### Predicates

All the words in the predicate is the **complete predicate**.

The stores open today at nine.

The **simple predicate** is the **verb**. It is the most important word in the predicate.

The stores open today at nine.

A **compound predicate** has two or more verbs that tell about the same subject. The verbs are joined by **and** or **or**.

We eat **and** shop at the mall.  
Sometimes we see a movie **or** just talk with our friends.

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Sentences *(continued)*

Compound Sentences

When you join two sentences together, you can make a compound sentence.

Use a comma and the conjunction <b>and</b> to combine two ideas that are alike.	My friends walk to the mall. I go with them. My friends walk to the mall, <b>and</b> I go with them.
Use a comma and the conjunction <b>but</b> to combine two ideas that show a difference.	My friends walk to the mall. I ride my bike. My friends walk to the mall, <b>but</b> I ride my bike.
Use a comma and the conjunction <b>or</b> to show a choice between two ideas.	You can walk to the mall with me. You can ride with Dad. You can walk to the mall with me, <b>or</b> you can ride with Dad.

Complex Sentences

When you join independent and dependent clauses, you can make a complex sentence.

An <b>independent clause</b> expresses a complete thought. It can stand alone as a sentence.	Mom and her friends walk around the mall for exercise.
A <b>dependent clause</b> does not express a complete thought. It is not a sentence.	before it gets busy
To make a <b>complex sentence</b> , join an <b>independent clause</b> with one or more <b>dependent clauses</b> . If the dependent clause comes first, put a <b>comma</b> after it.	<b>Before it gets busy,</b> Mom and her friends walk around the mall for exercise.



Nouns

Nouns name people, animals, places, or things.

Common Nouns and Proper Nouns

There are two kinds of nouns.

A <b>common noun</b> names any person, animal, place, or thing of a certain type.	I know that <b>girl</b> . She rides a <b>horse</b> . I sometimes see her at the <b>park</b> . She walks her <b>dog</b> there.
A <b>proper noun</b> names a particular person, animal, place, or thing.	I know <b>Marissa</b> . I sometimes see her at <b>Hilltop Park</b> . She walks her dog <b>Chase</b> there. Her family is from <b>Dallas, Texas</b> . They live on <b>Crockett Lane</b> .

Abbreviations for State Names in Mailing Addresses

Alabama	AL	Hawaii	HI	Massachusetts	MA	New Mexico	NM	South Dakota	SD
Alaska	AK	Idaho	ID	Michigan	MI	New York	NY	Tennessee	TN
Arizona	AZ	Illinois	IL	Minnesota	MN	North Carolina	NC	Texas	TX
Arkansas	AR	Indiana	IN	Mississippi	MS	North Dakota	ND	Utah	UT
California	CA	Iowa	IA	Missouri	MO	Ohio	OH	Vermont	VT
Colorado	CO	Kansas	KS	Montana	MT	Oklahoma	OK	Virginia	VA
Connecticut	CT	Kentucky	KY	Nebraska	NE	Oregon	OR	Washington	WA
Delaware	DE	Louisiana	LA	Nevada	NV	Pennsylvania	PA	West Virginia	WV
Florida	FL	Maine	ME	New Hampshire	NH	Rhode Island	RI	Wisconsin	WI
Georgia	GA	Maryland	MD	New Jersey	NJ	South Carolina	SC	Wyoming	WY



Nouns *(continued)*

Singular and Plural Count Nouns

Count nouns name things that you can count. A singular count noun shows "one." A plural count noun shows "more than one."

Add <b>-s</b> to most singular count nouns to form the plural count noun.	bicycle → bicycles
Add <b>-es</b> to count nouns that end in <b>x, ch, sh, ss, z,</b> and sometimes <b>o</b> .	tax → taxes bench → benches wish → wishes loss → losses potato → potatoes
For count nouns that end in a consonant plus <b>y</b> , change the <b>y</b> to <b>i</b> and then add <b>-es</b> . For nouns that end in a vowel plus <b>y</b> , just add <b>-s</b> .	berry <i>y</i> → berries family <i>y</i> → families boy → boys day → days
For a few count nouns, use special forms to show the plural.	man → men woman → women foot → feet tooth → teeth child → children



Noncount Nouns

Noncount nouns name things that you cannot count. Noncount nouns have one form for "one" and "more than one."

<b>Weather Words</b>	fog heat lightning thunder rain <b>YES:</b> Thunder and lightning scare my dog. <b>NO:</b> Thunders and lightnings scare my dog.
<b>Food Words</b> Some food items can be counted by using a measurement word such as <b>cup, slice, glass,</b> or <b>head</b> plus the word <b>of</b> . To show the plural form, make the measurement word plural.	bread corn milk rice soup <b>YES:</b> I'm thirsty for <b>milk</b> . I want <b>two glasses of milk</b> . <b>NO:</b> I'm thirsty for milks. I want milks.
<b>Ideas and Feelings</b>	fun help honesty luck work <b>YES:</b> I need <b>help</b> to finish my homework. <b>NO:</b> I need helps to finish my homework.
<b>Category Nouns</b>	clothing equipment mail money time <b>YES:</b> My football <b>equipment</b> is in the car. <b>NO:</b> My football equipments is in the car.
<b>Materials</b>	air gold paper water wood <b>YES:</b> Is the <b>water</b> in this river clean? <b>NO:</b> Is the waters in this river clean?
<b>Activities and Sports</b>	baseball dancing golf singing soccer <b>YES:</b> I played <b>soccer</b> three times this week. <b>NO:</b> I played soccers three times this week.

## Grammar, Usage, Mechanics, and Spelling *continued*

### Nouns *(continued)*

#### Words That Signal Nouns

The articles **a**, **an**, **some**, and **the** help identify a noun. They often appear before count nouns.

Use **a**, **an**, or **some** before a noun to talk about something in general.

Use **an** instead of **a** before a word that begins with a vowel sound.

Do **not** use **a** or **an** before a noncount noun.

Use **the** to talk about something specific.

Do **not** use **the** before the name of:

- a city or state
- most countries
- a language
- a day, month, or most holidays

- a sport or activity
- most businesses
- a person's name

**Some jokes** are funny.  
Do you have a **favorite joke**?  
I have **an uncle** who knows a lot of jokes.  
It is **an event** when my uncle comes to visit.  
He lives about **an hour** away from us.

He drives in ~~a~~ snow, ~~a~~ fog, or ~~a~~ ice to get here.

Uncle Raul is **the** uncle I told you about.  
**The** jokes he tells make me laugh!

Uncle Raul lives in **Dallas**. That's a city in **Texas**.  
He used to live in **Brazil**.  
He speaks **English** and **Spanish**.  
Uncle Raul often visits on **Saturday**. In **February**, he comes up for **President's Day**.  
Sometimes he'll play **soccer** with me.  
Then we go to **Sal's Café** to eat.  
He likes to talk to **Sal**, too.

The words **this**, **that**, **these**, and **those** point out nouns. Like other adjectives, they answer the question "Which one?"

Use **this** or **these** to talk about things that are near you.

Use **that** or **those** to talk about things that are far from you.

**This** book has a lot of photographs.

**Those** books on the shelf are all fiction.

	Near	Far
One thing	this	that
More than one thing	these	those

### Possessive Nouns

A **possessive noun** is the name of an owner. An apostrophe (') is used to show ownership.

For one owner, add **'s** to the **singular noun**.

This is Raul's cap.  
The cap's color is a bright red.

For more than one owner, add just the apostrophe (') to the **plural noun**.

The boys' T-shirts are the same.  
The players' equipment is ready.

For plural nouns that have special forms, add **'s** to the **plural noun**.

Do you like the **children's** uniforms?  
The **men's** scores are the highest.



## Grammar, Usage, Mechanics, and Spelling *continued*

### Pronouns

A pronoun takes the place of a noun or refers to a noun.

#### Pronoun Agreement

When you use a pronoun, be sure you are talking about the right person.

Use a capital **I** to talk about yourself.

I am Jack. I want to find out about Mars.  
Are you interested in Mars, too?



Use **you** to speak to another person.

Use **she** for a girl or a woman.

Julia thinks Mars is a good topic.  
**She** will help write a report about the planet.

Use **he** for a boy or a man.

Jack downloaded some photos.  
**He** added the pictures to the report.

Use **it** for a thing.

The report is almost done.  
**It** will be interesting to read.

Be sure you are talking about the right number of people or things.

Use **you** to talk to two or more people.

Are you prepared for tomorrow?  
Yes, Sam and I are ready. We give a report tomorrow.



Use **we** for yourself and one or more people.

Use **they** for other people or things.

Scott and Tyrone set up the video camera.  
**They** will record each presentation.

### Subject Pronouns

Subject pronouns take the place of the subject in the sentence.

Subject pronouns tell who or what does the action.

**Julia** is a good speaker.  
**She** tells the class about Mars.

**The photos** show the surface of Mars.  
**They** are images from NASA.

Subject Pronouns	
Singular	Plural
I	we
you	you
he, she, it	they

### Object Pronouns

Object pronouns replace a noun that comes after a verb or a preposition.

An **object pronoun** answers the question "What" or "Whom."  
Object pronouns come after a verb or a preposition such as **to**, **for**, **at**, **of**, or **with**.

The class asked **Jack and Julia** about Mars.  
The class asked **them** about Mars.

Jack put **the report** online.  
Jack put **it** online.  
Did you look for **it**?

Object Pronouns	
Singular	Plural
me	us
you	you
him, her, it	them

### Possessive Pronouns

Like a possessive noun, a possessive pronoun tells who or what owns something.

To show that you own something, use **mine**.

I wrote a report about the sun.  
The report about the sun is **mine**.

Use **ours** to show that you and one or more people own something.

**Meg, Bob, and I** drew diagrams.  
The diagrams are **ours**.

Use **yours** to show that something belongs to one or more people you are talking to.

Have you seen my report, Matt?  
Yes, that report is **yours**.

Possessive Pronouns	
Singular	Plural
mine	ours
yours	yours
his, hers	theirs

Use **his** for one boy or man. Use **hers** for one girl or woman.

Here is **Carole's** desk.  
The desk is **hers**.

For two or more people, places, or things, use **theirs**.

**Ross and Clare** made posters.  
The posters are **theirs**.

### Adjectives

An adjective describes, or tells about, a noun.

#### How Adjectives Work

Usually, an **adjective** comes before the noun it tells about. But, an **adjective** can also appear after verbs such as *is, are, look, feel, smell, and taste*.

You can buy **delicious** fruits at the market.

All the fruit looks **fresh**.  
The shoppers are **happy**.



#### Adjectives describe

- what something is like
- the size, color, and shape of something
- what something looks, feels, sounds, or smells like

The market is a **busy** place.

The **round, brown** baskets are filled with fruits and vegetables.

The **shiny** peppers are in one basket. Another basket has **crunchy** cucumbers. The pineapples are **sweet** and **juicy**.

Some **adjectives** tell "how many" or "in what order."

When you don't know the exact number of things, use the adjectives in the chart.

The sellers have **two** baskets of beans.

The **first** basket is near the limes.

When there's a **lot of** sun, the sellers sit in the shade.

Possessive adjectives tell who owns something.

I pick out some oranges. **My** oranges are in the bag.

That basket is **Ryan's**.

**His** basket is full of apples.

**The sellers'** chairs are in the shade.

**Their** chairs are under umbrellas.

If you can count what you see, use:		If you can't count what you see, use:	
many	several	much	not much
a lot of	only a few	a lot of	only a little
few	not any	a little	not any
some	no	some	no

### Adjectives That Compare

Adjectives can help you make a comparison, or show how things are alike or different.

To compare two things, add **-er** to the adjective. You will often use the word **than** in your sentence, too.

This is a **small** pineapple. The guava is **smaller than** the pineapple.



To compare three or more things, add **-est** to the adjective. Always use **the** before the adjective.

The lime is **the smallest** fruit of them all.

For some adjectives, change the spelling before you add **-er** or **-est**.

- If the adjective ends in silent **e**, drop the final **e** and add **-er** or **-est**.

large **er** nice **er**  
larger nicer  
largest nicest

- If the adjective ends in **y**, change the **y** to **i** and add **-er** or **-est**.

pretty **i** crazy **i**  
prettier crazier  
prettiest craziest

- If the adjective has one syllable and ends in one vowel plus one consonant, double the final consonant and add **-er** or **-est**.

big **g** sad **d**  
bigger sadder  
biggest saddest

A few adjectives have special forms for comparing things.

good	bad	little
better	worse	less
best	worst	least

For adjectives with three or more syllables, do not use **-er** or **-est** to compare. Use **more**, **most**, **less**, or **least**.

**YES:** Of all the fruit, the guavas are the **most colorful**.  
**NO:** Of all the fruit, the guavas are the colorfulst.  
**YES:** The oranges are **more delicious** than the pears.  
**NO:** The oranges are deliciouser than the pears.

When you make a comparison, use either **-er** or **more**; or **-est** or **most**. Do **not** use both.

The oranges are the **most** juicy of all the fruits.

### Verbs

Verbs tell what the subject of a sentence is, has, or does. They show if something happened in the past, is happening now, or will happen in the future.

#### Action Verbs

An **action verb** tells what someone or something does.

The children **ride** bikes. They **wear** helmets for safety. They **pedal** as fast as they can.

#### The Verbs *Have* and *Be*

The verb **to have** tells what the subject of a sentence has.

I **have** a bicycle. It **has** twelve gears. My friend Pedro **has** a bicycle, too. Sometimes we **have** races.

Forms of the Verb <i>have</i>
have
has
had

The verb **to be** does not show action. It tells what the subject of a sentence is (a noun) or what it is like (an adjective).

I **am** a fan of bicycle races. Pedro **is** excited about our next race.

Forms of the Verb <i>be</i>	
am	was
are	were
is	

#### Linking Verbs

A few other verbs work like the verb **to be**. They do not show action. They just connect, or link, the subject to a word in the predicate. Some of these verbs are **look, seem, feel, smell, and taste**.

My bicycle **looks** fantastic!

Pedro and I **feel** ready for the race.



### Helping Verbs

A **helping verb** works together with an action verb. A helping verb comes before a **main verb**. Some helping verbs have special meanings.

- Use **can** to tell that someone is able to do something.
- Use **could, may, or might** to tell that something is possible.
- Use **must** to tell that somebody has to do something.
- Use **should** to give an opinion or advice.

Pedro and I **are racing** today. We **will do** our best.

We **can work** as a team.

We **may reach** the finish line first.

We **must pedal** hard to win!

You **should practice** more.

#### Contractions with Verbs

You can put a subject and verb together to make a **contraction**. In a contraction, an apostrophe (') shows where one or more letters have been left out.

**They are** riding fast.  
**They're** riding fast.  
**They're** riding fast.

You can make a contraction with the verbs **am, are, and is**.

Contractions with <i>Be</i>			
I	+ am	=	I'm
you	+ are	=	you're
we	+ are	=	we're
she	+ is	=	she's
where	+ is	=	where's
what	+ is	=	what's

You can make a contraction with the helping verbs **have, has, and will**.

Contractions with <i>Have and Will</i>			
I	+ have	=	I've
you	+ have	=	you've
they	+ have	=	they've
he	+ has	=	he's
I	+ will	=	I'll
it	+ will	=	it'll

In contractions with a verb and **not**, the word **not** is shortened to **n't**.

Contractions with <i>Not</i>			
do	+ not	=	don't
did	+ not	=	didn't
are	+ not	=	aren't
was	+ not	=	wasn't
have	+ not	=	haven't
has	+ not	=	hasn't
could	+ not	=	couldn't
should	+ not	=	shouldn't

The contraction of the verb **can** plus **not** has a special spelling.

can + not = **can't**

## Grammar, Usage, Mechanics, and Spelling *continued*

### Verbs, (continued)

#### Actions in the Present

All action verbs show when the action happens.

Verbs in the **present tense** show

- that the action happens now.

- that the action happens often.

To show the present tense for the subjects **he, she, or it**, add **-s** to the end of most action verbs.

- For verbs that end in **x, ch, sh, ss, or z**, add **-es**.

- For verbs that end in a consonant plus **y**, change the **y** to **i** and then add **-es**. For verbs that end in a vowel plus **y**, just add **-s**.

- For the subjects **I, you, we, or they**, do not add **-s** or **-es**.

The **present progressive** form of a verb tells about an action as it is happening. It uses **am, is, or are** and a main verb. The main verb ends in **-ing**.

Pedro **eats** his breakfast.  
Then he **takes** his bike out of the garage.  
Pedro and I **love** to ride our bikes on weekends.

**Pedro checks** the tires on his bike.  
**He finds** a flat tire!

Pedro **fixes** the tire.  
A pump **pushes** air into it.

"That should do it," he **says** to himself.

He **carries** the pump back into the garage.

I **arrive** at Pedro's house.  
We **coast** down the driveway on our bikes.

We **are pedaling** faster.

I **am passing** Pedro!

He **is following** right behind me.



#### Actions in the Past

Verbs in the **past tense** show that the action happened in the past.

Yesterday, I **looked** for sports on TV.

The past tense form of a **regular verb** ends with **-ed**.

- For most verbs, just add **-ed**.
- For verbs that end in silent **e**, drop the final **e** before you add **-ed**.
- For one-syllable verbs that end in one vowel plus one consonant, double the final consonant before you add **-ed**.
- For verbs that end in **y**, change the **y** to **i** before you add **-ed**. For verbs that end in a vowel plus **y**, just add **-ed**.

I **watched** the race on TV.  
The bikers **arrived** from all different countries.  
They **raced** for several hours.

