

FOSTERING STUDENTS' READING COMPREHENSION THROUGH BUILDING LANGUAGE AND KNOWLEDGE IN K-3 CLASSROOMS

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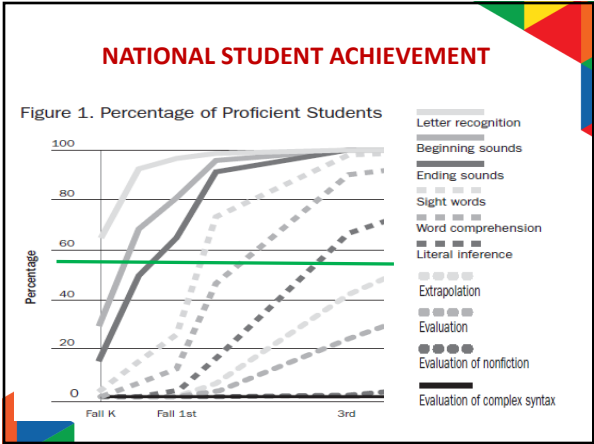
- ## AGENDA FOR TODAY
- Introduction: How Reading Aloud Helps Students Learn
 - Building Language
 - Building Knowledge
 - Putting it All Together: Core Knowledge Language Arts Program
- 

INTRODUCTION: HOW READING ALOUD HELPS STUDENTS LEARN

- ## OPENING ACTIVITY
- Write down five books (or texts) that you read aloud to your students.
 - Share with your neighbors.

WHAT IS READING?

Reading = **D**ecoding X **C**omprehension



WHY IS READING ALOUD IMPORTANT FOR STUDENT LEARNING?

WHY IS READING ALOUD IMPORTANT FOR STUDENT LEARNING?

- Builds vocabulary skills
- Builds listening comprehension
- Builds knowledge

↓

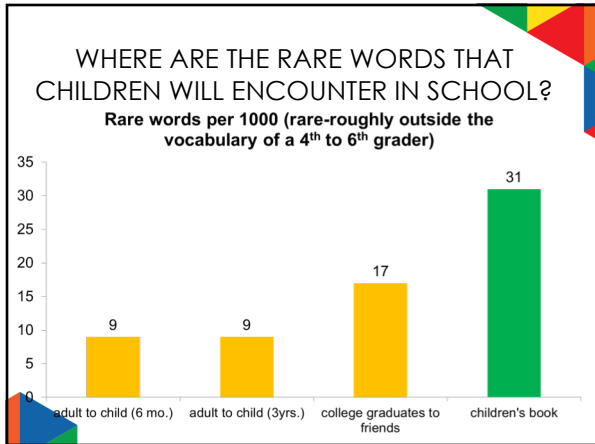
R = D X C

WHAT MATTERS ABOUT READING ALOUD

- **What** you read is important
- **How often** you read is important
- **How** you read it is important

WHAT YOU READ IS IMPORTANT

- Complexity of texts
- Topics of texts
- Varied text genre, including informational text



HOW OFTEN YOU READ IS IMPORTANT

How often do you currently read aloud?

- A. Daily
- B. 3 times a week
- C. Once per week

HOW OFTEN YOU READ IS IMPORTANT

How long is your typical session?

- A. 5 minutes
- B. 15 minutes
- C. 30 minutes
- D. 1 hour

HOW OFTEN YOU READ IS IMPORTANT

Language and knowledge are not constrained skills and they take time to build!

HOW YOU READ IS IMPORTANT

- Interactive read alouds matter
- Importance of extra-textual talk to build vocabulary and listening comprehension

BUILDING LANGUAGE

ACADEMIC LANGUAGE

- Academic language serves as a bridge between casual language used in speech to the language used in books.



BUILDING ACADEMIC LANGUAGE

- Vocabulary
- Listening Comprehension

VOCABULARY IS...

- how many words you know (breadth).
- how well you know those words (depth).

RECEPTIVE VS. EXPRESSIVE VOCABULARY

- **Receptive vocabulary**
 - The words that children can understand when they hear them.
- **Expressive vocabulary**
 - The words that children use in their own speech.

Children *understand* much more than they *produce*.

HOW MANY WORDS DOES THE AVERAGE PERSON KNOW?

