

Vocabulary

Word Rich vs. Word Poor

- *Meaningful Differences in the Experiences of Young American Children*
- (Betty Hart and Todd Risley, 1995)
 - Poverty/Working Class/Professional (by age 4)
 - Poverty: 13 million words
 - Working Class: 30 million words
 - Professional Class: 48 million words
 - 35-million word gap between poverty and professional class

Table 5.2: How the Gap in Word Knowledge Grows
(After Biemiller, 1999, 2005)

| Grade | Root Words Known by Average Student (25–75th Percentile) | Root Words Known by Lowest 25% Students (Bottom Quartile) |
|---------------------|--|---|
| End of pre-K | 3,440 | 2,440 |
| End of kindergarten | 4,300 | 3,016 |
| End of grade 1 | 5,160 | 3,592 |
| End of grade 2 | 6,020 | 4,168 |

- The “**Matthew Effect**” (Cunningham & Stanovich, 1998; Merton, 1968)
 - The rich get richer and the poor get poorer
 - Those with word poverty typically don’t learn as many words as those who are word rich → gap widens over time
 - Need to accelerate the vocabulary learning for the “word poor”

Review: Simple View of Reading

Word Recognition

X

Language
Comprehension

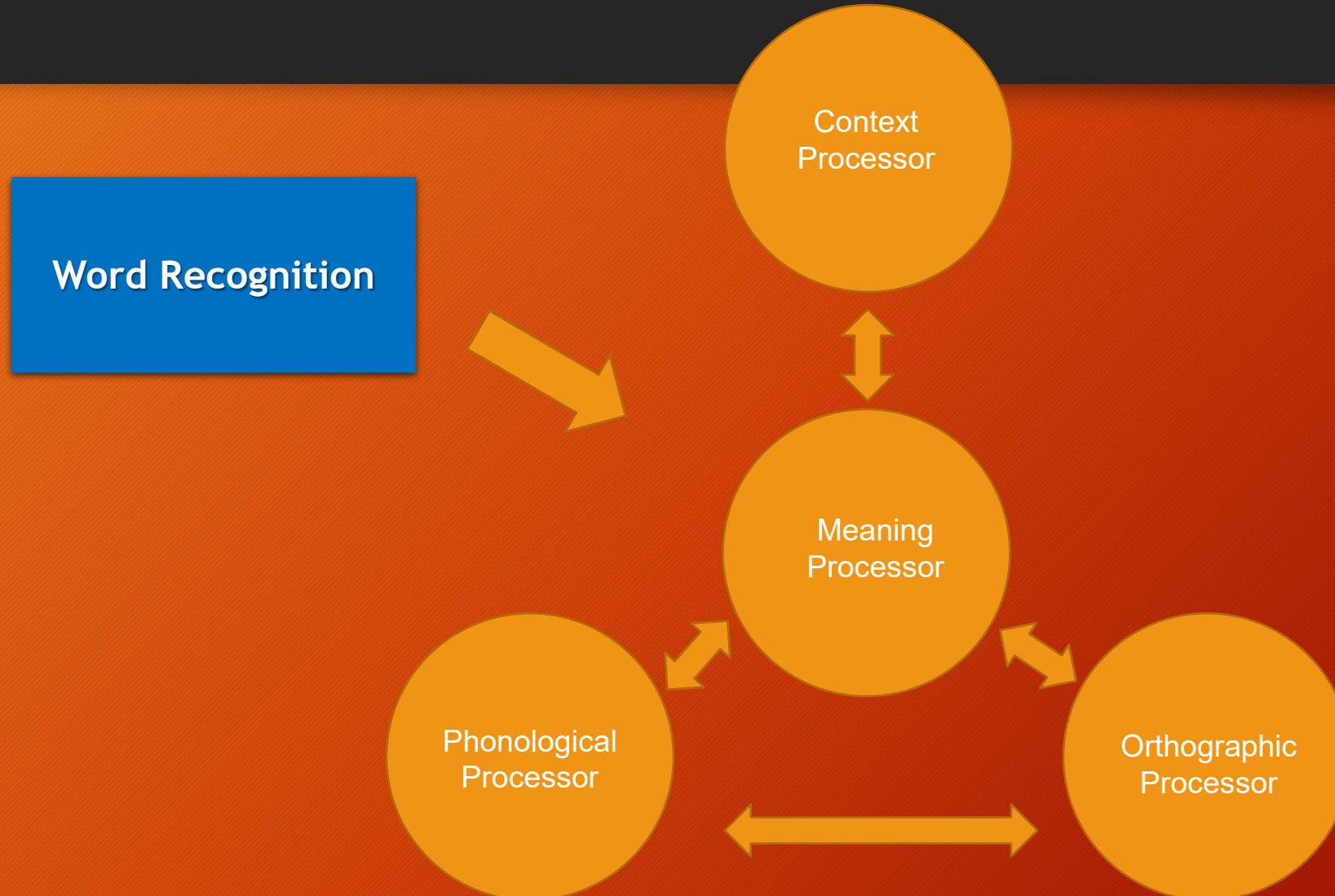
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Reading
Comprehension