People **grabbed** their cameras.  
They **snapped** pictures of their favorite racer.

I **studied** the racer from Italy.  
I **stayed** close to the TV.

**Irregular verbs** do not add **-ed** to show the past tense. They have special forms.

The Italian racer **was** fast.  
He **broke** the speed record!

#### Some Irregular Verbs

Present Tense	Past Tense
begin	began
do	did
have	had
make	made
take	took
ride	rode
win	won



## Grammar, Usage, Mechanics, and Spelling *continued*

### Verbs, (continued)

#### Actions in the Future

Verbs in the **future tense** tell what will happen later, or in the future.

Tomorrow, Shelley **will clean** her bike.

To show the future tense, you can

- add the helping verb **will** before the **main verb**.

She **will remove** all the dirt.

- use **am going to, are going to, or is going to** before the **main verb**.

She **is going to remove** all the dirt.  
I **am going to help** her.

If the **main verb** is a form of the verb **to be**, use **be** to form the future tense.

The bike **will be** spotless.  
Shelley **is going to be** pleased!

To make negative sentences in the future tense, put the word **not** just after **will, am, is, or are**.

We **are not** going to stop until the bike shines.  
Pedro **is not** going to believe it.  
Her bike **will not** be a mess any longer.



### Adverbs

An **adverb** tells more about a verb, an adjective, or another adverb.

#### How Adverbs Work

An **adverb** can come before or after a **verb** to tell "how," "where," "when," or "how often."

Josh **walks quickly** to the bus stop. (how)  
He **will travel downtown** on the bus. (where)  
He **will arrive** at school **soon**. (when)  
Josh **never misses** a day of school. (how often)

An **adverb** can make an **adjective** or another adverb stronger.

Josh is **really good** at baseball.  
He plays **very well**.

Some **adverbs** compare actions. Add **-er** to compare two actions. Add **-est** to compare three or more actions.

Josh **runs fast**.  
Josh runs **faster** than his best friend.  
Josh runs the **fastest** of all the players.



A few adverbs have special forms for comparing things.

well → better → best  
badly → worse → worst

If the adverb ends in **-ly**, use **more, most, less, or least** to compare the actions.

Josh drops a ball **less** frequently than the other players.

When you use **adverbs** to make a comparison with **-er, -est**, or with a special form, do not also use **more** or **most**.

Josh jumps **more** higher than I do.  
He is **more** better than I am at catching the ball.

Make sure to use an **adverb** (not an adjective) to tell about a verb.

I do not catch **well** at all.



**Prepositions**

A preposition links a noun or pronoun to other words in a sentence. A preposition is the first word in a prepositional phrase.

**Prepositions**

Some prepositions tell **where** something is.

above	under	beside	in front of	in back of	between
over	below	next to	by	behind	
	beneath	near			

Some prepositions show **direction**.

up	down	through	across	around	into
----	------	---------	--------	--------	------

Some prepositions tell **when something happens**.

before lunch	in 2003	on September 16
during lunch	in September	at four o'clock
after lunch	in the afternoon	from noon to 3:30

Other prepositions have many uses.

about	among	for	to
against	at	from	with
along	except	of	without

**Prepositional Phrases**

A prepositional phrase starts with a preposition and ends with a noun or a pronoun. Use prepositional phrases to add information or details to your writing.

**At our school**, we did many activities **for Earth Day**.  
We picked up the trash **along the fence**.  
Then we planted some flowers **next to it**.



**Capital Letters**

A word that begins with a capital letter is special in some way.

**How to Use Capital Letters**

A word that begins with a capital letter is special in some way.

Use a **capital letter** at the beginning of a sentence.  
**O**ur class is taking an exciting field trip. **W**e are going to an airplane museum.

Always use a capital letter for the pronoun **I**.  
My friends and **I** can't wait!

Use a capital letter for a person's  
• first and last name  
• initials  
• title  
**Matt J. Kelly and Matt Ross** will ride with **Dr. Bye, Magdalena** and I are going with **Mrs. Liu**.

Use a capital letter for the names of  
• the days of the week and their abbreviations  
• the twelve months of the year and their abbreviations

Days of the Week	Months of the Year
<b>S</b> unday	<b>S</b> un.
<b>M</b> onday	<b>M</b> on.
<b>T</b> uesday	<b>T</b> ue.
<b>W</b> ednesday	<b>W</b> ed.
<b>T</b> hursday	<b>T</b> hurs.
<b>F</b> riday	<b>F</b> ri.
<b>S</b> aturday	<b>S</b> at.
	<b>J</b> anuary
	<b>F</b> ebruary
	<b>M</b> arch
	<b>A</b> pril
	<b>M</b> ay
	<b>J</b> une
	<b>J</b> uly
	<b>A</b> ugust
	<b>S</b> eptember
	<b>O</b> ctober
	<b>N</b> ovember
	<b>D</b> ecember

**These months are not abbreviated.**

Use a capital letter for each important word in the names of special days and holidays.  
**E**arth **D**ay **F**ourth of **J**uly **H**anukkah  
**T**hanksgiving

**Capital Letters, (continued)**

**More Ways to Use Capital Letters**

Use a capital letter for each important word in the names of  
• public places, buildings, and organizations  
• streets, cities, and states  
• landforms and bodies of water, continents, and planets and stars

The **W**ilson **A**irplane **M**useum is in the **V**eterans **M**emorial **H**all. It's in the middle of **V**eterans **P**ark, right next to the **P**iney **W**oods **Z**oo.

The museum is on **F**light **A**venue. It is the biggest airplane museum in **F**lorida. It's the biggest in the whole **U**nited **S**tates!

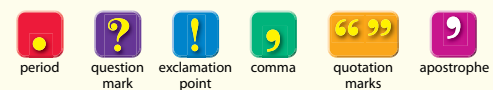
Landforms and Bodies of Water	Continents	Planets and Stars
<b>R</b> ocky <b>M</b> ountains	<b>A</b> frica	<b>E</b> arth
<b>S</b> ahara <b>D</b> esert	<b>A</b> ntarctica	<b>M</b> ars
<b>G</b> rand <b>C</b> anyon	<b>A</b> sia	the <b>B</b> ig <b>D</b> ipper
<b>P</b> acific <b>O</b> cean	<b>A</b> ustralia	the <b>M</b> ilky <b>W</b> ay
<b>C</b> olorado <b>R</b> iver	<b>E</b> urope	
<b>L</b> ake <b>E</b> rie	<b>N</b> orth <b>A</b> merica	
	<b>S</b> outh <b>A</b> merica	

Use a capital letter for the names of countries and adjectives formed from the names of countries.  
My friend Magdalena is **C**hilean.  
She says they don't have a museum like that in **C**hile.

Use a capital letter for each important word in the title of a book, a story, a poem, or a movie.  
We are reading **F**irst **F**light about the Wright brothers. Magdalena wrote a poem about Amelia Earhart. She called it "**V**anished from the **S**ky." What a great title!

**Punctuation Marks**

Punctuation marks make words and sentences easier to understand.



**Period**

Use a **period** at the end of a statement or a command.  
I don't know if I should get a dog or a cat. Please help me decide.

Also use a **period** when you write a decimal, or to separate dollars from cents.  
I saw a cute little dog last week. It only weighed 1.3 pounds. But it costs \$349.99!

Use a **period** after an initial in somebody's name, and after most abbreviations. But, don't use a period after state abbreviations.

The salesperson gave me this business card:

**Kitty B. Perry**  
Downtown Pet Sales  
2456 N. Yale Ave.  
Houston, TX 77074

**TX** is the abbreviation for the state of Texas.

**Question Mark**

Use a **question mark**  
• at the end of a question  
• after a question that comes at the end of a statement.  
Do you want to go to the pet store with me?  
You can go right now, can't you?

**Exclamation Point**

Use an **exclamation point** at the end of a sentence to show strong feelings.  
I'm glad you decided to come!  
This is going to be fun!

## Grammar, Usage, Mechanics, and Spelling *continued*

### Punctuation, *(continued)*

#### Commas

##### Use a **comma**

- when you write large numbers
- to separate three or more things in the same sentence
- before the words **and**, **but**, or **or** in a compound sentence.

There are more than 1,300 pets at this store.  
Should I get a dog, a cat, or a parrot?  
I came to the store last week, and the salesperson showed me some dogs.  
She was very helpful, but I couldn't make a decision.

##### Use a **comma** to set off

- short words like **Oh**, **Yes**, and **Well** that begin a sentence
- someone's exact words

Oh, what a hard decision!  
Well, I'd better choose something.  
The salesperson said, "This little dog wants to go with you."  
I said, "I like it, but I like those cats, too!"

##### Use a **comma** between two or more adjectives that tell about the same noun.

Do I get a big, furry puppy?  
Or do I get a cute, tiny kitten?

##### Use a **comma** in letters

- between the city and state
- between the date and the year
- after the greeting in a friendly letter
- after the closing

177 North Avenue  
New York, NY 10033  
October 3, 2010

Dear Aunt Mia,  
Can you help me? I want a pet, but don't know which is easier to care for, a cat or a dog? I need your advice.

Your niece,  
Becca

#### Quotation Marks

##### Use quotation marks

- to show a speaker's exact words
- to show the exact words from a book or other printed material
- the title of a magazine or newspaper article
- the title of a chapter from a book.

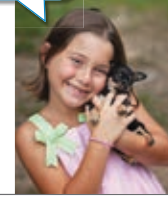
"Ms. Perry, this is the dog for me!" Becca said.

The ad said "friendly puppies" for sale.

I saw the idea in the article "Keeping Your Pet Happy."

Now I'm on the chapter "Working Dogs" in my book.

Ms. Perry, this is the dog for me!



##### Use periods and commas inside quotation marks.

"Many dogs are good with people," Ms. Perry said.  
"You just have to decide if you want to big dog or a little one."

#### Apostrophes

##### Use an **apostrophe** when you write a **possessive noun**.

My **neighbor's** dog is huge.  
The **Smiths'** yard is just big enough for him.

##### Use an **apostrophe** to replace the letter or letters left out in a **contraction**.

**Let's** go back to the pet store.  
**I'll** look some more for the best pet for me.

# Anthology Picture Dictionary

## Picture Dictionary

The definitions are for the words introduced in this book.

### Pronunciation Key

Say the sample word out loud to hear how to say, or pronounce, the symbol.

Symbols for Consonant Sounds	Symbols for Short Vowel Sounds	Symbols for R-controlled Sounds	Symbols for Variant Vowel Sounds
b box	a hat	ar barn	ah father
ch chick	e bell	air chair	aw ball
d dog	i chick	ear ear	oi boy
f fish	o box	ir fire	oo book
g girl	u bus	or corn	ow cow
h hat	<b>Symbols for Long Vowel Sounds</b>	ur girl	ü fruit
j jar	ā cake		<b>Miscellaneous Symbols</b>
k cake	ē key		shun fraction $\frac{1}{2}$
ks box	i bike		chun question
kw queen	ō goat		zhun division
l bell	yü mule		
m mouse			
n pan			
ng ring			
p pan			
r ring			
s bus			
sh fish			
t hat			
th Earth			
th father			
v vase			
w window			
hw whale			
y yarn			
z zipper			
zh treasure			

### Parts of an Entry

The **entry** shows how the word is spelled.

The **pronunciation** shows you how to say the word and how to break it into syllables.

The **picture** helps you understand more about the meaning of the word.

### elevation

(el-u-vā-shun) *noun*

**Elevation** describes how high the land is in an area.



A mountain can have a very high **elevation**.

**part of speech**

The **definition** gives the meaning of the word.

The **sample sentence** uses the word in a way that shows its meaning.

### ability > ancient

### ability

(u-bi-lu-tē) *noun*  
An **ability** is a skill.



This girl has the **ability** to play the flute.

### accelerate

(ik-se-lu-rāt) *verb*  
When someone **accelerates** they move faster.



A racecar **accelerates** to the finish line.

### adaptation

(a-dap-tā-shun) *noun*  
An **adaptation** is a change that a species develops to live in an environment.



A giraffe's long neck and legs are **adaptations** so it can eat from tall trees.

### adventure

(ud-ven-chur) *noun*  
An **adventure** is an exciting experience.



Early explorers had many **adventures**.

### ancestor

(an-ses-tur) *noun*  
An **ancestor** is a family member who lived a long time ago.



The boy is learning about his **ancestors**.

### ancient

(ānt-shunt) *adjective*  
When something is **ancient**, it is very old or it happened in the past.



There are **ancient** buildings all around the world.

a  
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l  
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t  
u  
v  
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x  
y  
z

### archaeologist > behavior

### archaeologist

(ar-ke-ah-lu-jist) *noun*  
An **archaeologist** is someone who studies old buildings and civilizations.



**Archaeologists** discover new information about ancient cultures.

### artifact

(ar-ti-fakt) *noun*  
An **artifact** is something that a human made long ago, such as a tool or a weapon.



**Artifacts** such as these arrowheads were used for hunting.

### astronaut

(as-tru-nawt) *noun*  
An **astronaut** is someone who travels in space.



**Astronauts** wear special equipment so they can breathe in space.

### atmosphere

(at-mu-sfear) *noun*  
The **atmosphere** is the mixture of gases that are all around a planet.



Clouds form in the **atmosphere**.

### available

(u-vā-lu-bul) *adjective*  
When something is **available**, it is ready to take.



Fresh fruit is **available** in summer.

### average

(a-vū-rīj) *noun*  
An **average** is an amount that is usual for a group.



Bears have an **average** of two cubs.

### balance

(ba-luns) *noun*  
When something is in **balance**, it is steady.



If she keeps her **balance**, she will not fall.

### behavior

(bi-hā-vyur) *noun*  
**Behavior** is how a living thing acts.



You can train an animal to learn a new **behavior**.

### belief > chart

### belief

(bu-lēf) *noun*  
A **belief** is a feeling that something is true.



What is your **belief** about hard work?

### benefit

(be-nū-fit) *noun*  
A **benefit** is something helpful.



One **benefit** of living near school is that you can walk there.

### border

(bor-dur) *noun*  
A **border** is an edge or outline.



The frame makes a **border** around the art.

### canyon

(kan-yun) *noun*  
A **canyon** is a very deep valley.



Most **canyons** are formed by rivers.

### capacity

(ku-pa-su-tē) *noun*  
The **capacity** of an object is the most it can hold.



This bucket has a **capacity** of 1 gallon.

### ceremony

(ser-u-mō-nē) *noun*  
A **ceremony** is a special event where something is celebrated.



They exchange rings at their wedding **ceremony**.

### characteristic

(kair-ik-tu-ris-tik) *noun*  
A **characteristic** is a feature.



White marks are a **characteristic** of this snake.

### chart

(chart) *noun*  
A **chart** shows information with numbers, pictures, and symbols.



This **chart** is on a computer screen.

a  
b  
c  
d  
e  
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g  
h  
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j  
k  
l  
m  
n  
o  
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q  
r  
s  
t  
u  
v  
w  
x  
y  
z

**civilization** ► **competition**

**civilization**  
(sì-vu-lu-zā-shun) *noun*  
A **civilization** is an organized society of people.



There have been many advanced **civilizations** around the world.

**coastal**  
(kōs-tul) *adjective*  
**Coastal** areas are sections of land next to an ocean.



Large waves often crash into **coastal** areas.

**colony**  
(kah-lu-nē) *noun*  
A **colony** is a region that another country controls.



These states were **colonies** of England.

**command**  
(ku-mand) *noun*  
A **command** is an order for what someone wants you to do.



The general gave a **command** to his troops.

**compass**  
(kum-pus) *noun*  
A **compass** is a tool with a magnet that can show you which direction is north.



**Compasses** help sailors know where to go.

**communication**  
(ku-myū-nu-kā-shun) *noun*  
**Communication** is the sharing of information.



Cell phones have made **communication** easier.

**competition**  
(kom-pu-ti-shun) *noun*  
A **competition** is a contest.




The runners are in **competition** to win the race.

620


**conservation** ► **courage**

**conservation**  
(kon-sir-vā-shun) *noun*  
**Conservation** means saving or protecting something.




Through **conservation**, many animals' lives have been saved.

**continent**  
(kon-tu-nunt) *noun*  
A **continent** is a large body of land.




Africa is one of the seven **continents** on Earth.

**convert**  
(kun-vurt) *verb*  
When you **convert** something, you change it from one thing into another.




A solar panel **converts** sunlight into electricity.

**constant**  
(kon-stunt) *noun*  
Something that never changes is a **constant**.




The number of days in a week is a **constant**.

**country**  
(kun-tre) *noun*  
A **country** is a nation with its land and people.




Mexico is a **country** in North America.

**contain**  
(kun-tān) *verb*  
To **contain** something is to hold it inside.




This jar **contains** many coins.

**control**  
(kun-tröl) *verb*  
To **control** something is to be in charge of it.



The driver **controls** where the car goes.

**courage**  
(kur-ij) *noun*  
If you have **courage**, you are brave.




It takes **courage** to do challenging things.

621


**craft** ► **decompose**

**craft**  
(kraft) *noun*  
**Crafts** are usually items that you make by hand.




Making dolls by hand is a **craft**.

**culture**  
(kul-chur) *noun*  
People's ideas and way of life make up a **culture**.




Sports can be part of a **culture**.

**current**  
(kur-unt) *adjective*  
When something is **current**, it is happening now.




You can see **current** news stories on TV.

**create**  
(krē-āt) *verb*  
To **create** means to make something new.




The tiles **create** a pattern on the floor.