Write down your estimates for the number of words known (as exhibited by their expressive vocabulary)

Age	Number of Words
0	
1	
2	
3	
5	
7	
10	
22	

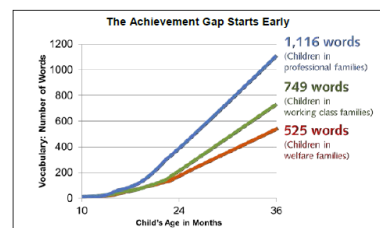
VOCABULARY SIZE INCREASES AS WE AGE

Age	Number of Words
0	0
1	1
2	300
3	2,000
5	3,000
7	5,200
10	8,400
22	20,000

VOCABULARY DEVELOPS VERY QUICKLY IN EARLY CHILDHOOD

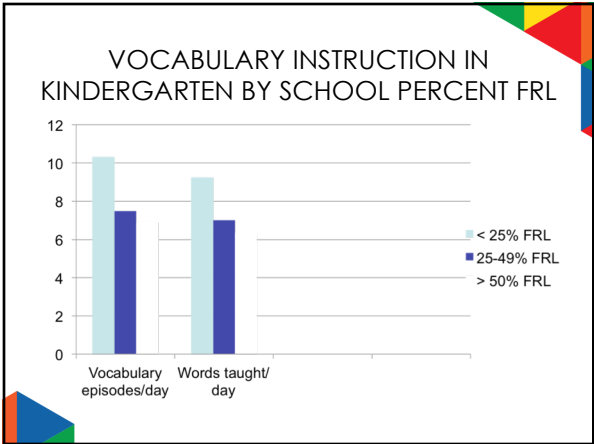
- Many hundreds of words per year during the first seven years
 - About 2.5 words per day
 - 6,000 words by age 7
- Children who fall behind in early childhood tend to stay behind
 - 25% of children learn only 1.6 words/day
 - Only 4,000 words by age 7

HART & RISLEY (1995) "THE 30 MILLION WORD GAP"



STUDENTS LIVING IN POVERTY COME TO SCHOOL:

- Knowing fewer words
- Having less knowledge
- Using less complex syntax



WHY IS VOCABULARY IMPORTANT?

- Early vocabulary size predicts later reading.
- Children with larger vocabularies will become **faster** and **better** readers.
- Children who know more words will understand more of what is read to them and learn more and this cycle repeats itself.

ACTIVITY: THE IMPORTANCE OF VOCABULARY TO READING COMPREHENSION

- Read The Travity.
- Answer the comprehension questions that go with The Travity.

PASSAGE 1: THE TRAVITY

The Earth is surrounded by an ocean of gases we call the travity. The travity is important because it contains the most living things breathe. It also absorbs heat from the sun. It even recycles water by returning it back to the Earth as rain. Without the travity, life as we know it could not exist on Earth. The travity extends far above the surface of the Earth. Scientists discovered that the travity is divided into layers, just like a layer cake. Each layer varies in thickness and in temperature. Each layer is replendered of a different tolo of gases.

Which is an important function of the travity?

- Keeping gases close to the Earth.
- Absorbing the sun's heat pomino.
- Evaporating the mab living things breathe.
- Containing water from the Earth.

What does the word tolo mean in this passage?

- Process material so that it is used again.
- To keep the air pressure constant.
- The way the parts of something are arranged.
- Music notes written on a page

Retrieved from <http://www.ncsu.edu/project/lancet/fourth.htm>

PASSAGE 2: THE ATMOSPHERE

The Earth is surrounded by an ocean of gases we call the atmosphere. The atmosphere is important because it contains the air most living things breathe. It also absorbs heat energy from the sun. It even recycles water by returning it back to the Earth as rain. Without the atmosphere, life as we know it could not exist on Earth. The atmosphere extends far above the surface of the Earth. Scientists discovered that the atmosphere is divided into layers, just like a layer cake. Each layer varies in thickness and in temperature. Each layer is composed of a different composition of gases.

Which is an important function of the atmosphere?

- Keeping gases close to the Earth.
- Absorbing the sun's heat energy.
- Evaporating the air living things breathe.
- Containing water from the Earth.

What does the word composition mean in this passage?