WR X LC = RC

1 X 1 = 1

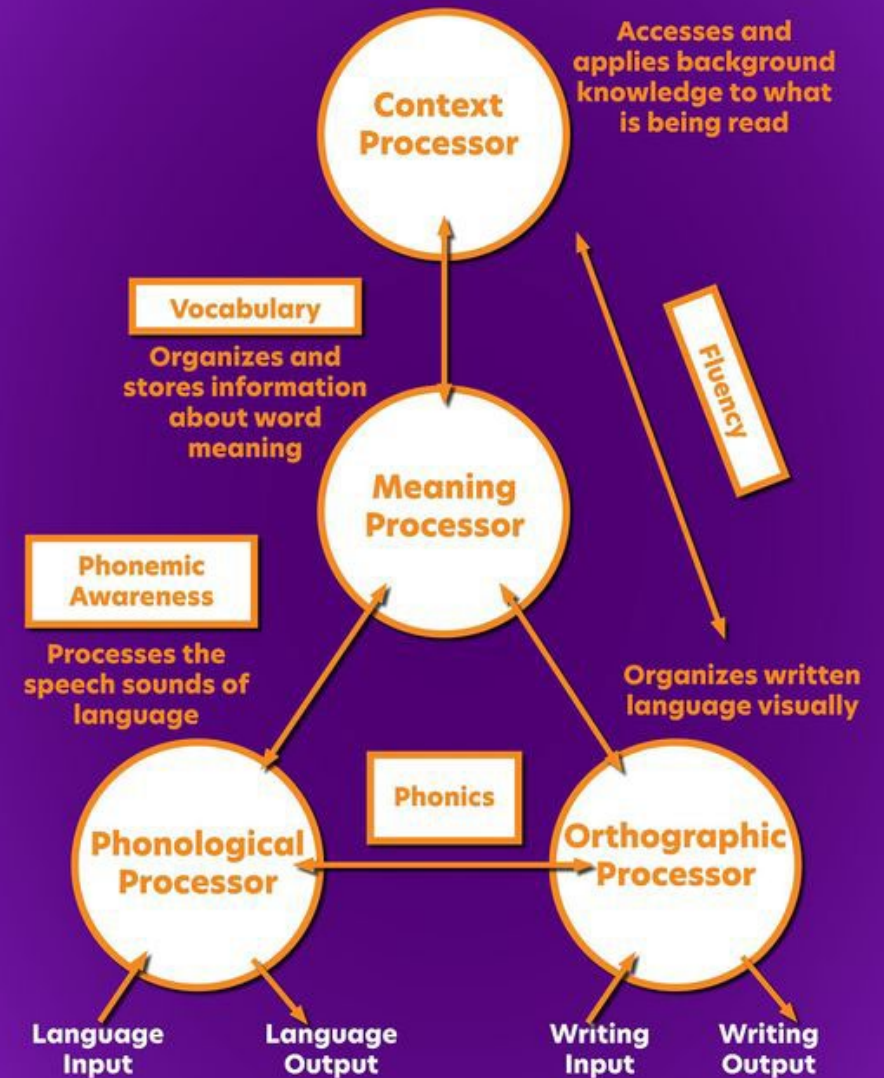
Review: The Four-Part Processing Model



Vocabulary is Part of the Word Recognition Process

- Word Recognition requires associating print with speech at the
 - ✓ Grapheme level
 - ✓ Syllable level, and
 - ✓ Morpheme level
- Automatic word recognition requires associating with meaning!