**custom**  
(dis-kus-tum) *noun*  
A **custom** is the usual way of doing something.




Their **custom** is to eat cereal for breakfast.

**currency**  
(kur-unt-sē) *noun*  
**Currency** is the type of money that is used in an area.



The dollar is the **currency** in the United States.

**decompose**  
(dē-kum-pōz) *verb*  
Something **decomposes** when it breaks down. Living things decompose after they die.




A fallen tree will soon **decompose**.

622


**defend** ► **environment**

**defend**  
(di-fend) *verb*  
When something **defends** itself, it protects itself from danger.




A porcupine can **defend** itself.

**discovery**  
(dis-ku-vu-rē) *noun*  
When you find things, you make a **discovery**.




Her **discovery** is a new germ.

**distance**  
(dis-tuns) *noun*  
**Distance** is the amount of space between two things.




Today, we can fly a long **distance** very quickly.

**electricity**  
(i-lek-tri-su-tē) *noun*  
**Electricity** is a form of energy that can produce light, heat, and power.




People use **electricity** to power their appliances.

**element**  
(e-lu-munt) *noun*  
An **element** is a simple part of something that is bigger.



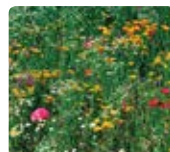
Wind is one **element** in a storm.

**empire**  
(em-pir) *noun*  
An **empire** is a group of countries under one ruler.




As the Roman **Empire** spread, so did the Latin language.

**environment**  
(in-vi-run-munt) *noun*  
An **environment** is the area where something lives.




Plants grow well in a sunny **environment**.

**elevation**  
(el-u-vā-shun) *noun*  
**Elevation** describes how high the land is in an area.



A mountain can have a very high **elevation**.


**Wet environments**, such as rain forests, are also rich in plant life.




623

**equator** ➤ **force**


**equator**  
(i-kwā-tur) *noun*  
The **equator** is an imaginary line that separates the northern and southern hemispheres of the earth.



**experiment**  
(ik-sper-u-munt) *noun*  
An **experiment** is a test that people do to find out how things work.




**feature**  
(fē-chor) *noun*  
A **feature** is part of something.




**exploration**  
(ek-splu-rā-shun) *noun*  
An **exploration** is a search.




**flow**  
(flō) *verb*  
To **flow** is to move freely.




**examine**  
(ig-za-mun) *verb*  
To **examine** something is to look at it closely.




**express**  
(ik-spres) *verb*  
To **express** yourself means to show how you feel.



**force**  
(fors) *noun*  
A **force** is a great power in nature.



**equator**  
The **equator** goes all the way around the earth.



Countries along the **equator** include Ecuador, Colombia, and Brazil.

**Her experiment** on plant growth won first prize.

Sharp teeth are **features** that help sharks hunt.

Astronauts learn about space from their **exploration**.

Water **flows** from a fountain without stopping.

With a hand lens, you can **examine** a butterfly.

A smile can **express** joy.

The **force** of rushing water can break apart roads.

624

**galleon** ➤ **heritage**

**galleon**  
(ga-lē-un) *noun*  
A **galleon** is a large sailing ship that was used hundreds of years ago.



**habitat**  
(ha-bu-tat) *noun*  
A **habitat** is a place where an organism can live and flourish.



**hemisphere**  
(he-mu-sfear) *noun*  
A **hemisphere** is one half of the earth.



**generate**  
(je-nu-rāt) *verb*  
To **generate** something is to make it from other materials.



**height**  
(hit) *noun*  
**Height** is the measurement of how tall someone or something is.



**heritage**  
(hair-u-tij) *noun*  
Your **heritage** is the traditions, ideas, and language that come from your ancestors.



**globe**  
(glōb) *noun*  
A **globe** is a ball with the map of the earth on it.



**globe**  
The students studied the **globe** in their social studies class.

**globe**  
In the 17th century, people would sail **galleons** all around the world.

Some snakes live in a hot, desert **habitat**.

The **equator** separates the two **hemispheres**.

Windmills are used to **generate** electricity.


These boys are different **heights**.

Playing a traditional instrument is part of his Indonesian **heritage**.


625

**hero** ➤ **interact**


**hero**  
(hēr-ō) *noun*  
A **hero** is a person admired by others for being brave.




**imitate**  
(i-mu-tāt) *verb*  
When you **imitate** something, you try to copy it.




**inhabitant**  
(in-ha-bu-tant) *noun*  
An **inhabitant** is a person who lives somewhere.




**humid**  
(hyū-mud) *adjective*  
It is **humid** when there is a lot of moisture in the air.




**inherit**  
(in-hair-ut) *verb*  
To **inherit** means to get things, usually from parents.




**imagine**  
(i-mā-jun) *verb*  
To **imagine** something is to picture it in your mind.



**influence**  
(in-flū-unts) *verb*  
To **influence** someone is to affect that person.



**interact**  
(in-tur-akt) *verb*  
When you **interact**, you communicate in some way.



**hero**  
When the firefighter rescued the child, everyone said he was a **hero**.

Babies will try to **imitate** their mothers' smiles.

These people are **inhabitants** of Japan.

A hot and **humid** greenhouse is good for plants.

Skunks **inherit** their stripes.

Your art shows others what you **imagine**.

Family members can **influence** your interests.

This girl **interacts** with the horse.

626

**interpret** ➤ **language**

**interpret**  
(in-tur-prut) *verb*  
To **interpret** something is to tell what you think it means.



**invade**  
(in-vād) *verb*  
To **invade** something is to take it over without permission.



**investigate**  
(in-ves-tu-gāt) *verb*  
When you **investigate** something, you find out about it.



**landscape**  
(land-skāp) *noun*  
A **landscape** is a large area of land.



**introduce**  
(in-tru-dūs) *verb*  
When people **introduce** themselves, they meet for the first time.



**landform**  
(land-form) *noun*  
A **landform** is the natural shape of a section of land.



**language**  
(lang-gwij) *noun*  
**Language** is a way of sharing ideas.



**interpret**  
Can you **interpret** these signs?

Sometimes people **invade** natural habitats.

The boy **investigates** the cave.

These hills are part of this pretty green **landscape**.

A handshake is a friendly way to **introduce** yourself.


A mountain is a large **landform**.

Writing is a form of **language**.

627

**launch** ▶ **marriage**

**launch** (law-nch) *verb*  
When you **launch** something, you send it up into the air.




This rocket was **launched** into space.

**learn** (lurn) *verb*  
To **learn** is to gain new skills and information.




This calf must **learn** to walk.

**legend** (le-jund) *noun*  
A **legend** explains symbols on a map.




This **legend** shows blue lines as rivers.

**limit** (li-mut) *verb*  
To **limit** something is to stop it after a set time or amount.




Many parents **limit** TV viewing.

**locate** (lō-kāt) *verb*  
To **locate** is to find.




We use maps to **locate** cities and states.

**map** (map) *noun*  
A **map** is a drawing of Earth's surface, or a part of it.



The class looks at the world **map**.

**marriage** (mair-ij) *noun*  
A **marriage** is a wedding ceremony that unites a husband and wife.




They had a lovely **marriage** ceremony.

628

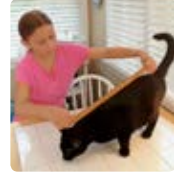
**material** ▶ **modify**

**material** (mu-tear-ē-ul) *noun*  
**Materials** are the small parts that make up something bigger.




Sand is a **material** used in cement.

**measure** (me-zhur) *verb*  
When you **measure** something, you find out its size, weight or amount.




The girl is using a ruler to **measure** her cat.

**merchant** (mur-chunt) *noun*  
A **merchant** is someone who buys or sells items.




The scale **measures** the weight of the orange.

**medium** (mē-dē-um) *noun*  
A **medium** is a form of communication.




Radio is one **medium** for news.

**memory** (mem-rē) *noun*  
**Memory** is the power to recall or remember events.




**Memory** is stored in the brain.

**mission** (mi-shun) *noun*  
A **mission** is a job with a goal.




Their **mission** is to rescue people after an earthquake.

**migration** (mī-grā-shun) *noun*  
During a **migration**, people or animals move from one place to another.



These birds fly south in their yearly **migration**.

**modify** (mah-du-fi) *verb*  
When you **modify** something, you change it.




**Modify** a jar to make a bird feeder.

629


**mold** ▶ **object**

**mold** (mōld) *noun*  
**Mold** is a fungus that grows on old food.




This bread has a lot of **mold** on it.

**musical** (myū-zi-kul) *adjective*  
When someone plays an instrument or sings well, they are **musical**.




It was a very **musical** performance.

**motion** (mō-shun) *noun*  
**Motion** is movement.




A racecar's **motion** is very fast!

**motive** (mō-tiv) *noun*  
A **motive** is a reason for doing something.




One **motive** for studying is to get good grades.

**native** (nā-tiv) *adjective*  
When living things are **native** to an area, they live and grow there naturally.




In many desert regions, the cactus is a **native** plant.

**natural** (nā-chu-rul) *adjective*  
Something is **natural** if it wasn't made by humans.




This is a **natural** rock formation.

**navigation** (nā-vu-gā-shun) *noun*  
**Navigation** is the process of figuring out how to get somewhere.




With careful **navigation** the boat can pass through the icebergs safely.


**object** (ōb-jekt) *noun*  
An **object** is something that isn't alive that you can touch and see.



clock



remote control




ball glove

These are all **objects**.

630


**occasion** ▶ **plain**

**occasion** (u-kā-zhun) *noun*  
An **occasion** is a special event.




The birthday party was a fun **occasion**.

**ocean** (ō-shun) *noun*  
The **ocean** is the salt water that covers almost three-fourths of Earth.




**Oceans** are very large bodies of water.

**official** (u-fi-shul) *adjective*  
When something is **official**, it's approved.




This **official** seal is from the president's office.

**orbit** (or-but) *verb*  
In space, something **orbits** when it moves around a sun, a moon, or a planet in a predictable path.




The planets **orbit** around the sun.

**pattern** (pā-tern) *noun*  
A **pattern** is a design that repeats more than once.




This floor has an interesting **pattern**.

**perform** (pur-form) *verb*  
You **perform** when you put on a show for other people.




These students **perform** for the school.

**physical** (fi-zi-kul) *adjective*  
Something you can see and touch is a **physical** object.



Soccer is a very **physical** sport.

**plain** (plān) *noun*  
A **plain** is a large area of flat, nearly treeless land.




Bison live on America's Great **Plains**.

631


**planet** ➤ **preserve**

**planet**  
(pla-nut) *noun*  
A **planet** is a large body that orbits around the sun or another star.




Saturn is one of the **planets** in our solar system.

**port**  
(port) *noun*  
A **port** is a safe place where boats can dock.




The boats stay in the **port**.

**predator**  
(pre-du-tur) *noun*  
A **predator** is an animal that eats other animals.




Many birds are **predators** to insects.

**plateau**  
(pla-tō) *noun*  
A **plateau** is a high, flat area of land.




The **plateau** rises above the plains.

**pottery**  
(pah-tu-rē) *noun*  
Objects made out of clay are called **pottery**.




This terracotta vase and pitcher are examples of **pottery**.

**population**  
(pah-pyū-lā-shun) *noun*  
The **population** is the number of living things that are in an area.




China has a very large **population** of people.

**power**  
(pow-ur) *noun*  
**Power** is the ability or strength to do something.



The **power** of the earthquake destroyed the building.

**preserve**  
(pri-zurv) *verb*  
To **preserve** something is to keep it safe from harm.




Use scrapbooks to **preserve** old photos.

632

Page 632


**president** ➤ **record**

**president**  
(pre-zu-dunt) *noun*  
A **president** is an elected leader of a country.




George Washington was the first **president** of the United States.

**project**  
(prah-jekt) *noun*  
A **project** is a job or activity.




Building a skyscraper is a huge **project**.

**prey**  
(prä) *noun*  
**Prey** is an animal that is hunted for food.




The rabbit is **prey** for the bobcat.

**principle**  
(prin-su-pul) *noun*  
A **principle** is a rule or law.




Some U.S. laws are based on the **principles** of freedom.

**protect**  
(pru-tekt) *verb*  
You **protect** something when you guard it against harm.




Seat belts help to **protect** people in cars.

**range**  
(ränj) *noun*  
A **range** is a group of things in a certain order.




The Rocky Mountains are a mountain **range**.

**rate**  
(rät) *noun*  
**Rate** is the speed at which something is happening.



Turtles move at a slow **rate**.

**record**  
(re-kurd) *noun*  
A **record** of something is the facts about what happened.



Because many ancient people wrote down information, we have a **record** of their lives.

633

Page 633

**region** ➤ **responsible**

**region**  
(rē-jun) *noun*  
A **region** is an area of land.



Oregon is in the northwest **region** of the country.

**renewable**  
(ri-nū-u-bul) *adjective*  
Something is **renewable** when you can't use up all of it.



Wind is a **renewable** resource.

**resource**  
(rē-sors) *noun*  
A **resource** is something that people need and use.



School supplies are **resources** for students.

**relate**  
(ri-lät) *verb*  
To **relate** two things, think about how they are connected.



You can **relate** these two sports.

**relationship**  
(ri-la-shun-ship) *noun*  
A **relationship** is the way people or things are connected.



Friends have a good **relationship**.

**resistance**  
(ri-zis-tunts) *noun*  
**Resistance** is a slowing force.



Deep snow creates **resistance** when you walk in it.

**response**  
(ri-spons) *noun*  
A **response** is an answer.



These students want to give a **response** to a question.

**responsible**  
(ri-spon-su-bul) *adjective*  
A person who is **responsible** is in charge.




This dad is **responsible** for his son.

634

Page 634


**risk** ➤ **scale**

**risk**  
(risk) *noun*  
**Risk** is the possibility of harm.




Wearing a helmet lowers your **risk** when you ride a bike.

**role**  
(röl) *noun*  
A **role** is a part or a purpose.




Each actor plays an important **role** in the school play.

**route**  
(rüt) *noun*  
A **route** is a path to go someplace.




Do you take the shortest **route** to school?

**ritual**  
(ri-chu-wul) *noun*  
A **ritual** is a special series of events, often done as a ceremony.




Many people have **rituals** that use water.

**rotation**  
(rō-tā-shun) *noun*  
The **rotation** of something is how it turns around its axis.



A globe shows the **rotation** of Earth.

**scale**  
(skäl) *noun*  
A **scale** gives size comparisons.




The **scale** of this map shows that 1 inch is equal to 1 mile.

635

Page 635


**scarce** > **speed**

**scarce** (skairs) *adjective*  
Something is **scarce** if there is not a lot of it.




Water can be very **scarce** in the desert.

**service** (sur-vus) *noun*  
When something is of **service**, it is useful.




A cart is of **service** when you move heavy boxes.

**site** (sit) *noun*  
A **site** is a special place where something happened.




People study archeological **sites** to learn about ancient cultures.

**skill** (skil) *noun*  
A **skill** is the ability that someone has to do something.




It takes a lot of **skill** to play soccer well.

**solve** (solv) *verb*  
To **solve** a problem means to figure it out.




When you **solve** a puzzle, it's done.

**species** (spe-shéz) *noun*  
A **species** is a group of living things that are very similar and can have offspring.



Cats and dogs are different **species**.

**speed** (spéd) *noun*  
**Speed** is how fast something is going.




A racecar travels at a very high **speed**.

636


**spore** > **technology**

**spore** (spor) *noun*  
**Spores** are small, seed-like structures that are made by plants that don't reproduce using flowers.




A fern reproduces by releasing **spores**.

**style** (sti-il) *noun*  
A **style** is a special way of doing something.




These artists have their own **style** of working. She likes to paint and he works in stone.

**surface** (sur-fus) *noun*  
The **surface** of something is its top layer or cover.




A table has a flat **surface**.

**spread** (spred) *verb*  
To **spread** is to cover a wide area.




Flies can **spread** diseases.

**strategy** (stra-tu-jé) *noun*  
A **strategy** is a careful plan.




This girl has a **strategy** for winning the game.

**suggest** (sug-jest) *verb*  
To **suggest** is to give someone an idea.




These colors **suggest** strong heat.

**survival** (sur-vi-vul) *noun*  
**Survival** means living.



**Survival** is difficult in very cold places.

**technology** (tek-nah-lu-jé) *noun*  
**Technology** is the use of science to solve problems.




Doctors rely on **technology**, such as X-ray machines.

637


**threatened** > **valley**

**threatened** (thre-tund) *verb*  
Something is **threatened** when it is in danger.




Because of habitat destruction, many rainforest animals are **threatened**.

**tradition** (tru-di-shun) *noun*  
A **tradition** is a custom or belief shared by a group of people.




It's a **tradition** to dress up to celebrate the Chinese New Year.

**treasure** (tre-zhur) *noun*  
A **treasure** is a collection of jewels, money, or other valuable items.




Gold coins are the **treasure** in this chest.

**tool** (tül) *noun*  
A **tool** is something that helps you do a task.




A hammer is a **tool** that helps you pound nails into wood.

**trade** (träd) *verb*  
To **trade** is to exchange one thing for another.




The friends **trade** toys.

**trait** (träut) *noun*  
A **trait** is a characteristic that distinguishes one thing from something else.




One **trait** of a gazelle is that it can run quickly.

**transport** (trants-port) *verb*  
To **transport** something is to carry it.



Large ships **transport** goods across the ocean.

**valley** (va-lé) *noun*  
A **valley** is a low area of land between two higher areas.




This **valley** has a river running through it.

638


**value** > **weave**

**value** (val-yü) *verb*  
To **value** something is to care about it.




Many people **value** saving money.