- Process material so that it is used again.
- To keep the air pressure constant.
- The way the parts of something are arranged.
- Music notes written on a page

Retrieved from <http://www.ncsu.edu/project/lancet/fourth.htm>

REFLECTION QUESTIONS FOR PASSAGES 1 AND 2

- Did you find the passage easy or difficult to understand?
- What was it like to read without knowing important words in Passage 1?
- How did your familiarity with the words in Passage 2 affect your comprehension?
- Did you find it easy or difficult to answer the comprehension questions?
- Even if some of the words in the passages were not very familiar to you, how did your background knowledge affect your understanding?

SUMMARY OF ACTIVITY

- Vocabulary knowledge impacts reading comprehension.
- Breadth and depth are important to reading comprehension.

BUILDING STUDENTS' VOCABULARY

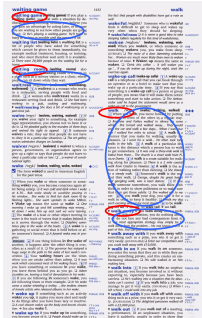
Breadth and Depth

HOW DOES VOCABULARY GROW?

- By increasing **breadth**:
 - The number of words children know.
- By increasing **depth**:
 - The ways in which children know these words.

UNDERSTANDING BREADTH AND DEPTH

- **Breadth** - the number of entries
- **Depth** - the number of definitions



ACTIVITY: WORD KNOWLEDGE SORT

	Know it well, can explain it, use it	Know something about it	Have seen or heard the word	Do not know the word
Benevolent				
Emerging				
Valet				
Lucky				
Jocund				
Detest				
Scary				
Somnolent				
Fortune				

WORD WEBS: BREADTH AND DEPTH ARE RELATED

- Your brain organizes and connects words in a "web of knowledge."
- The more words you know and the better you know them, the more intricate and tighter the web.
- The better the web, the better the understanding.
- Less information gets through a tighter web.

WORD WEBS CAN BE **TIGHT** OR **LOOSE**

- Many words
- Many layers of meaning
- More connections
- Fewer words
- Fewer layers of meaning
- Fewer connections

ACTIVITY: BUILDING WORD WEBS

1. Write down all the words you can think of related to **'air'**
2. Write down all the words you can think of related to **'atmosphere'**
3. Turn these into 'webs' by drawing lines between any words that are related

EXAMPLE WEB: AIR

EXAMPLE WEB: ATMOSPHERE

ACTIVITY: REFLECT ON BUILDING WORD WEBS

1. Which word (air or atmosphere) was easier to brainstorm around? Why?
2. Which word has a tighter web for you? Why?
3. Can you see how it's not only the words you know, but how well you know them (the more connecting lines) that affects your understanding?

SUMMARY OF ACTIVITY

- Your brain organizes and connects words in a "web of knowledge"
- The more words you know and the better you know them, the more intricate and tighter the web
- The better the web, the better the understanding
- Less information gets through a tighter web

QUICK KNOWLEDGE CHECK

1. Why is vocabulary important in the early grades?
2. In your own words why is it important to focus on both "breadth" and "depth" when teaching vocabulary?

VOCABULARY: BUILDING BREADTH AND DEPTH

- Selecting words to teach
- Providing child-friendly definitions

SELECTING WORDS TO TEACH

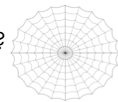
What are factors to consider in word selection?

FACTORS TO CONSIDER IN WORD SELECTION

- Choose difficult and potentially unknown words
- Choose useful words
 - (high mileage)
- Choose key concepts in text

WHAT MAKES A WORD "USEFUL"?

- Would a child encounter the word again?
- Is the word related to other words?
 - Help children make tight "webs"
- Will the child hear or say the word in other contexts?



WORDS FALL INTO 2 CATEGORIES:

- Category 1: Familiar/Every day
 - Cat
 - Bus
 - Book
- Category 2: Useful/High Mileage
 - Weather
 - Season
 - Measure

ACTIVITY: SORT WORDS INTO CATEGORIES 1 AND 2

Table
 Destroy
 Brave
 Grass
 Recycle
 Sad
 Green
 Pleasant

CATEGORY 1 & 2 WORDS SORTED

CATEGORY 1: FAMILIAR/EVERYDAY	CATEGORY 2: USEFUL/HIGH MILEAGE
Table	Destroy
Grass	Brave
Sad	Recycle
Green	Pleasant

ACTIVITY: SELECTING WORDS TO TEACH

- Select a passage (K, 1, 2, or 3)
- Read passage
- Circle **all words** that are difficult or potentially unknown to students.