**weave** (wäv) *verb*  
When you **weave**, you lace threads, grass, or other materials together in a pattern.




She **weaves** thread into beautiful cloth.

**volunteer** (vah-lun-tear) *noun*  
A **volunteer** is someone who helps out with a task without being paid.



This **volunteer** is giving food to people who need it.

**weave** (wäv) *verb*  
When you **weave**, you lace threads, grass, or other materials together in a pattern.



A tapestry is something people can **weave**. This one was made in Africa.

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# Scope and Sequence

Reading	Grade					
	K	1	2	3	4	5
<b>LITERATURE</b>						
<b>Key Ideas and Details</b>						
Retell or Explain a Story	●	●	●	●	●	●
Analyze Story Elements	●	●	●	●	●	●
Plot	●	●	●	●	●	●
Characters	●	●	●	●	●	●
Setting	●	●	●	●	●	●
Theme, Lesson, or Moral		●	●	●	●	●
Use Reading Strategies	●	●	●	●	●	●
Preview and Make Predictions	●	●	●	●	●	●
Monitor Understanding	●	●	●	●	●	●
Ask and Answer Questions	●	●	●	●	●	●
Summarize Texts	●	●	●	●	●	●
Make Inferences	●	●	●	●	●	●
Visualize	●	●	●	●	●	●
Make Connections	●	●	●	●	●	●
Synthesize: Draw Conclusions			●	●	●	●
Synthesize: Draw Generalizations			●	●	●	●
Relate Ideas	●	●	●	●	●	●
Chronology	●	●	●	●	●	●
Comparison	●	●	●	●	●	●
Cause/Effect		●	●	●	●	●
Goal/Outcome				●	●	●
Problem/Solution					●	●
<b>Craft and Structure</b>						
Determine the Meaning of Words and Phrases in a Text	●	●	●	●	●	●
Identify Elements of Genre	●	●	●	●	●	●
Describe Structure of Stories, Dramas, and Poems			●	●	●	●
Identify Introduction and Conclusion			●	●	●	●
Identify Text Segments: Chapter, Scene, Stanza				●	●	●
Identify Elements of Poetry: Rhyme, Rhythm	●	●	●	●	●	●
Identify Elements of Poetry: Verse, Meter, Line Breaks					●	●
Identify Elements of Drama: List of Characters, Dialogue, Stage Directions					●	●
Compare Drama and Prose			●	●	●	●
Compare Poetry and Prose			●	●	●	●
Identify Author and Illustrator	●	●	●	●	●	●
Identify Narrator		●	●	●	●	●
Identify and Distinguish Points of View			●	●	●	●

Reading, continued	Grade					
	K	1	2	3	4	5
<b>Integration of Knowledge and Ideas</b>						
Analyze Text Elements	●	●	●	●	●	●
Use Information in Illustrations	●	●	●	●	●	●
Connect Text and Oral or Visual Presentation of Story or Versions of a Story	●	●	●	●	●	●
Analyze Visual or Multimedia Elements in a Text		●	●	●	●	●
Compare Ideas or Texts	●	●	●	●	●	●
Compare Fiction and Nonfiction	●	●	●	●	●	●
Compare Characters	●	●	●	●	●	●
Compare Settings	●	●	●	●	●	●
Compare Events	●	●	●	●	●	●
Compare Topics	●	●	●	●	●	●
Compare Themes				●	●	●
<b>Range of Reading and Level of Text Complexity</b>						
Read and Comprehend Literature at and Above Grade Level Complexity	●	●	●	●	●	●
Participate in Shared Reading	●	●	●	●	●	●
Read Independently	●	●	●	●	●	●
<b>INFORMATIONAL TEXT</b>						
<b>Key Ideas and Details</b>						
Retell or Explain a Text	●	●	●	●	●	●
Use Reading Strategies	●	●	●	●	●	●
Preview and Make Predictions	●	●	●	●	●	●
Monitor Understanding	●	●	●	●	●	●
Ask and Answer Questions	●	●	●	●	●	●
Determine Importance: Identify the Topic, Main Idea, and Key Details	●	●	●	●	●	●
Determine Importance: Summarize		●	●	●	●	●
Make Inferences	●	●	●	●	●	●
Visualize	●	●	●	●	●	●
Make Connections	●	●	●	●	●	●
Synthesize: Draw Conclusions			●	●	●	●
Synthesize: Make Generalizations			●	●	●	●
Relate Ideas and Describe Text Structure	●	●	●	●	●	●
Logical Order	●	●	●	●	●	●
Chronology	●	●	●	●	●	●
Comparison		●	●	●	●	●
Cause/Effect		●	●	●	●	●
Problem/Solution, Goal/Outcome		●	●	●	●	●
Compare Text Structure					●	●

# Scope and Sequence, continued

Reading, continued	Grade					
	K	1	2	3	4	5
<b>Craft and Structure</b>						
Determine the Meaning of Words and Phrases in a Text	●	●	●	●	●	●
Identify and Use Text Features	●	●	●	●	●	●
Covers and Title Page	●	●	●	●	●	●
Table of Contents or Electronic Menus	●	●	●		●	
Headings and Subheadings		●	●	●	●	●
Topic Sentence			●	●	●	●
Glossaries and Indexes		●	●	●	●	●
Captions, Labels, Icons, Hyperlinks and Callouts		●	●		●	●
Graphs, Diagrams, Tables, and Maps		●	●		●	●
Sidebars				●	●	●
Distinguish Between Information in Illustrations and Information in Text	●	●	●	●	●	●
Identify Author and Illustrator	●	●	●		●	●
Identify Author's Purpose		●	●		●	●
Distinguish Points of View or Accounts				●	●	●
<b>Integration of Knowledge and Ideas</b>						
Use Information in Illustrations and Media	●	●	●	●	●	●
Interpret Information Presented in Multiple Formats					●	●
Identify and Distinguish Facts and Opinions		●	●	●	●	●
Identify Author's Reasons and Evidence	●	●	●	●	●	●
Explain Connections Within a Text		●	●	●	●	●
Compare Texts	●	●	●	●	●	●
<b>Range of Reading and Level of Text Complexity</b>						
Read and Comprehend Text at and above Grade Level Complexity		●	●	●	●	●
Participate in Shared Reading	●	●	●	●	●	●
Read Independently	●	●	●	●	●	●

Grade

Reading, continued

FOUNDATIONAL SKILLS

Print Concepts

	K	1	2
Understand Directionality of Text	●	●	●
Recognize the Relationship of Letters and Words to Speech	●	●	
Recognize and Name Alphabet Letters	●	●	
Know the Order of the Alphabet	●	●	
Identify Letters	●	●	●
Match Uppercase and Lowercase Letters	●	●	●
Identify a Word	●	●	●
Identify End Punctuation	●	●	●
Identify Title	●	●	●
Hold a Book and Turn the Pages	●	●	●
Identify Sentence Capitalization	●	●	●
Use Page Numbers	●	●	●
Identify Dialogue			●
Identify Indentions of Paragraphs			●



Use **Reach into Phonics** to provide intervention for foundational reading skills in grades 3–5.

Phonological Awareness

Distinguish Long and Short Vowel Sounds	●	●	●
Isolate Words in a Sentence	●	●	●
Identify Syllables	●	●	●
Blend Syllables to Form a Word	●	●	●
Segment a Word into Syllables	●	●	●
Identify Rhyming Words	●	●	●
Generate Rhyming Words	●	●	●
Match Initial, Medial, and Final Sounds	●	●	●
Identify and Isolate Initial, Medial, and Final Sounds	●	●	●
Blend Onset and Rime	●	●	●
Blend Sounds to Form a Word	●	●	●
Segment a Word into Sounds	●	●	●
Manipulate Sounds in Words (Add, Delete, Substitute)	●	●	●

# Scope and Sequence, continued

Reading, continued	Grade					
	K	1	2	3	4	5
<b>Phonics and Word Recognition</b>						
Identify Letter/Sounds and Read Words	●	●	●			
Consonants	●	●	●			
Short Vowels	●	●	●			
Long Vowels	●	●	●			
Consonant Blends and Digraphs	●	●	●			
Vowel Digraphs: <i>ai, ay, ee, ea, ie, igh, oa, ow, oo, ou, ui</i>	●	●	●			
<i>r</i> -Controlled Vowels: <i>ar, or, -ore, er, ir, ur, air, -are, eer, ear</i>		●	●			
Sounds for <i>-y</i> : /ē/, /ī/	●	●	●			
Diphthongs: <i>oi, oy, ou, ow</i>	●	●	●			
Variant Vowels: <i>aw, au, al, all, oo, ew, ea</i>	●	●				
Vowel Patterns: <i>-igh, -old, -alk</i>	●	●	●			
Vowel Patterns: <i>o, i, -ight</i>						●
Schwa						●
Soft <i>c</i>	●	●	●			
Soft <i>g</i>	●	●	●			
Silent Consonants <i>kn, wr, gn, mb</i>	●	●	●			
Plurals <i>-s, -es, -ies</i>		●	●			
Read Words with Spelling Patterns		●	●			
CVCe Word Patterns with <i>a, i, o, u, e</i>	●	●	●			
CV Word Patterns with <i>o, e</i>	●	●	●			
Short and Long Vowels in CVC and CVCe Word Patterns	●	●	●			
CVVC Word Patterns		●	●			
Read Multisyllabic Words		●	●			
Compound Words		●	●			
VCCV Syllable Division ( <i>bas/ket, kit/ten</i> )		●	●			
VCCCV Syllable Division ( <i>hun/dred</i> )		●	●			
VCV Syllable Division ( <i>mu/sic, cab/in</i> )		●	●			
Words with Consonant + <i>le</i>		●	●			
Suffixes		●	●			
Prefixes		●	●			
Inflected Forms		●	●			
Syllable Types: <i>r</i> -Controlled, Consonant + <i>le</i> , Vowel Team, Vowel + Silent <i>e</i>		●	●			
Final Syllables with <i>-tion, -ture, -ent, -ant</i>						●



Use **Reach into Phonics** to provide intervention for foundational reading skills in grades 3–5.



Reading, continued	Grade					
	K	1	2	3	4	5
<b>Phonics and Word Recognition, continued</b>						
Use Decoding Strategies	●	●	●			
Blend Sounds to Decode Words						
Recognize Word Families and Similarly-Spelled Words	●	●	●			
Use Structural Clues		●	●			
Identify Syllable Types		●	●			
Recognize High Frequency Words	●	●	●			
Distinguish Between Similarly-Spelled Words	●	●	●			
Read Irregularly-Spelled Words	●	●	●			
<b>Fluency</b>						
Read with Purpose and Understanding	●	●	●	●	●	●
Read with Accuracy and Appropriate Rate	●	●	●	●	●	●
Use Phrasing		●	●	●	●	●
Read with Expression		●	●	●	●	●
Read with Correct Intonation		●	●	●	●	●
Read Instructional Level Materials Fluently	●	●	●	●	●	●
Use Context to Support Decoding	●	●	●	●	●	●

## Writing

<b>Text Types and Purposes</b>						
Opinion Pieces	●	●	●	●	●	●
Informative/Explanatory Text	●	●	●	●	●	●
Interview			●	●	●	●
Letter or Email		●	●	●	●	●
Report			●	●	●	●
Persuasive Essay				●	●	●
Procedural Text		●	●	●	●	●
Explanatory Text		●	●	●	●	●
Narratives	●	●	●	●	●	●
Story or Account	●	●	●	●	●	●
Character Sketch				●	●	●
Poem		●	●	●	●	●
Tall Tale/Myth/Trickster Tale/Folk Tale			●	●	●	●
Science Fiction Story					●	●
Response Text	●	●	●	●	●	●
Write to Demonstrate Comprehension	●	●	●	●	●	●

# Scope and Sequence, continued

Writing, continued	Grade					
	K	1	2	3	4	5
<b>Writing Skills</b>						
Organization and Purpose	●	●	●	●	●	●
Introduce a Topic	●	●	●	●	●	●
Write a Conclusion	●	●	●	●	●	●
Establish and Follow a Purpose	●	●	●	●	●	●
Identify Context for Formal and Informal English	●	●	●	●	●	●
State Main Ideas and Support with Details		●	●	●	●	●
Introduce and State an Opinion	●	●	●	●	●	●
Supply Reasons and Evidence		●	●	●	●	●
Write Facts, Definitions, and Details	●	●	●	●	●	●
Maintain Point of View					●	●
Use Persuasive Techniques or Language		●	●	●	●	●
Organize Writing	●	●	●	●	●	●
Sequence Events	●	●	●	●	●	●
Fiction			●	●	●	●
Include Dialogue					●	●
Tell About Events and Details	●	●	●	●	●	●
Introduce Characters or a Narrator				●	●	●
Word Choice	●	●	●	●	●	●
Use Signal Words		●	●	●	●	●
Use Concrete Words and Phrases		●	●	●	●	●
Use Sensory Words and Phrases		●	●	●	●	●
Use Figurative Language					●	●
Use Colorful Details to Elaborate				●	●	●
Use Linking Words		●	●	●	●	●
Use Quotations		●	●	●	●	●
Use Precise Language and Vocabulary				●	●	●
Use Your Own Words	●	●	●	●	●	●
Sentence Fluency	●	●	●	●	●	
Connect Ideas				●	●	●
Break Up Long Sentences				●	●	●
Combine Sentences				●	●	●
Vary Sentences		●	●	●	●	●
<b>Production and Distribution of Writing</b>						
Produce Writing for Specific Tasks, Purposes, and Audiences	●	●	●	●	●	●
Prewrite		●	●	●	●	●
Analyze a Model		●	●	●	●	●
Determine the Role, Audience, Form, and Topic		●	●	●	●	●
Organize Ideas		●	●	●	●	●

Writing, continued	Grade					
	K	1	2	3	4	5
<b>Production and Distribution of Writing, continued</b>						
Draft	●	●	●	●	●	●
Use Appropriate Development and Organization		●	●	●	●	●
Use Technology to Produce Writing	●	●	●	●	●	●
Demonstrate Keyboarding Skills					●	●
Revise	●	●	●	●	●	●
Respond to Peer Suggestions	●	●	●	●	●	●
Add, Combine, or Delete Details	●	●	●	●	●	●
Edit and Proofread		●	●	●	●	●
Publish and Present	●	●	●	●	●	●
Use Visuals or Multimedia to Enhance Meaning		●	●	●	●	●
Keep a Portfolio	●	●	●	●	●	●
<b>Writing Traits</b>						
Ideas		●	●	●	●	●
Organization		●	●	●	●	●
Voice		●	●	●	●	●
Word Choice		●	●	●	●	●
Sentence Fluency		●	●	●	●	●
Conventions		●	●	●	●	●
Presentation		●	●	●	●	●
<b>Research to Build and Present Knowledge</b>						
Create Research and Writing Projects	●	●	●	●	●	●
Recall or Gather Information	●	●	●	●	●	●
Choose and Focus a Topic	●	●	●	●	●	●
Develop Research Questions					●	●
Locate Sources of Information		●	●	●	●	●
Evaluate Information					●	●
Find Information in Sources			●	●	●	●
Take and Sort Notes			●	●	●	●
Distinguish Plagiarism from Quoting or Paraphrasing					●	●
Distinguish Relevant from Irrelevant Information		●	●	●	●	●
Integrate Information from Multiple Sources				●	●	●
Provide a List of Sources				●	●	●
Draw Evidence from Text to Support Analysis, Reflection, and Research				●	●	●
<b>Range of Writing</b>						
Write Routinely for a Variety of Tasks, Purposes, and Audiences	●	●	●	●	●	●

# Scope and Sequence, continued

Speaking and Listening	Grade					
	K	1	2	3	4	5
<b>Comprehension and Collaboration</b>						
Engage in Collaborative Discussions	●	●	●	●	●	●
Follow Agreed-Upon Rules	●	●	●	●	●	●
Build on and Connect Others' Idea	●	●	●	●	●	●
Ask for Clarification	●	●	●	●	●	●
Come to Discussions Prepared	●	●	●	●	●	●
Explain and Review Ideas and Understanding	●	●	●	●	●	●
Restate Ideas	●	●	●	●	●	●
Elaborate	●	●	●	●	●	●
Evaluate Information Presented in Diverse Media and Formats	●	●	●	●	●	●
Analyze the Message			●	●	●	●
Identify or Describe Media Elements including Visual, Functional and Auditory Details		●	●	●	●	●
Ask and Answer Questions for Information, Clarification, or Understanding	●	●	●	●	●	●
Identify a Speaker's Reasons and Evidence					●	●
<b>Presentation of Knowledge and Ideas</b>						
Describe with Facts and Details	●	●	●	●	●	●
Tell a Story	●	●	●	●	●	●
Recount an Experience	●	●	●	●	●	●
Report on a Text or Topic	●	●	●	●	●	●
Present an Opinion					●	●
Speak Clearly, at an Appropriate Pace	●	●	●	●	●	●
Organize Ideas					●	●
Add Visual, Audio, or Multimedia Support	●	●	●	●	●	●
Produce Complete Sentences	●	●	●	●	●	●
Adapt Speech to the Context and Task	●	●	●	●	●	●

## Language

<b>Conventions of Standard English</b>						
Print Upper and Lower Case Letters	●	●				
Sentences	●	●	●	●	●	●
Statements, Questions, Exclamations, and Commands	●	●	●	●	●	●
Negative Sentences	●	●	●	●	●	●
Compound Sentences		●	●	●	●	●
Complex Sentences				●	●	●
Complete Subject	●	●	●	●	●	●
Simple Subject	●	●	●	●	●	●
Compound Subject		●	●	●	●	●