ACTIVITY: SELECTING WORDS TO TEACH

- Select 5 words that you would teach.
- Share these with a partner who is working with the same passage.

WHICH WORDS DID YOU CHOOSE?

- There is no single "right" answer
- Different words may be useful in different classrooms
- The words you choose depends upon your students and your teaching goals across the curriculum

CHILD-FRIENDLY DEFINITIONS

- Dictionary definition of compliment
 - Compliment- an expression of esteem, respect, affection, or admiration; especially : an admiring remark
- Teacher's definition of compliment
 - When you say something nice about someone else
- How is the teacher's definition more child-friendly?

FEATURES OF CHILD-FRIENDLY DEFINITIONS

- Relies on words children already know
- Easy to understand
- Provides synonyms and antonyms
- Provides real-life examples

NOT SO CHILD-FRIENDLY DEFINITIONS

- **Steadily**- free from change, variation, or interruption; uniform; continuous
- **Company**- companionship, fellowship, association
- **Inspect**- to look carefully at or over; view closely or critically
- **Bolted**- a sudden dash, run, flight, or escape

Definitions from: <http://www.merriam-webster.com/dictionary/>

ACTIVITY: WRITING CHILD-FRIENDLY DEFINITIONS

- Four selected words from our passages:
 - **K- Steadily**
 - **1- Company**
 - **2- Inspect**
 - **3- Bolted**
- Make a "child-friendly" definition for those words
- Share/compare your definitions with a partner

EXAMPLES: WRITING CHILD-FRIENDLY DEFINITIONS

- **Steadily** means doing something continuously, at the same speed.
- **Company** mean to have someone to talk to.
- **Inspect** means to look carefully at something.
- **Bolted** means moved or ran off suddenly.

Definitions from: Zucker, T. A., Cabell, S. Q., Solari, E. J., & Landry, S. H. (2010). Developing Talkers: Pre-K curricular supplement to promote oral language. Houston, TX: University of Texas Health Science Center at Houston.

DISCUSSION: WRITING CHILD-FRIENDLY DEFINITIONS

- Did you find it easy or difficult to use words children already know in your definition?
- Were you able to make the definitions short and simple?
- How could adding synonyms and antonyms help tighten children's word webs?

QUICK KNOWLEDGE CHECK

1. What are some factors to consider when selecting words to teach?
2. What are some attributes of "child-friendly" definitions?

LISTENING COMPREHENSION IS....

- Understanding text being read aloud

"For Sale: Baby shoes, never worn."

Some say this short story was written by Hemingway. See link for more information: http://en.wikipedia.org/wiki/For_sale_baby_shoes_never_worn

Regular practice with **complex texts** and their **academic language**

What does it mean when we say a text is "complex?"

WHAT MAKES A TEXT COMPLEX?

- Increasingly complex content
- Increasingly complex language in terms of:
 - vocabulary
 - grammar
 - syntax
 - sentence structures

DIMENSIONS OF COMPLEXITY

- **Knowledge demands:**
 - Levels of Meaning
 - Life Experiences
 - Cultural and Content Knowledge
- **Language demands:**
 - Structure
 - Conventinality and Clarity

Figure 1. Qualitative Dimensions of Text Complexity

Levels of Meaning (LMA) or Discourse Informational Needs

- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content

Language Conventinality and Clarity (LCC) or Linguistic Features

- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content

Knowledge Demands (KD) or Discourse Informational Needs

- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content

Language Demands (LD) or Linguistic Features

- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content
- Textual or Discourse Structure and Organization
- Quantity of text or content

(CCSS ELA Appendix A, p. 6)

HOT CROSS BUNS

- Hot cross buns! } **Meaning:**
I have buns for sale!
- Hot cross buns! } *I have buns for sale!*
- One a penny, two a penny, } *Buy one for a penny or buy two for a penny.*
- Hot cross buns! } *I have buns for sale!*

Explicit → **Obscure**

HOT CROSS BUNS

Structure:

- Hot cross buns! *Sentence has an article, a noun, a verb and an adjective or adverb.*
- Hot cross buns! *"The muffin is sweet."*
- One a penny, two a penny, *"Hot dogs cost 99 cents."
One for a penny, two for a penny.*
- Hot cross buns! *I have buns for sale!*

Conventional → **Unconventional**

HOT CROSS BUNS

- Hot cross buns! **Knowledge:**
Most students would know the words, "hot," "cross," and "buns".
- Hot cross buns! **What are hot cross buns?**
 - Spiced sweet bun made with raisins and marked with a "frosting" cross on the top
 - Traditionally eaten on Good Friday
- One a penny, two a penny,
- Hot cross buns!