Language, continued	Grade					
	K	1	2	3	4	5
<b>Conventions of Standard English, continued</b>						
Complete Predicate	●	●	●	●	●	●
Simple Predicate	●	●	●	●	●	●
Compound Predicate		●	●	●	●	●
Complete Sentences	●	●	●	●	●	●
Fragment/Dependent Clause					●	●
Independent Clause			●	●	●	●
Participial Phrases						●
Run-On Sentences			●	●	●	●
Subject-Verb Agreement	●	●	●		●	●
Parts of Speech	●	●	●	●	●	●
Nouns	●	●	●	●	●	●
Common and Proper		●	●	●	●	●
Count and Noncount		●	●	●	●	●
Plurals	●	●	●	●	●	●
Possessive		●	●	●	●	●
Abstract				●		
Articles/Determiners		●	●	●	●	●
Pronouns		●	●	●	●	●
Subject	●	●	●	●	●	●
Object	●	●	●	●	●	●
Demonstrative			●	●	●	●
Indefinite		●	●	●	●	●
Reflexive			●	●	●	●
Relative					●	
Possessive		●	●	●	●	●
Pronoun Agreement	●	●	●	●	●	●
Adjectives	●	●	●	●	●	●
Comparative and Superlative			●	●	●	●
Relative					●	
Demonstrative	●	●	●	●	●	●
Predicate					●	●
Possessive		●	●	●	●	●
Indefinite		●	●	●	●	
Proper						●
Order within Sentences					●	●

# Scope and Sequence, continued

Language, continued	Grade					
	K	1	2	3	4	5
<b>Conventions of Standard English, continued</b>						
Verbs	●	●	●	●	●	●
Action	●	●	●	●	●	●
Transitive/Intransitive	●	●	●	●	●	●
Linking			●	●	●	●
Modals			●	●	●	●
Helping			●	●	●	●
Present Tense	●	●	●	●	●	●
Past Tense (Regular and Irregular)		●	●	●	●	●
Future Tense		●	●	●	●	●
Present-Perfect Tense						●
Past-Perfect Tense						●
Future-Perfect Tense						●
Progressive Forms		●	●	●	●	●
Contractions		●	●	●	●	●
Adverbs		●	●	●	●	●
Comparative and Superlative			●	●	●	●
Relative					●	●
Adverbial Clauses					●	●
Prepositions	●	●	●	●	●	●
Prepositional Phrases			●	●	●	●
Conjunctions	●	●	●	●	●	●
Coordinating		●	●	●	●	●
Subordinating		●	●	●	●	●
Correlative						●
Interjections						●
Mechanics	●	●	●	●	●	●
Capitalization	●	●	●	●	●	●
End Punctuation	●	●	●	●	●	●
Abbreviations			●	●	●	●
Comma		●	●	●	●	●
Apostrophe			●	●	●	●
Quotation Marks				●	●	●
Underlining or Italics						●
Spelling	●	●	●	●	●	●
High Frequency Words	●	●	●	Use <b>Reach into Phonics</b> for foundational spelling skills in G3–5		
Use Phonetic Knowledge to Spell	●	●	●	Use <b>Reach into Phonics</b> for foundational spelling skills in G3–5		
Consult Reference Materials to Check Spelling		●	●	●	●	●
Use Spelling Patterns	●	●	●	●	●	●

Language, continued	Grade					
	K	1	2	3	4	5
<b>Knowledge of Language</b>						
Compare Formal and Informal Uses of English	●	●	●		●	●
Recognize the Difference Between Spoken and Written English	●	●	●	●	●	
Choose Words and Phrases or Punctuation for Effect				●	●	●
Vary Sentences for Meaning, Interest, and Style		●	●	●	●	●
<b>Vocabulary Acquisition and Use</b>						
Determine Meanings of Unfamiliar and Multiple-Meaning Words	●	●	●	●	●	●
Acquire and Use Academic Vocabulary	●	●	●	●	●	●
Acquire and Use Domain-Specific Vocabulary	●	●	●	●	●	●
Use Inflections and Affixes	●	●	●	●	●	●
Use Context	●	●	●	●	●	●
Use Root Words		●	●	●	●	●
Use Prefixes and Suffixes		●	●	●	●	●
Use Individual Words Within Compound Words		●	●	●	●	●
Use a Glossary, Dictionary, and Thesaurus		●	●	●	●	●
Explore Word Relationships	●	●	●	●	●	●
Categorize Words	●	●	●	●	●	●
Identify Antonyms	●	●	●	●	●	●
Identify Synonyms	●	●	●	●	●	●
Identify Homographs					●	●
Identify Homophones					●	●
Connect Between Words and Their Uses	●	●	●	●	●	●
Distinguish Shades of Meaning	●	●	●	●	●	●
Identify Feeling Words and Sensory Words	●	●	●		●	●
Distinguish Literal from Nonliteral Meanings				●	●	●
Use Analogies					●	●
Figurative and Literary Language					●	●
Explain Similes and Metaphors					●	●
Identify Personification					●	●
Interpret Idioms, Expressions, Dialect, Adages, Proverbs, and Sayings					●	●

# Grade 4 Common Core Standards

## Reading

Strand	Code	Standards Text	Grade 4 Units 1–8 Standards Correlations
<b>Literature</b>			
<b>Key Ideas and Details</b>	<b>CC.4.Rlit.1</b>	(1) Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	<b>Unit 1:</b> SG18, SG19, SG20, SG21; <b>Unit 2:</b> T74, T75, T75a, T76, T80, T81, T82–83, T84–85, T86–87, T88–89, T90, T91, T92–93, T94, T95, T95a, T95b, T96, T96a, T97, SG6, SG7, SG8, SG9, SG12, SG13, SG14, SG15; <b>Unit 3:</b> T166a, T169; <b>Unit 4:</b> T252, T253, T254–255, T256–257, T258, T259, T268, T268a, T269, T270c, T271, T272, T273; <b>Unit 5:</b> T288, T289, T291, T292, T293, T294, T297, T300, T301, T302, T302a, SG8, SG9, SG14, SG15; <b>Unit 6:</b> T356a, T357, T358, T359, T362–363, T364–365, T366–367, T368–369, T378, T378a, T379j; <b>Unit 7:</b> T475b, T476, T476a, T477, T481a, T482, SG20, SG21; <b>Unit 8:</b> T499, T500–501, T502–503, T504–505, T506–507, T509, T510–511, T512, T513, T513a, T514, T514a, T515, T559g
	<b>CC.4.Rlit.2</b>	(2) Determine a theme of a story, drama, or poem from details in the text; summarize the text.	<b>Unit 1:</b> T52, T57b, T58, T58a, T59, SG20, SG21, SG27; <b>Unit 2:</b> SG9, SG15; <b>Unit 3:</b> T143j, T147a, T148, T153, T158, T160, T161, T164, T166a, T167, T170, T173f, T173g, T173h, SG8, SG9, SG12, SG13, SG14, SG15; <b>Unit 4:</b> T260, T262–263, T268, T269, SG21, SG27; <b>Unit 5:</b> T284, T285, T285a, T286, T296, T297, T300, T301, T302, T302a, T303, SG8, SG9, SG14, SG15; <b>Unit 6:</b> T358, T359, T372, T373, T376, T377, SG9, SG14, SG15; <b>Unit 7:</b> T470, T475, T476, T476a, SG21, SG27; <b>Unit 8:</b> T508, T509, T514, T514a, SG9, SG14, SG15
	<b>CC.4.Rlit.3</b>	(3) Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character’s thoughts, words, or actions).	<b>Unit 1:</b> T36, T37, T37a, T38, T38a, T48–49, T50–51, T53, T56, T65a, T65b, T65f, T65g, T65h; <b>Unit 2:</b> T71i, T71o, T71p, T75a, T76, T80, T81, T82–83, T84–85, T86–87, T88–89, T95b, T96, T96a, T97, T97a, T97b, T97c, T97q, T98a, T98b, T98c, T99, T100, T101, T102, T103, T103a, T104, T105, SG8; <b>Unit 3:</b> T143i; <b>Unit 4:</b> T252, T253, T254–255, T256–257, T258, T259; <b>Unit 5:</b> T296, T298–299, T301a; <b>Unit 6:</b> T355a, T356, T356a, T357, T374–375, T376, T377a, T378, T378a, T385g, SG8, SG9; <b>Unit 7:</b> SG26; <b>Unit 8:</b> T500–501, T506–507, T508, T509, T510–511, T512, SG14
<b>Craft and Structure</b>	<b>CC.4.Rlit.4</b>	(4) Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Hercules).	<b>Unit 1:</b> T4, T5, T5a, T6a, T7, T8, T36, T38a; <b>Unit 2:</b> T72, T74, T75, T75a, T76, T106, T107, T108, T108a, T109; <b>Unit 3:</b> SG15; <b>Unit 4:</b> T216, T217, T217a, T218, T218a, T219, T237o, T238, T238c, T240, T246, T247, T247a, T248a, T249, T250, T269q, T270a, T273a, T275a, T275b, T275c, T275d, T275e, T275f, T275g, T270c, T271, T272; <b>Unit 5:</b> T284, T285, T285a, T288, T289, T314, T315, T316a, T317; <b>Unit 6:</b> T354, T355, T355a, T356a, T357, T358, T386, T387, T388a, T389; <b>Unit 7:</b> T426, T427, T428a, T429, T454, T455, T455a, T456a, T457, T458; <b>Unit 8:</b> T492, T493, T494a, T495, T526, T527, T528a, T529, T530, T531
	<b>CC.4.Rlit.5</b>	(5) Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.	<b>Unit 3:</b> T173a, T173b, T173d; <b>Unit 4:</b> T272, T273; <b>Unit 6:</b> T361, T362–363, T364–365, T366–367, T368–369, T374–375, T383a
	<b>CC.4.Rlit.6</b>	(6) Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	<b>Unit 5:</b> T292, T295; <b>Unit 7:</b> T478a, T478b; <b>Unit 8:</b> T540–541, T546–T547, T557a
<b>Integration of Knowledge and Ideas</b>	<b>CC.4.Rlit.7</b>	(7) Make connections between the text of a story or drama and visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.	<b>Unit 3:</b> T153, T156–157, T159, T198a, T198b; <b>Unit 4:</b> T260, T261, T267
	<b>CC.4.Rlit.9</b>	(9) Compare and contrast the treatment of similar themes and topics (e.g. opposition of good and evil) and patterns of events (e.g the quest) in stories, myths, and traditional literature from different cultures.	<b>Unit 2:</b> T90, T91, T92–93, T94, T95, T95a, T97j, T98a, T98b, T99, T100, T102, T103a, T104, T105a, T105b, T105d, T105g, T105h; <b>Unit 6:</b> T379j, T385f, T385g, T385h; <b>Unit 7:</b> T481a, T482; <b>Unit 8:</b> T523a, T559g
<b>Range and Level of Text Complexity</b>	<b>CC.4.Rlit.10</b>	(10) By the end of the year, read and comprehend literature, including stories, dramas, and poetry at the high end of the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	<b>Unit 1:</b> T35r, T37a, T43, T44–45, T46–47, T48–49, T50–51, T53, T54–55, T56, T57, T63a, T64a, T65, SG18, SG19, SG20, SG21, SG24, SG25, SG26, SG27; <b>Unit 2:</b> T71j, T91, T92–93, T94, T95, T97j, SG6, SG7, SG8, SG9, SG12, SG13, SG14, SG15; <b>Unit 3:</b> T143j, T153, T154–155, T156–157, T158, T159, T160, T161, T162–163, T164, T165, T165a, T167j, T168c, T169, T170, T173r, SG6, SG7, SG8, SG9; <b>Unit 4:</b> T245r, T247, T247a, T248a, T249, T250, T251, T269j, SG18, SG19, SG20, SG21, SG24, SG25, SG26, SG27; <b>Unit 5:</b> T281j, T284, T285a, T286, SG6, SG7, SG8, SG9, SG12, SG13, SG14, SG15; <b>Unit 6:</b> T351j, SG6, SG7, SG8, SG9, SG12, SG13, SG14, SG15; <b>Unit 7:</b> T453r, T454, T455, T455a, T456, T456a, T457, T458, T459, T460, T461, T462–463, T464–465, T466–467, T468–469, T470, T471, T472–473, T474, T475a, SG18, SG19, SG20, SG21, SG24, SG25, SG26, SG27; <b>Unit 8:</b> T489j, T493a, T494, T494a, T496, T497, T499, T500–501, T502–503, T504–505, T506–507, T508, T509, T510–511, T512, T513, T513a, T549h, T550a, T550b, T551, T552–553, T554–555, T556, T557, T557a, T558, SG6, SG7, SG8, SG9, SG12, SG13, SG14, SG15



## Reading, continued

Search for activities that meet each  
Common Core Standard. [NGReach.com](https://www.ngrach.com)



Strand	Code	Standards Text	Grade 4 Units 1–8 Standards Correlations
<b>Informational Text</b>			
<b>Key Ideas and Details</b>	<b>CC.4.Rinf.1</b>	<b>(1)</b> Refer to details and examples in a text when explaining what the texts says and when drawing inferences from the text.	<b>Unit 1:</b> T1i, TT4, T5, T5a, T6, T10, T12–13, T14–15, T16–17, T18–19, T21, T22–23, T24–25, T26a, T27, T28a, T28b, T29, T30, T31, T32, T59j, T60, T60a, T60b, SG14; <b>Unit 2:</b> T106, T107, T107a, T108, T112, T114–115, T116–117, T118–119, T120–121, T123, T124–125, T126–127, T128, T128a, T129, T129f, T129o, T130a, T130b, SG4, SG5, SG18, SG19, SG20, SG21, SG24, SG25, SG26, SG27; <b>Unit 3:</b> T199, T202–203, T205a, T205b, T205d, T205f, T205g, SG10, SG11; <b>Unit 4:</b> T223, T224–225, T226–227, T228–229, T230–231, T236, T236a, T237, T237o, T238, T238a, T238b, T245a, T245b, T245d, SG14, SG15; <b>Unit 5:</b> T305, T306–307, T308–309, T310, T311, T313a, T313b, T313c, T313d, T315a, T316, T318, T319, T321, T322–323, T324–325, T326–327, T330, T331, T332–333, T334–335, T336, T336a, T339, T340, T341, T342, T343, T345a, T345b, T345d, SG10, SG11, SG20, SG21, SG22, SG23, SG26, SG27; <b>Unit 6:</b> T380a, T380b, T381, T382, T383, T385d, T390, T391, T392, T393, T394–395, T396–397, T398–399, T400–401, T402, T403, T404, T405, T406, T407, T408, T409o, T410a, T410b, T410c, T411, T412–413, T417a, T417b, T417f, T417g, T417h, SG18, SG19, SG20, SG21, SG24, SG25, SG26, SG27; <b>Unit 7:</b> T432, T433, T434–435, T436–437, T438, T439, T444a, T445, T446a, T446b, T446c, T447, T450, T451, T451a, T452, T453a, T453b, T462–463, T464–465, T466–467, T468–469, T480, T481, T481a, T482, SG10, SG11, SG14; <b>Unit 8:</b> T499, T500–501, T502–503, T504–505, T506–507, T516a, T516b, T516c, T518–519, T520–521, T522, T523, T525a, T525b, T525g, T527a, T528, T533, T534–535, T536–537, T548, T548a, T549, T551, T552–553, T554–555, T556, T557, T559g
	<b>CC.4.Rinf.2</b>	<b>(2)</b> Determine the main idea of a text and explain how it is supported by key details; summarize the text.	<b>Unit 1:</b> T5, T5a, T6, T14–15, T16–17, T18–19, T21, T22–23, T24–25, T26a, T27, T29, T30, T60, T60a, T60b, SG8, SG9, SG10, SG11, SG14, SG15; <b>Unit 2:</b> T107a, T108, T113, T116–117, T118–119, T120–121, T124–125, T126–127, T128a, SG16, SG17, SG20, SG21, SG27; <b>Unit 3:</b> T174, T175a, T176, T181, T182–183, T184–185, T186–187, T188–189, T190, T192–193, T194–195, T196, T196a, T197, T205a, T205b, T205d, T205f, T205g, SG20, SG21, SG27; <b>Unit 4:</b> SG9, SG15; <b>Unit 5:</b> T324–325, T326–327, T328–329, T330, T336a, T341, T342, T343, SG21, SG27; <b>Unit 6:</b> T390, T391, T392, T393, T394–395, T396–397, T398–399, T400–401, T402, T403, T406, T408, SG18, SG19, SG20, SG21, SG22, SG23, SG27; <b>Unit 7:</b> T440, T441, T442, T453f, T453g, SG9, SG15; <b>Unit 8:</b> T525a, T525b, T538, SG16, SG17, SG21, SG26, SG27
	<b>CC.4.Rinf.3</b>	<b>(3)</b> Explain events, procedures, ideas, and concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in a text.	<b>Unit 1:</b> T1i; <b>Unit 2:</b> T105r, T129f, SG22, SG23; <b>Unit 3:</b> SG16, SG17; <b>Unit 4:</b> T213j; <b>Unit 5:</b> T306–307, T310, T311, T313d, T313f, T313g, T313h, T337o, T338a, T338b, T345a, T345d, T345f, T345g, SG26, SG27; <b>Unit 6:</b> T392, T393, T394–395, T396–397, T398–399, T400–401, T402, T403, T409h; <b>Unit 7:</b> T446a, T446b, T477j, SG14, SG22, SG23
<b>Craft and Structure</b>	<b>CC.4.Rinf.4</b>	<b>(4)</b> Determine the meaning of general academic and domain-specific words and phrases encountered in a text relevant to a grade 4 topic or subject area.	<b>Unit 1:</b> T4, T5, T5a, T6, T6a, T7, T36, T38a, T39, T40, T41, SG16, SG17; <b>Unit 2:</b> T74, T75, T76, T97q, T98, T98c, T99, T105c, T105e, T106, T107, T108, T108a, T109, SG10, SG11; <b>Unit 3:</b> T174, T175, T175a, T176, T176a, T177, T190, T191, T205d, T205e; <b>Unit 4:</b> T216, T217, T218a, T219, T237o, T238, T238c, T245a, T245b, T245c, T245e, T245h, T246, T247, T247a, T248a, T249, T250, T269q, T270a, T270c, T271, SG16, SG17; <b>Unit 5:</b> T284, T285, T285a, T286, T287, T314, T315, T316a, T317, T344; <b>Unit 6:</b> T354, T355, T355a, T356a, T357, T358, T386, T387, T388a, T389; <b>Unit 7:</b> T426, T427, T428a, T429, T453d, T453h, T454, T455, T456a, T458, SG4, SG5; <b>Unit 8:</b> T492, T493, T494a, T495, T496, T526, T527, T528a, T529, T549o, T550, T550c, T559a, T559b, T559c, T559d, T559f, T559h
	<b>CC.4.Rinf.5</b>	<b>(5)</b> Describe the overall structure (e.g. chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.	<b>Unit 1:</b> T35a, T35b, T35d, T35f, T35g, SG4, SG5, SG22, SG23; <b>Unit 2:</b> T137a, T137b, T137d; <b>Unit 4:</b> T217, T217a, T223, T224–225, T226–227, T228–229, T230–231, T233, T234, T236a, SG8, SG14, SG20, SG22, SG23; <b>Unit 5:</b> T305, T306–307, T308–309, T310, T311, T315a, T316, T336a, T343a, T345, T345a, T345b, T345d, T345f, T345g, T345h, SG20; <b>Unit 6:</b> T383a, T387a, T388, SG17, SG20; <b>Unit 7:</b> T427a, SG8; <b>Unit 8:</b> T540–541, T546–547, SG4, SG5, SG8, SG10, SG11
	<b>CC.4.Rinf.6</b>	<b>(6)</b> Compare and contrast a firsthand and secondhand account of the same event or topic; describe the difference in focus and the information provided.	<b>Unit 6:</b> SG4, SG5; <b>Unit 7:</b> T483a, T483b, T483f, T483g
<b>Integration of Knowledge and Ideas</b>	<b>CC.4.Rinf.7</b>	<b>(7)</b> Interpret information presented visually, orally or quantitatively (e.g. in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to understanding a print or digital text.	<b>Unit 1:</b> T1i, T2, T3, T27h, T59i, T59j; <b>Unit 2:</b> T72, T73, T113, T114–115, T116–117, T120–121, T122; <b>Unit 3:</b> T181, T182–183, T184–185, T186–187, T188–189, T190, T191, T198a, T198b, T200–201, T203a, T204a, SG22, SG23, SG26; <b>Unit 4:</b> T213i, T214, T215, T223, T224–225, T226–227, T232, T233, T234, T235, T236a, T237, T237h, T245r, SG4, SG5, SG10, SG11; <b>Unit 5:</b> T281j, T282, T283, T303i, T313r, T338c, T340, T341, T342, SG16, SG17; <b>Unit 6:</b> T351j, T380c, T382, T383, T385a, T385b, T385r, T390, T392, T394–395, T396–397, T398–399, T402, T415a, SG10, SG11; <b>Unit 7:</b> T432, T433, T434–435, T436–437, T438, T439, T441, T442, T443, SG16, SG17; <b>Unit 8:</b> T490, T491, SG22, SG23
	<b>CC.4.Rinf.8</b>	<b>(8)</b> Explain how an author uses reasons and evidence to support particular points in a text.	<b>Unit 2:</b> T137a, T137b, T137d, T137f, T137g, T137h; <b>Unit 3:</b> SG4, SG5; <b>Unit 4:</b> T238a, T238b, T240, T241, T242, T243a, T244, T245a, T245b, T245d, T245f, T245g, T245h; <b>Unit 5:</b> T313a, T313b; <b>Unit 7:</b> T448, T449, T453a, T453b, T453d, T453g; <b>Unit 8:</b> T516a, T516b
	<b>CC.4.Rinf.9</b>	<b>(9)</b> Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.	<b>Unit 2:</b> T135a, T136; <b>Unit 5:</b> T303j, SG4, SG5; <b>Unit 6:</b> T385r, T409, T417f, T417g, T417h; <b>Unit 7:</b> T423o, T423p, T445a, T445b, T445h, T478b; <b>Unit 8:</b> T523a, T525d, T525g, T549a, T549b, T559f, T559g

# Grade 4 Common Core Standards

## Reading, continued

Strand	Code	Standards Text	Grade 4 Units 1–8 Standards Correlations
Range and Level of Text Complexity	CC.4.Rinf.10	(10) By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	<b>Unit 1:</b> T1i, T7, T8, T11, T14–15, T16–17, T18–19, T27h, T27o, T28a, T28b, T29, T30, T31, T32, T33, T33a, T34, T34a, T40, T41, T59j, T60c, T61, T62, T63a, T64a, T65, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG22, SG23; <b>Unit 2:</b> T97j, T105r, T109, T110, T111, T129f, T130c, T131, SG4, SG5, SG10, SG11, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 3:</b> T167j, T173r, T177, T178, T181, T182–183, T184–185, T186–187, T188–189, T191, T192–193, T194–195, T197h, SG4, SG5, SG10, SG11, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 4:</b> T213j, T219, T220, T221, T223, T224–225, T226–227, T228–229, T230–231, T232, T233, T234, T235, T236, T236a, T237, T245r, SG4, SG5, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG22, SG23; <b>Unit 5:</b> T303j, T303q, T304, T305, T306–307, T308–309, T310, T311, T311a, T312, T312a, T313, T313r, T337h, SG4, SG5, SG10, SG11, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 6:</b> T381, T382, T383, T385r, T409h, T410c, T411, T412–413, SG4, SG5, SG10, SG11, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 7:</b> T423j, T428a, T429, T430, T431, T443a, T444, T444a, T445, T445h, T477j, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG22, SG23; <b>Unit 8:</b> T515j, T517, T518–519, T520–521, T522, T523, T525r, T530, T531, T533, T534–535, T536–537, T539, T540–541, T542–543, T544–545, T546–547, T549h, SG4, SG5, SG10, SG11, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27
Foundational Skills			
Phonics and Word Recognition	CC.4.Rfou.3	(3) Know and apply grade-level phonics and word analysis skills in decoding words.	<b>Unit 1:</b> T1i, T1j, T1k, T27h, T27i, T27j, T27o, T28, T28c, T35d, T35e, T35r, T35s, T59j, T59k, T59l; <b>Unit 2:</b> T71j, T71k, T97j, T97k, T105r, T105s, T129f, T129i, T129j, T129o, T130, T130c, T137c, T137e; <b>Unit 3:</b> T143j, T143k, T143l, T167j, T173r, T197h, T197j; <b>Unit 4:</b> T213j, T213k, T213l, T237h, T237i, T237j, T245r, T245s, T269j, T269k, T269l; <b>Unit 5:</b> T281j, T281k, T303j, T303k, T313r, T313s, T337h; <b>Unit 6:</b> T351j, T351k, T379j, T379k, T379l, T379q, T380, T380c, T381, T385c, T385s, T385t, T409i, T409j, T409o, T410, T410c, T414–415, T417c, T417e; <b>Unit 7:</b> T423j, T423k, T423l, T445h, T445i, T445j, T453r, T453s, T453t, T477j, T477k, T477l, T477q, T478, T478c, T483c, T483e; <b>Unit 8:</b> T489j, T489k, T515j, T515k, T525r, T525s, T549h, T549i, T549o, T550, T550c, T559c, T559e
	CC.4.Rfou.3.a	(a) Use combined knowledge of all letter-sounds correspondences, syllabication patterns, and morphology (e.g. roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.	<b>Unit 1:</b> T1i, T1j, T27h, T27i, T27j, T27o, T28, T28c, T35c, T35e, T35r, T35s, T35t, T37a, T40, T59j, T59k, T59l; <b>Unit 2:</b> T71j, T71k, T97j, T97k, T105r, T105s, T129f, T129i, T129j, T129o, T130c, T137c, T137e; <b>Unit 3:</b> T143j, T143k, T167j, T167k, T167l, T173r, T173s, T173t, T197h, T197i, T205c; <b>Unit 4:</b> T213j, T213k, T213l, T237h, T237i, T237j, T245r, T245s, T245t, T269j, T269k, T269l; <b>Unit 5:</b> T281j, T281k, T281l, T303j, T303k, T313r, T313s, T337h; <b>Unit 6:</b> T351j, T351k, T379j, T379k, T379l, T379q, T380, T380c, T381, T385c, T385e, T385r, T385s, T385t, T409h, T409i, T409j, T409o, T410, T410c, T414–415, T417c, T417e; <b>Unit 7:</b> T423j, T423k, T423l, T445h, T445i, T445j, T453r, T453s, T453t, T477j, T477k, T477l, T477q, T478, T478c, T483c, T483e; <b>Unit 8:</b> T489j, T489k, T515j, T515k, T525r, T525s, T549h, T549i, T549o, T550, T550c, T559c, T559e
Fluency	CC.4.Rfou.4	(4) Read with sufficient accuracy and fluency to support comprehension.	<b>Unit 1:</b> T1i, T5a, T8, T14–15, T21, T27h, T28a, T29, T34, T35b, T35r, T37a, T40, T44–45, T53, T61, T64, T65b; <b>Unit 2:</b> T71j, T75a, T81, T82–83, T99, T104, T104a, T105a, T105b, T105r, T107a, T110, T129o, T130a, T131, T136, T137b; <b>Unit 3:</b> T147a, T154–155, T161, T169, T173r, T175a, T178, T182–183, T198a, T199, T203a, T205b; <b>Unit 4:</b> T213j, T217, T217a, T220, T223, T224–225, T232, T233, T234, T235, T236, T236a, T237, T238a, T239, T241, T243a, T245b, T245r, T247a, T250, T253, T254–255, T270a, T270b, T271, T273a, T275b; <b>Unit 5:</b> T281j, T285a, T288, T292, T297, T304a, T305, T312, T313b, T313r, T315a, T318, T322–323, T331, T338a, T339, T345b; <b>Unit 6:</b> T351j, T355a, T358, T361, T362–363, T364–365, T374–375, T376, T380a, T380b, T381, T384, T385b, T385r, T387a, T390, T393, T394–395, T405, T410a, T410b, T411, T416, T417b; <b>Unit 7:</b> T423j, T427a, T430, T434–435, T441, T446a, T447, T452, T453b, T453r, T455a, T458, T462–463, T471, T478a, T479, T482, T483b; <b>Unit 8:</b> T489j, T493a, T496, T500–501, T509, T516a, T517, T524, T525b, T525r, T527a, T530, T534–535, T539, T549o, T550, T550a, T551, T558, T559b
	CC.4.Rfou.4.a	(a) Read on-level text with purpose and understanding.	<b>Unit 1:</b> T14–15, T21, T29, T44–45, T53, T60a, T61; <b>Unit 2:</b> T81, T82–83, T84–85, T86–87, T88–89, T90, T91, T92–93, T94, T95, T98, T98a, T99, T100, T101, T102, T103, T112, T114–115, T116–117, T118–119, T120–121, T123, T124–125, T126–127, T131, T132–133, T134–135; <b>Unit 3:</b> T154–155, T161, T182–183, T191, T198a, T199; <b>Unit 4:</b> T223, T224–225, T226–227, T228–229, T230–231, T238c, T239, T240, T241, T253, T254–255, T260, T261, T262–263, T264–265, T266, T267, T270c, T271, T272, T273; <b>Unit 5:</b> T292, T297, T305, T322–323, T331, T339; <b>Unit 6:</b> T361, T364–365, T368–369, T374–375, T376, T381, T393, T394–395, T396–397, T398–399, T400–401, T402, T404, T405, T406, T410c, T411, T412–413, T414–415; <b>Unit 7:</b> T434–435, T441, T447, T462–463, T471, T479, T482; <b>Unit 8:</b> T500–501, T509, T517, T534–535, T539, T551
	CC.4.Rfou.4.b	(b) Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.	<b>Unit 1:</b> T1i, T14–15, T21, T26a, T35r, T44–45, T53, T59; <b>Unit 2:</b> T71j, T81, T82–83, T90, T91, T97, T105r, T112, T114–115, T129; <b>Unit 3:</b> T143j, T167, T171a, T173b, T182–183, T197; <b>Unit 4:</b> T213j, T236a, T245r, T269i, T268a, T269; <b>Unit 5:</b> T281j, T292, T297, T302a, T313r, T322–323, T331, T337; <b>Unit 6:</b> T351i, T362–363, T364–365, T368–369, T374–375, T376, T379, T385r, T393, T394–395, T405, T409; <b>Unit 7:</b> T423j, T434–435, T441, T445, T453r, T462–463, T471, T477; <b>Unit 8:</b> T489j, T500–501, T509, T515, T525r, T534–535, T539, T549
	CC.4.Rfou.4.c	(c) Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	<b>Unit 1:</b> T1i, T35r, T59j; <b>Unit 2:</b> T71j, T97j, T105r, T129f; <b>Unit 3:</b> T143j, T167j, T173r, T173t, T197h; <b>Unit 4:</b> T213j, T237h, T245r, T269j; <b>Unit 5:</b> T281j, T303j, T337h; <b>Unit 6:</b> T351j, T379j, T385r, T409h; <b>Unit 7:</b> T423j, T445h, T453r, T477j; <b>Unit 8:</b> T489j, T515j, T525r, T549h