Everyday Knowledge → **Cultural Knowledge**

KEEP IN MIND

- Complexity should increase over time.
- Read-alouds in the early grades should be more concrete.
 - **Early grades**—usually will find one or two elements or dimensions of complexity employed through a single text.
 - **Upper grades**—usually will find multiple aspects of complexity in a single text.

Reading, writing, and speaking grounded in evidence from texts, both literary and informational

How do we elicit text-based answers?

TEXT-DEPENDENT QUESTIONS

- Text-dependent questions are questions that can only be answered through close analysis of text.
- Encourage student to gather evidence, insight, and knowledge from the text.

Why?

- **Focuses questions on what's important versus on distractors** (provided text is appropriate)
- **Focuses on and builds habit for textual support of answers** (future skills and expectations)

WRITE THREE QUESTION TYPES

Using the passage from the "selecting words" activity, write each kind of question.

- Literal** assess students' **recall** of content
- Inferential** guide students to **infer** information from the text
- Evaluative** guide students to **build upon** what they have learned from the text to use their **creative, analytical, and application** skills


BUILDING KNOWLEDGE

A THIRST FOR KNOWLEDGE

- Children are curious about the world
- Children's questions drive their cognitive development

ACTIVATE PRIOR KNOWLEDGE

How can we activate prior knowledge if there is no prior knowledge to activate?



Building knowledge through content-rich nonfiction

Why is content knowledge important to reading?

UNDERSTANDING THE REASON FOR THIS STUDY

PASSAGE #1

“Kallis and Rhodes put on 84 but, with the ball turning, Mark Waugh could not hit with **impunity** and his eight **overs** cost only 37. The runs still had to be scored at more than seven an over, with McGrath still to return and Warne having two overs left, when Rhodes pulled Reiffel to Beven at deep square leg.”

STUDENTS NEED KNOWLEDGE TO BUILD A RICH AND COHERENT REPRESENTATION OF THE TOPIC.



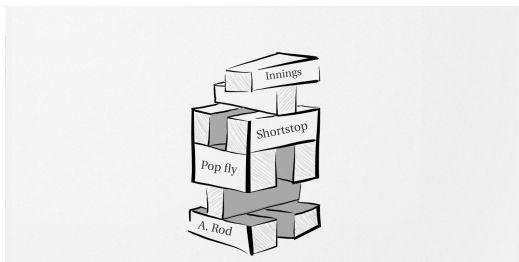
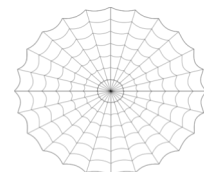
PASSAGE #2

“They’re very sound in what they do. Defensively, they are a good tackling team, they have great corners, obviously the pass rush is good, their inebacker play goes without being said, they’re outstanding. And then offensively, they control the clock and they pound you into submission...”



REMEMBER OUR WEBS

- Most vocabulary learning happens IMPLICITLY and INCIDENTALLY.
- Web of knowledge is critical for efficient word learning.



Conclusion:

Knowing about the subject matter makes you a reader who is **better able** to understand what you read

KNOWLEDGE HELPS FILL IN GAPS

Simple texts, like those on reading tests, are filled with gaps – presumed domain knowledge – that the writer assumes the reader knows.



KNOWLEDGE HELPS RESOLVE AMBIGUITY

Run

HOW DOES KNOWLEDGE HELP?

- Stand up and find a partner
- Discuss:
 - How does knowledge help reading comprehension?
 - How can knowledge support critical thinking?