# Writing

Strand	Code	Standards Text	Grade 4 Units 1–8 Standards Correlations	
Text Types and Purposes	CC.4.W.1	(1) Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	<b>Unit 1:</b> T35r, T58; <b>Unit 2:</b> T96, T97, T105d, T137d; <b>Unit 3:</b> T166, T171, T202–203; <b>Unit 4:</b> T237m, T237n, T238b, T245j, T245k, T281; <b>Unit 5:</b> T313q, T337m, T337n, T346, T347, T348, T349; <b>Unit 7:</b> T445g; <b>Unit 8:</b> T515i, T515o, T515p, T525i, T525j, T525k, T525l, T560, T561, T562, T563	
	CC.4.W.1.a	(2) Introduce the topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer’s purpose.	<b>Unit 1:</b> T35q; <b>Unit 2:</b> T137d; <b>Unit 4:</b> T237m, T237n, T245j, T245k; <b>Unit 5:</b> T337m, T337n, T346, T347, T348, T349; <b>Unit 7:</b> T445g; <b>Unit 8:</b> T525i, T525j, T525k, T525l, T560, T561	
	CC.4.W.1.b	(b) Provide reasons that are supported by facts and details.	<b>Unit 1:</b> T35q; <b>Unit 2:</b> T96, T97, T105d, T137d; <b>Unit 3:</b> T171, T202–203; <b>Unit 4:</b> T237m, T237n, T245i, T245j, T245k; <b>Unit 5:</b> T346, T347, T348, T349; <b>Unit 8:</b> T515o, T515p, T525k, T525l, T560, T561, T562, T563	
	CC.4.W.1.c	(c) Link opinions and reasons using words and phrases (e.g. for instance, in order to, in addition).	<b>Unit 1:</b> T35q; <b>Unit 2:</b> T137d; <b>Unit 4:</b> T237m, T237n, T245i, T245j, T245k; <b>Unit 5:</b> T346, T347, T348, T349; <b>Unit 8:</b> T515i, T525k, T525l, T560, T561, T562, T563	
	CC.4.W.1.d	(d) Provide a concluding statement or section related to the opinion presented.	<b>Unit 5:</b> T337m, T337n, T347, T348; <b>Unit 8:</b> T562, T563	
	CC.4.W.2	(2) Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	<b>Unit 1:</b> T27g, T27m, T27n, T35, T35i, T35j, T35k, T35l, T35q, T35w, T35x, T59i, T66, T67, T68, T69; <b>Unit 2:</b> T71i, T105q, T129e, T139; <b>Unit 3:</b> T148, T176, T178, T179, T197m, T197n; <b>Unit 4:</b> T213i, T237g, T245q; <b>Unit 5:</b> T303i, T303j, T313i, T313j, T313k, T313l, T337g, T345; <b>Unit 6:</b> T379i; <b>Unit 7:</b> T423i, T423o, T423p, T445a, T445b, T453i, T453j, T453k, T453l; <b>Unit 8:</b> T525q, T549g	
	CC.4.W.2.a	(a) Introduce a topic clearly and group related information together in paragraphs and sections; include formatting (e.g headings), illustrations, and multimedia when useful to aiding comprehension.	<b>Unit 1:</b> T59j; <b>Unit 2:</b> T129m, T129n, T138; <b>Unit 3:</b> T206–207, T208; <b>Unit 4:</b> T237g, T269i; <b>Unit 5:</b> T303o, T303p, T313j, T313k, T313l, T346, T347; <b>Unit 7:</b> T423o, T423p, T445a, T445b, T453j, T453k, T453l	
	CC.4.W.2.b	(b) Develop the topic using facts, definitions, concrete details, quotations, or other information and examples related to the topic.	<b>Unit 1:</b> T35i, T35j, T35k, T35l, T35q, T35w, T35x, T66, T67, T68, T69; <b>Unit 2:</b> T138, T139, T140, T141; <b>Unit 3:</b> T197m, T197n, T208; <b>Unit 4:</b> T213i; <b>Unit 5:</b> T303o, T303p, T313i, T313j, T313q; <b>Unit 6:</b> T379i; <b>Unit 7:</b> T445a, T453j;	
	CC.4.W.2.c	(c) Link ideas within categories of information using words or phrases (e.g. another, for example, also, because).	<b>Unit 1:</b> T35w, T35x; <b>Unit 3:</b> T143o, T143p	
	CC.4.W.2.d	(d) Use precise language and domain-specific vocabulary to inform about or explain the topic.	<b>Unit 1:</b> T35r; <b>Unit 2:</b> T71j; <b>Unit 4:</b> T267a, T268, T268a, T269; <b>Unit 8:</b> T489o, T489p, T525q, T549h	
	CC.4.W.2.e	(e) Provide a concluding statement or section related to the information or explanation offered.	<b>Unit 5:</b> T303i, T313q, T313r; <b>Unit 7:</b> T445b	
	CC.4.W.3	(3) Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	<b>Unit 1:</b> T27g, T59a, T59b, T59c, T59d; <b>Unit 2:</b> T71i, T71o, T71p, T97i; <b>Unit 3:</b> T143i, T167a, T167b, T167c, T167d, T196; <b>Unit 5:</b> T337i, T337j; <b>Unit 6:</b> T351i, T385q; <b>Unit 7:</b> T423i, T445g, T477a, T477b, T477c, T477d, T477i, T477o, T477p, T484, T485, T486, T487; <b>Unit 8:</b> T489j, T515a, T515b, T515c, T515d	
	CC.4.W.3.a	(a) Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.	<b>Unit 1:</b> T35w, T35x; <b>Unit 2:</b> T71i, T97i, T97o, T97p, T105i, T105j, T105k, T105l; <b>Unit 4:</b> T245w, T245x, T269a, T269c; <b>Unit 5:</b> T337i; <b>Unit 6:</b> T351i, T385q; <b>Unit 7:</b> T423i, T445g, T477a, T477b, T477c	
	CC.4.W.3.b	(b) Use dialogue and description to develop experiences and events or show the responses of characters to situations.	<b>Unit 2:</b> T105i, T105j, T105k, T105l; <b>Unit 5:</b> T281o, T281p, T303b, T303c, T303d; <b>Unit 6:</b> T385q; <b>Unit 7:</b> T453q, T477i	
	CC.4.W.3.c	(c) Use a variety of transitional words and phrases to manage the sequence of events.	<b>Unit 2:</b> T105i, T105j, T105k, T105l	
	CC.4.W.3.d	(d) Use concrete words and phrases and sensory details to convey experiences and events precisely.	<b>Unit 3:</b> T167o, T167p, T173i, T173j, T173k, T173l; <b>Unit 4:</b> T276, T277, T278, T279; <b>Unit 8:</b> T515a, T515b, T515c, T515d	
	CC.4.W.3.e	(e) Provide a conclusion that follows from the narrated experiences or events.	<b>Unit 7:</b> T453w, T453x, T477a, T477b, T477c;	
	Production and Distribution of Writing	CC.4.W.4	(4) Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)	<b>Unit 2:</b> T71o, T71p, T97a, T97b; <b>Unit 3:</b> T167a, T167b, T167c, T167d, T197g; <b>Unit 5:</b> T281i, T303i, T313q; <b>Unit 6:</b> T385q, T409g; <b>Unit 7:</b> T477j; <b>Unit 8:</b> T489i, T515i, T525q
		CC.4.W.5	(5) With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 3 on pages 28 and 29.)	<b>Unit 1:</b> T1m, T27l, T35i, T35j, T35v, T59a, T59b, T59c, T59d, T59n, T66, T67, T68, T69; <b>Unit 2:</b> T71i, T71m, T71n, T97a, T97b, T97c, T97d, T97n, T105v, T129l, T138, T139, T140; <b>Unit 3:</b> T143p, T167a, T167b, T167c, T167d, T173i, T173j, T173k, T173l, T206–207, T208, T208a, T209, T210, T211; <b>Unit 4:</b> T213m, T213n, T237k, T237l, T245i, T245j, T245k, T245l, T245v, T269a, T269b, T269c, T269n, T276, T277, T278, T279; <b>Unit 5:</b> T281n, T303a, T303b, T303c, T303d, T303n, T313i, T313j, T313k, T313l, T313v, T337l, T346, T347, T348, T349; <b>Unit 6:</b> T351n, T379a, T379b, T379c, T379d, T379n, T385i, T385j, T385k, T385l, T385v, T409l, T418, T419, T420, T421; <b>Unit 7:</b> T423n, T445l, T453i, T453j, T453k, T453l, T453v, T477a, T477b, T477c, T477d, T477n, T484, T485, T486, T487; <b>Unit 8:</b> T489n, T525v, T549l, T515a, T515b, T515c, T515d, T525i, T525j, T525k, T525l, T560, T561, T562, T563

# Grade 4 Common Core Standards

## Writing, continued

Strand	Code	Standards Text	Grade 4 Units 1–8 Standards Correlations
Production and Distribution of Writing	CC.4.W.6	(6) With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.	<b>Unit 2:</b> T129e; <b>Unit 3:</b> T143j, T167a, T167b, T167c, T167d, T173r; <b>Unit 6:</b> T379o, T379p, T385j, T385k, T385l; <b>Unit 8:</b> T525j, T525k, T525l
Research to Build Knowledge	CC.4.W.7	(7) Conduct short research projects that build knowledge through investigation of different aspects of a topic.	<b>Unit 1:</b> T1i, T1n, T1o, T27a, T27b, T27h, T35q, T59j; <b>Unit 2:</b> T71j, T97i, T97j, T105r, T105w, T105x, T129a, T129e, T129f; <b>Unit 3:</b> T173w, T173x, T197a, T197b, T208, T208a; <b>Unit 4:</b> T213i, T213o, T213p, T237a, T237b, T237g, T237h; <b>Unit 5:</b> T281j, T303j, T313q, T313r, T337a, T337b, T337g, T337h; <b>Unit 6:</b> T351j, T379j, T409a; <b>Unit 7:</b> T423j, T453r, T477j, T445a; <b>Unit 8:</b> T489j, T515j, T525r, T525w, T525x, T549a, T549b
	CC.4.W.8	(8) Recall relevant information from experience or gather relevant information from print and digital sources; take notes and categorize evidence, and provide a list of sources.	<b>Unit 1:</b> T1h, T1i, T27h, T35q; <b>Unit 2:</b> T71i, T71j, T97i, T97j, T105r, T129a, T129b; <b>Unit 3:</b> T173w, T173x, T197a, T197b, T197h, T208a, T209; <b>Unit 4:</b> T213j, T213o, T213p, T237a, T237b; <b>Unit 5:</b> T313r, T313w, T313x, T337a, T337b, T337g, T337h; <b>Unit 6:</b> T385q, T385w, T385x, T409a, T409b, T409g, T409h; <b>Unit 7:</b> T423o, T423p, T445a, T445b, T453r; <b>Unit 8:</b> T489i, T515j, T525w, T525x, T549a, T549b
	CC.4.W.9	(9) Draw evidence from literary or informational texts to support analysis, reflection, and research.	<b>Unit 1:</b> T6, T33, T35r, T38, T60b, T60c; <b>Unit 2:</b> T97j, T98a, T98b, T98c, T99, T126–127, T130b, T130, T131; <b>Unit 3:</b> T167j, T173r, T197h; <b>Unit 4:</b> T213o, T213p, T218, T237a, T237b, T243, T245a, T245d, T248, T273, T275a, T275d; <b>Unit 5:</b> T286, T304b, T311, T313w, T313x, T316, T337h, T338b, T343; <b>Unit 6:</b> T356, T381, T382, T385d, T385w, T385x, T393, T394–395, T396–397, T398–399, T400–401, T402, T403, T409a, T409b, T409m, T409n, T409o, T410a, T410b, T410c, T411, T414–415, T418, T419, T420; <b>Unit 7:</b> T439, T443, T446b, T481, T483d; <b>Unit 8:</b> T506–507, T523, T525d, T525g, T528, T536–537, T549m, T549n, T550b, T557, T559d, T559g
	CC.4.W.9.a	(a) Apply grade 4 reading standards to literature (e.g. “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g. a character’s thoughts, words, or actions.]”).	<b>Unit 1:</b> T50–51; <b>Unit 2:</b> T75a, T76, T80, T81, T82–83, T84–85, T86–87, T88–89, T105f, T105g, T105h; <b>Unit 4:</b> T275c, T275d; <b>Unit 5:</b> T284, T286, T286a, T288, T289, T290, T295, T301b, T302; <b>Unit 6:</b> T356, T358, T359, T372, T374–375, T377a, T385d, T385g; <b>Unit 8:</b> T494
	CC.4.W.9.b	(b) Apply grade 4 reading standards to informational texts (e.g. “Explain how an author uses reasons and evidence to support particular points in a text”).	<b>Unit 1:</b> T6, T9, T35d, T35g, T38, T60b, T63, T65c, T65d, T65h; <b>Unit 2:</b> T137f, T137g, T137h; <b>Unit 3:</b> T174, T176, T180, T188–189, T205e, T205g; <b>Unit 4:</b> T216, T218, T235, T245a, T245b, T245d, T248, T275e, T275g, T275h; <b>Unit 5:</b> T314, T316, T316a, T318, T319, T320, T328–329; <b>Unit 6:</b> T390, T391, T396–397, T405, T406, T407, T408, T408a, T409, T417g; <b>Unit 7:</b> T439, T446b, T451, T453d, T478b, T483g; <b>Unit 8:</b> T525d, T525g, T536–537
Range of Writing	CC.4.W.10	(10) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	<b>Unit 1:</b> T4, T6, T6a, T9, T10, T18–19, T20, T24–25, T25a, T27, T35i, T35j, T35k, T35l, T36, T38, T38a, T41, T42, T50–51, T52, T57a, T66, T67, T68, T69, T70, T71, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27; <b>Unit 2:</b> T74, T76, T80, T84–85, T97b, T97c, T98c, T103, T106, T108, T108a, T110, T111, T112, T120–121, T127a, T128, T137d, T139, T140, T142, T143, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27; <b>Unit 3:</b> T143i, T146, T148, T152, T159, T160, T165a, T167a, T167b, T167c, T167d, T167o, T167p, T167a, T168b, T173c, T173d, T173e, T173g, T173j, T173k, T173l, T174, T176, T176a, T178, T179, T180, T188–189, T190, T194–195, T197m, T197n, T205c, T205d, T205e, T205g, T206–207, T208, T208a, T209, T210, T211, T212, T213, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27; <b>Unit 4:</b> T216, T218, T218a, T220, T221, T222, T230–231, T235a, T236, T245e, T245f, T245g, T245j, T245k, T246, T248, T248a, T250, T251, T252, T259, T267a, T268, T269b, T269c, T269i, T269q, T270b, T277, T278, T279, T280, T281, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27; <b>Unit 5:</b> T284, T286, T286a, T288, T289, T290, T295, T296, T301a, T301b, T302, T303a, T303b, T303c, T303d, T313c, T313d, T313e, T313g, T314, T316, T316a, T318, T319, T320, T328–329, T30, T334–335, T335a, T336, T343a, T345, T345c, T345d, T345e, T345g, T346, T347, T348, T349, T350, T351, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27; <b>Unit 6:</b> T351i, T354, T356a–359, T360, T371, T372, T377a, T377b, T378, T379a, T379b, T379c, T379d, T379q, T380b, T385g, T385i, T385j, T385k, T385l, T386, T388, T388a, T392, T403, T404, T407, T417d, T418, T419, T420, T421, T422, T423, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27; <b>Unit 7:</b> T426, T428, T428a, T431, T432, T439, T440, T441, T442, T443, T443a, T444, T453i, T453e, T453g, T453j, T453k, T453l, T454, T456, T456a, T458, T459, T460, T468–469, T470, T475a, T475b, T476, T477a, T477b, T477c, T477d, T484, T485, T486, T487, T488, T489, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27; <b>Unit 8:</b> T492, T494, T494a, T496, T497, T498, T506–507, T513b, T514, T515a, T515b, T515c, T515d, T515q, T516b, T525i, T525j, T525k, T525l, T526, T527, T528a, T530, T531, T532, T538, T546–T547, T547a, T548, T560, T561, T562, T563, T564, T565, SG8, SG9, SG14, SG15, SG20, SG21, SG26, SG27

# Speaking and Listening

Strand	Code	Standards Text	Grade 4 Units 1–8 Standards Correlations	
Comprehension and Collaboration	CC.4.SL.1	(1) Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.	<b>Unit 1:</b> T6a, T7, T8, T9, T10, T11, T12–13, T14–15, T16–17, T18–19, T20, T22–23, T24–25, T26a, T27, T57b, T58a, T59, T59j; <b>Unit 2:</b> T80, T81, T82–83, T84–85, T86–87, T88–89, T90, T92–93, T95a, T96, T96a, T97, T105q, T137d, T137h, T142, T143; <b>Unit 3:</b> T152, T153, T154–155, T156–157, T158, T166a, T167, T167q, T168a, T168b, T171a, T172, T173, T176a, T177, T180, T181, T182–183, T184–185, T186–187, T188–189, T190, T196, T205f, T205g, T205h; <b>Unit 4:</b> T213i, T245r; <b>Unit 5:</b> T313r; <b>Unit 6:</b> T379j, T385r, T409g; <b>Unit 7:</b> T423i, T423j, T477i, T483h; <b>Unit 8:</b> T515i, T525r, T549g	
	CC.4.SL.1.a	(a) Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.	<b>Unit 1:</b> T6a, T8, T14–15, T18–19, T20, T24–25, T25a, T26, T27, T35e, T35g, T35h, T57b, T58a, T59, T65e, T65h, T70, T71, SG6, SG7, SG12, SG13, SG18, SG19, SG24, SG25; <b>Unit 2:</b> T97i, T105f, T105g, T105h, T130a, T137f, T137h, SG6, SG7, SG8, SG9, SG12, SG13, SG14, SG15, SG18, SG19, SG20, SG21, SG24, SG25, SG26, SG27; <b>Unit 3:</b> T144, T145, T160, T165, T166, T166a, T167, T173e, T173f, T173h, T212, T213, SG7, SG7, SG12, SG13, SG18, SG19, SG24, SG25; <b>Unit 4:</b> T213i, T245f, T245g, T245h, T245r, T275e, T275f, T275g, T280, T281, SG6, SG7, SG12, SG13, SG18, SG19, SG24, SG25; <b>Unit 5:</b> T313f, T313g, T313h, T345e, T345g, T345h, T350, T351, SG6, SG7, SG12, SG13, SG18, SG19, SG24, SG25; <b>Unit 6:</b> T352, T353, T385h, T417h, T422, T423, SG6, SG7, SG12, SG13, SG14, SG15, SG18, SG19, SG20, SG21, SG24, SG25, SG26, SG27; <b>Unit 7:</b> T424, T425, T453h, T488, T489, SG6, SG7, SG12, SG13, SG18, SG19, SG24, SG25; <b>Unit 8:</b> T525e, T525r, T559h, T564, T565, SG6, SG7, SG12, SG13, SG18, SG19, SG24, SG25	
	CC.4.SL.1.b	(b) Follow agreed-upon rules for discussions and carry out assigned roles.	<b>Unit 2:</b> T106, T107, T107a, T108a, T109, T110, T112, T128, T143; <b>Unit 3:</b> T152, T153, T154–155, T156–157, T158, T167q, T168a, T168b, T171a, T172, T173b, T197o; <b>Unit 4:</b> T216, T217, T218a, T219, T232, T233, T234, T235, T235a, T236, T236a, T237, T237h; <b>Unit 6:</b> T351i, T385r	
	CC.4.SL.1.c	(c) Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.	<b>Unit 1:</b> T1h, T36, T37, T37a, T38a, T41, T59i; <b>Unit 2:</b> T90, T92–93, T95a, T96, T96a, T97, T105q, T106, T107, T107a, T129b, T137h, T143; <b>Unit 3:</b> T165b, T166, T166a, T167, T169, T170; <b>Unit 7:</b> T423i, T445g, T454, T455, T456	
	CC.4.SL.1.d	(d) Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	<b>Unit 1:</b> T27h, T27o, T28, T28a, T28b, T59q, T60, T60a, T60b; <b>Unit 2:</b> T97q, T98a, T98b, T130a, T130b; <b>Unit 3:</b> T173i, T173j, T173k, T176a, T177, T178, T179, T180, T182–183, T184–185; <b>Unit 4:</b> T248a, T249, T250, T251, T252, T253, T254–255, T256–257, T258, T259, T260, T261, T262–263, T264–265, T267a, T268, T268a, T269, T269q, T270a, T270b, T270c, T271, T272, T273, T273a, T274, T274a, T275, T275a, T275e, T275f, T275g, T275g; <b>Unit 5:</b> T303q, T304, T304a, T304b, T315, T315a, T316, T316a, T318, T319, T337o, T338a, T338b; <b>Unit 6:</b> T380a, T380b, T409g, T409o, T410a, T410b; <b>Unit 7:</b> T445h, T445o, T446, T446a, T446b, T453q, T477q; <b>Unit 8:</b> T515q, T526, T527, T528a, T530, T531, T549g, T549o, T550a, T550b	
	CC.4.SL.2	(2) Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	<b>Unit 1:</b> T2, T3, T59j; <b>Unit 2:</b> T71i, T90, T97i, T105q, T107a, T129e, SG21, SG27; <b>Unit 3:</b> T144, T145, T174, T175a, T181, T182–183, T184–185, T186–187, T188–189, SG21; <b>Unit 4:</b> T214, T232, T233, T234, T235, T237a, T237b, T237g, T245q; <b>Unit 5:</b> T281i, T313q, T337g; <b>Unit 6:</b> T380b, T385q, T409a, T409b, T409g; <b>Unit 7:</b> T424, T425, T432, T433, T434–435, T436–437, T438, T439, T445g, T453q, T477i; <b>Unit 8:</b> T515i, T525q	
	CC.4.SL.3	(3) Identify the reasons and evidence a speaker provides to support particular points.	<b>Unit 4:</b> T245i, T245j, T245k; <b>Unit 5:</b> T337a, T337b	
	Presentation of Knowledge and Ideas	CC.4.SL.4	(4) Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	<b>Unit 1:</b> T27a, T27b, T27g, T33a, T34, T34a, T35, T35d, T37a, T38, T58a, T59i, T63a, T64, T65, SG20, SG21; <b>Unit 2:</b> T97i, T103a, T014, T105, T105a, T105b, T105d, T105r, T129e, T135a, T136, T137, T142, T143, SG14; <b>Unit 3:</b> T171a, T172, T173q, T197a, T197b, T203a, T204, T205e; <b>Unit 4:</b> T213i, T237g, T237h, T243a, T244, T245, T269i, T269j, T273a, T274, T274a, T275, T281; <b>Unit 5:</b> T281i, T281j, T285, T286a, T288, T289, T303i, T303j, T311a, T312, T337a, T337b, T337g, T343a, T344, T345; <b>Unit 6:</b> T351j, T379i, T383a, T384, T385r, T388a, T408, T409g, T409h, T416; <b>Unit 7:</b> T445h, T451a, T452, T453r, T456a, T458, T481a, T482, SG20; <b>Unit 8:</b> T494a, T496, T497, T524, T525, T525r, T549a, T549b, T549h, T557a, T558
		CC.4.SL.5	(5) Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	<b>Unit 3:</b> T205e; <b>Unit 4:</b> T281; <b>Unit 5:</b> T303i; <b>Unit 6:</b> T351j, T379j; <b>Unit 7:</b> T445a, T445b, T477j; <b>Unit 8:</b> T515j
CC.4.SL.6		(6) Differentiate between contexts that call for formal English (e.g. presenting ideas) and situations where informal discourse is appropriate (e.g. small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 and 3 for specific expectations.)	<b>Unit 1:</b> T27g, T59i, T59o, T59p, T66, T67, T68, T69; <b>Unit 2:</b> T108a, T109, T110, T128, T129; <b>Unit 7:</b> T428a, T456a	



## Language, continued

Strand	Code	Standards Text	Grade 4 Units 1–8 Standards Correlations
Vocabulary Acquisition and Use	CC.4.L.4	(4) Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	<b>Unit 1:</b> T27o, T28, T28c, T35c, T35e, T35f, T35g, T59q, T60, T60c, T61, T65c, T65d; <b>Unit 2:</b> T97q, T98, T98c, T99, T105c, T105e, T129f, T129o, T130, T130a, T130c, T131, T137a, T137b, T137c, T137e, T137f; <b>Unit 3:</b> T197j, T197o, T198, T198c, T199, T205c, T205d; <b>Unit 4:</b> T237h, T237o, T238, T238c, T240, T245a, T245c, T245e, T245h, T245q, T269q, T270c, T275c, T275d, T275e; <b>Unit 5:</b> T303q, T304, T304a, T304b, T305, T306–307, T308–309, T310, T311, T313a, T313b, T313c, T313d, T313e, T313f, T313g, T313h, T337o, T338, T338c, T339, T340, T345a, T345c, T345d, T345e, T345g; <b>Unit 6:</b> T379q, T380, T380c, T381, T385c, T385e, T409o, T410, T410c, T412–413, T417c, T417e; <b>Unit 7:</b> T445o, T446, T446c, T453c, T453e, T477q, T478, T478c, T479, T481a, T482a, T483, T483c, T483e; <b>Unit 8:</b> T515q, T516, T516c, T525c, T549o, T550, T550c, T559a, T559b, T559c, T559d, T559e
	CC.4.L.4.a	(a) Use context (e.g. definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.	<b>Unit 2:</b> T98c, T105c, T105e; <b>Unit 4:</b> T237o, T238, T238c, T245c, T245e, T269q, T270c, T275e
	CC.4.L.4.b	(b) Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g. telegraph, photograph, autograph)	<b>Unit 3:</b> T167q, T168, T168c, T173c, T173e; <b>Unit 6:</b> T379q, T380, T380c, T381, T385c, T385e, T409o, T410, T410c, T414–415, T417c, T417e
	CC.4.L.4.c	(c) Consult reference materials (e.g. dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.	<b>Unit 1:</b> T1k, T27o, T28, T35c, T35e; <b>Unit 2:</b> T97l, T129j, T130, T130c, T137a, T137b, T137c, T137e; <b>Unit 3:</b> T143l, T173c, T173e, T197j; <b>Unit 4:</b> T269l; <b>Unit 6:</b> T379l, T409i; <b>Unit 7:</b> T453t; <b>Unit 8:</b> T489l
	CC.4.L.5	(5) Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	<b>Unit 2:</b> T95a; <b>Unit 3:</b> T162–163, T164, T165a, T168a, T168b, T170, T171a, T173r, T197i, T197o, T198, T198c, T205c, SG14; <b>Unit 4:</b> T252, T253, T254–255, T256–257, T259, T260, T261, T262–263, T264–265, T267, T269o, T269p, T269q, T270a, T270b, T271, T272, T273, T273a, T275f, T276, T277, T278, T279; <b>Unit 5:</b> T281i, T303q, T304, T304b, T305, T306–307, T310, T313a, T313b, T313c, T313d, T313e, T313f, T313g, T313h, T337o, T338, T338c, T345c, T345e; <b>Unit 6:</b> T379q, T380, T380c, T381, T385c, T385e, T409o, T410, T410c, T414–415, T417e; <b>Unit 7:</b> T423i; <b>Unit 8:</b> T513, T513a, T549o, T550, T550c, T559a, T559b, T559c, T559d, T559e
	CC.4.L.5.a	(a) Explain the meaning of simple similes and metaphors (e.g. as pretty as a picture) in context.	<b>Unit 3:</b> T168a, T168b, T170, T171a; <b>Unit 4:</b> T270a, T270b, T272, T273, T273a
	CC.4.L.5.b	(b) Recognize and explain the meaning of common idioms, adages, and proverbs.	<b>Unit 1:</b> T44–45, T59q, T60, T60c, T61, T65c; <b>Unit 8:</b> T515q, T516, T516c, T525c, T559a, T559b, T559d
	CC.4.L.5.c	(c) Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).	<b>Unit 3:</b> T143l; <b>Unit 4:</b> SG26; <b>Unit 5:</b> T303q, T304, T304b, T304b, T305, T306–307, T310, T313c, T313e, T337o, T338, T338c, T345c, T345e; <b>Unit 8:</b> T525r
CC.4.L.6	(6) Acquire and use accurately grade appropriate conversational, general academic, and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g. quizzed, whined, stammered) and that are basic to a particular topic (e.g. wildlife, conservation, and endangered when discussing animal preservation).	Unit1: T1h, T4, T5, T5a, T6, T6a, T7, T8, T9, T10, T11, T12–13, T16–17, T18–19, T20, T21, T25a, T26, T27, T27g, T33a, T34, T35, T35q, T36, T37, T37a, T38, T38a, T40, T41, T42, T43, T50–51, T52, T53, T56, T57a, T57b, T58, T58a, T59, T59i, T63a, T64, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG4, SG25, SG26, SG27; <b>Unit 2:</b> T71i, T74, T75, T75a, T76, T80, T81, T82–83, T88–89, T90, T95b, T96, T97i, T103a, T105, T105q, T106, T107, T108, T108a, T109, T112, T122, T127a, T128, T128a, T129e, T135a, T136, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG17, SG18, SG19, SG20, SG21, SG23, SG24, SG25, SG26, SG27; <b>Unit 3:</b> T143i, T146, T147, T147a, T148, T148a, T149, T151, T152, T153, T158, T159, T160, T161, T162–163, T164, T165a, T165b, T166a, T167, T167i, T172a, T172, T173, T173q, T174, T175, T175a, T176, T176a, T177, T178, T179, T180, T181, T182–183, T184–185, T186–187, T188–189, T190, T191, T192–193, T194–195, T195a, T196, T196a, T197, T197g, T203a, T204, T205, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 4:</b> T213i, T216, T217, T218a, T219, T222, T223, T224–225, T226–227, T228–229, T232, T233, T234, T235, T235a, T236, T236a, T237, T237g, T243a, T245, T245q, T246, T247, T247a, T248a, T249, T250, T252, T253, T256–257, T259, T260, T261, T264–265, T267a, T269, T269i, T269o, T269p, T270c, T271, T272, T273a, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 5:</b> T281i, T284, T285, T285a, T286a, T287, T288, T289, T290, T291, T292, T293, T294, T295, T296, T297, T298–299, T300, T301a, T301b, T302, T302a, T303, T303i, T311a, T312, T312a, T313, T313q, T314, T315, T315a, T316, T316a, T317, T320, T321, T322–323, T324–325, T326–327, T328–329, T330, T331, T332–333, T334–335, T335a, T336, T336a, T337, T337g, T343a, T344, T345, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 6:</b> T351i, T354, T355, T355a, T356a, T357, T360, T372, T373, T377b, T378, T379i, T383a, T385, T385q, T386, T387, T387a, T388a, T389, T392, T393, T394–395, T396–397, T404, T406, T407a, T408, T408a, T409g, T415a, T416a, SG5, SG6, SG7, SG11, SG12, SG13, SG17, SG18, SG19, SG23, SG24, SG25; <b>Unit 7:</b> T423i, T426, T427, T427a, T428, T428a, T429, T430, T431, T432, T433, T434–435, T436–437, T438, T439, T440, T441, T442, T443, T443a, T444, T444a, T445, T445g, T451a, T452, T453, T453q, T454, T455, T455a, T456, T456a, T457, T458, T460, T461, T462–463, T464–465, T466–467, T468–469, T470, T471, T472–473, T474, T475a, T475b, T476, T476a, T477, T477i, T481a, T482, T483, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27; <b>Unit 8:</b> T489i, T492, T493, T493a, T494, T494a, T495, T496, T497, T499, T500–501, T502–503, T504–505, T506–507, T508, T509, T510–511, T512, T513, T513a, T513b, T514, T514a, T515, T515i, T523a, T524, T525q, T526, T527, T527a, T528, T528a, T529, T532, T533, T534–535, T536–537, T538, T539, T540–541, T542–543, T544–545, T546–547, T547a, T548, T548a, T549, T549g, T557a, T558, T558a, T559, SG4, SG5, SG6, SG7, SG8, SG9, SG10, SG11, SG12, SG13, SG14, SG15, SG16, SG17, SG18, SG19, SG20, SG21, SG22, SG23, SG24, SG25, SG26, SG27	

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10 Jacques Huet/Corbis. 11 (a) Mantus Klum/Researched. (c) Bill Curtsinger/National Geographic Image Collection. (b) (c) Jimmy Chin/National Geographic Image Collection. (d) (e) DigitalStock/Corbis. (f) (g) Chris Foy/National Geographic Image Collection. (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)

Rao Grandhi. 19 (a) Jacqu Huet/Corbis. 20 (a) Mantus Klum/Researched. (b) (c) Bill Curtsinger/National Geographic Image Collection. (d) (e) DigitalStock/Corbis. (f) (g) Chris Foy/National Geographic Image Collection. (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)

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## Mark-Up Models

**Photographs:** 7.1 S1-3 NASA/courtesy of nasaimages.org; 7.2 S1 NASA/courtesy of nasaimages.org; 7.2 S2 CBS Photo Archive/Getty Images

## Cross Curricular Teamwork

5 Artville. 11 Alan D. Carey/PhotoDisc/Getty Images. 31 Stephen Aaron Rees/Shutterstock. 33 lemonlight features/Alamy. 38 (c) Linda & Colin McKie/iStockphoto, (tr) C Squared Studios/Photo-Disc/Getty Images, (mc, mr) PhotoDisc/Getty Images. 48 Werner Pfunder/Photolibrary.

## Language Builder Picture Cards

E1-E2 Marilyn Angel Wynn/Nativestock Pictures. E3 Hemis.fr/SuperStock/SuperStock. E4 Robin Nelson/PhotoEdit. E5 Rolf Richardson/Alamy Images. E6 Nancy Carter/North Wind Picture Archives. E7 Andrew Woodley/Alamy Images. E8 Radius Images/Alamy Images. E9 Gary Conner/PhotoEdit. E10 Olga Rosario Avendano/epa/Corbis. E11 Todd Gipstein/Corbis. E12 Bob Krist/Corbis. E13 V1/Alamy Images. E14 Marsha Goldenberg/Shutterstock. E15 Mihai Dancaescu/Shutterstock. E16 Radius Images/Alamy Images. E17 Cindy Haggerty/Shutterstock. E18 Corel. E19 David G. Miller/Getty Images. E20 Master le. E21 Susan E. Degginger/Alamy Images. E22 Nick Koudis/Digital Vision/Getty Images. E23 Steven Senne/AP Images. E24 moodboard/Alamy Images. E25 Jim Parkin/iStockphoto. E26 David H. Wells/Corbis. E27 Alexander Chaikin/Shutterstock. E28 Richard T. Nowitz/Corbis. E29 Arthur Tilley/Jupiterimages. E30 Cindy Miller Hopkins/Danita Delimont/Alamy Images. E31 David S. Boyer and Arlan R. Wiker/National Geographic Image Collection. E32 Sue Flood/Getty Images. E33 Jason Gilmore/National Geographic Image Collection. E34 Richard Coomber/Taxi/Getty Images. E35 Kiyomasa Miyashita/Yamanashi Fujicolor/Dex Image/Getty Images. E36 Stephen Alvarez/National Geographic Image Collection. E37 Bill Brooks/Alamy Images. E38 Frank and Helen Schreider/National Geographic Image Collection. E39 W. Robert Moore/National Geographic Image Collection. E40 Glen Allison/Photodisc/Getty Images. E41 Belinda Pretorius/Shutterstock. E42 Luc Novovitch/Alamy Images. E43 James P. Blair/National Geographic Image Collection. E44 Norbert Michalke/imagebroker/Alamy Images. E45 Nobor/Shutterstock. E46 Brittany Courville/Shutterstock. E47 Corbis Premium RF/Alamy Images. E48 Mike Theiss/National Geographic Image Collection. E49 Master le. E50 Karl Weatherly/Getty Images. E51 Matt Carr/Getty Images. E52 Jim Cummins/Taxi/Getty Images. E53-E54 Dennis Kunkel Microscopy, Inc./Phototake/Alamy Images. E55 Steve Gschmeissner/Science Photo Library/Alamy Images. E56 Louise Gubb/Corbis Saba/Corbis. E57 Igor Dutina/Shutterstock. E58 Bettmann/Corbis. E59 Daniel Dillon/Alamy Images. E60 Schieren - StockFood Munich/StockFood America. E61 Foodcollection/Alamy Images. E62 Tim Pannell/Corbis Premium RF/Alamy Images. E63 Gianni Tortoli/National Geographic Image Collection. E64 Dr. Morley Read/Shutterstock. E65 blickwinkel/Alamy Images. E66 George F. Mobley/National Geographic Image Collection. E67 Charles E. Rotkin/Corbis. E68 Paul Springett 08/Alamy Images. E69 BMCL/Shutterstock. E70 The Granger Collection, New York. E71 Arteficient/Shutterstock. E72 IIC/Axiom/Getty Images. E73 Bill Curtsinger/National Geographic Image Collection. E74 DK Limited/Corbis. E75-E78 Victor R. Boswell, Jr./National Geographic Image Collection. E79 Michael Newman/PhotoEdit. E80 Jose Carillo/PhotoEdit. E81 max blain/Shutterstock. E82 Louis Fox/Getty Images. E83 Gordon Scammell/Alamy Images. E84 Dave Nagel/Getty Images. E85 Bob Daemmrlich/PhotoEdit. E86 James A. Sugar/National Geographic Image Collection. E87 Stockbyte/Getty Images. E88 NASA - Image of the Day Gallery. E89 Richard T. Nowitz/Corbis. E90 Stockbyte/Getty Images. E91 NASA Image Exchange. E92 C. C. Lockwood 2004. E93 Maria Stenzel/National Geographic Image Collection. E94 The Granger Collection, New York. E95 Kenneth Garrett/National Geographic Image Collection. E96 O. Louis Mazzatenta/National Geographic Image Collection. E97 Cindy Miller Hopkins/Danita Delimont/Alamy Images. E98 Sarah Leen/National Geographic Image Collection. E99 Bob Daemmrlich/PhotoEdit. E100 Natalie Fobes/Corbis. E101 Patrick Ward/Corbis. E102 PhotoDisc/Getty Images. E103 Jocelyn Augustino/FEMA. E104 Stretch Photography/Blend Images/Corbis.

## Language and Literacy Teamwork

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