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2012 NATIONAL SURVEY OF SCIENCE AND MATHEMATICS EDUCATION

Teaching Each Subject in Self-Contained Classes, by Grades Number of Minutes Per Day

	Grades K-3	Grades 4-6
Reading/Lang. Arts	89	83
Mathematics	54	61
Science	19	24
Social Studies	16	21

ARTICLE: WHY THE ABSENCE OF A CONTENT-RICH CURRICULUM CORE HURTS POOR CHILDREN MOST

WHAT WE KNOW

- Knowledge builds on knowledge
- All of our most desirable goals for education are all knowledge dependent:
 - Creativity
 - Problem solving
 - Reading comprehension
 - General achievement
- Knowing things allows us to expend the smallest amount of cognitive capacity on processing lower-order aspects of a problem so that more cognitive capacity is available for higher levels

DR. DAN WILLINGHAM, UVA

Teaching Content Is Teaching Reading

0:03 / 9:58

STAYING ON A TOPIC

COMMON CORE STATE STANDARDS FOR ENGLISH LANGUAGE ARTS & LITERACY IN HISTORY/SOCIAL STUDIES, SCIENCE, AND TECHNICAL SUBJECTS

**Staying on Topic Within a Grade and Across Grades:
How to Build Knowledge Systematically in English Language Arts K-5**

Building knowledge systematically in English language arts is the cumulative result of a series of carefully chosen texts that build one another and form a coherent body of knowledge. The texts are chosen for their informational value, their representativeness of subjects, disciplines, and historical periods, and their appropriateness for the students' reading level and cognitive abilities. The texts are chosen to build a coherent body of knowledge that is relevant to the students' lives and interests. The texts are chosen to build a coherent body of knowledge that is relevant to the students' lives and interests. The texts are chosen to build a coherent body of knowledge that is relevant to the students' lives and interests.

Grade Band	K-1	2-3	4-5	
Reading	<ul style="list-style-type: none"> Read and understand informational texts. Read and understand informational texts. Read and understand informational texts. 	<ul style="list-style-type: none"> Read and understand informational texts. Read and understand informational texts. Read and understand informational texts. 	<ul style="list-style-type: none"> Read and understand informational texts. Read and understand informational texts. Read and understand informational texts. 	<ul style="list-style-type: none"> Read and understand informational texts. Read and understand informational texts. Read and understand informational texts.
Writing	<ul style="list-style-type: none"> Write simple sentences. Write simple sentences. Write simple sentences. 	<ul style="list-style-type: none"> Write simple sentences. Write simple sentences. Write simple sentences. 	<ul style="list-style-type: none"> Write simple sentences. Write simple sentences. Write simple sentences. 	<ul style="list-style-type: none"> Write simple sentences. Write simple sentences. Write simple sentences.
Speaking and Listening	<ul style="list-style-type: none"> Engage in simple conversations. Engage in simple conversations. Engage in simple conversations. 	<ul style="list-style-type: none"> Engage in simple conversations. Engage in simple conversations. Engage in simple conversations. 	<ul style="list-style-type: none"> Engage in simple conversations. Engage in simple conversations. Engage in simple conversations. 	<ul style="list-style-type: none"> Engage in simple conversations. Engage in simple conversations. Engage in simple conversations.
Language Acquisition	<ul style="list-style-type: none"> Use basic language skills. Use basic language skills. Use basic language skills. 	<ul style="list-style-type: none"> Use basic language skills. Use basic language skills. Use basic language skills. 	<ul style="list-style-type: none"> Use basic language skills. Use basic language skills. Use basic language skills. 	<ul style="list-style-type: none"> Use basic language skills. Use basic language skills. Use basic language skills.

(Common Core State Standards for English Language Arts & Literacy In History/Social Studies, Science, And Technical Subjects, p. 33)

STAYING ON TOPIC

- Reading a series of text on a topic can grow as much as 4 times more vocabulary as jumping from topic to topic.
- Choose topics not themes.

DISCUSSION

What is the difference between a topic and a theme?

TOPICS VS. THEMES

<p>Topics</p> <ul style="list-style-type: none"> • Sea Mammals • Explorers • Vampires • Health • Insects • Native Americans • Transportation • Children in Vietnam • Immigrants 	<p>Themes</p> <ul style="list-style-type: none"> • Courage • Friendship • Survival • Growing Up • Decisions • Family • Respect • "We Help Each Other"
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