The Four Part Processor



Review: Scarborough's Rope

Language
Comprehension



Vocabulary is also part of
the language comprehension
process!

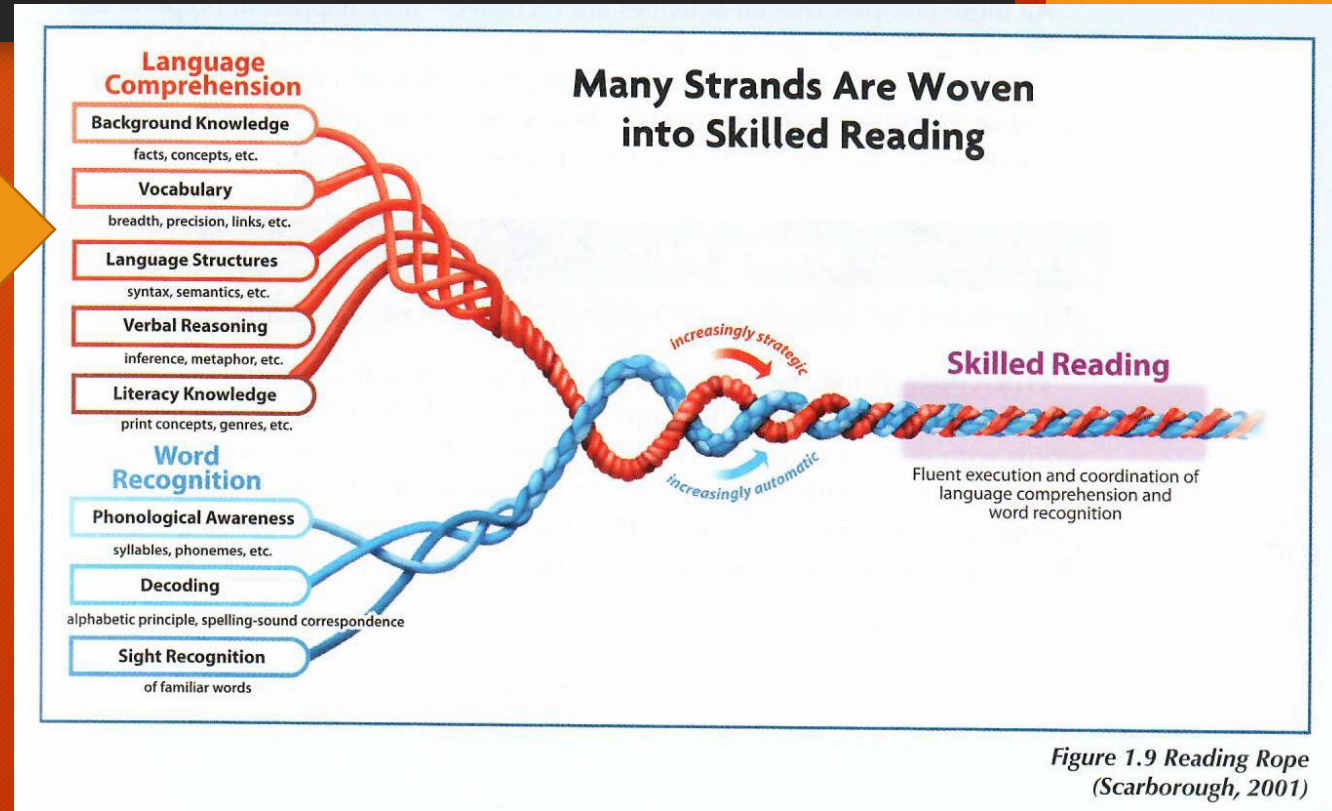
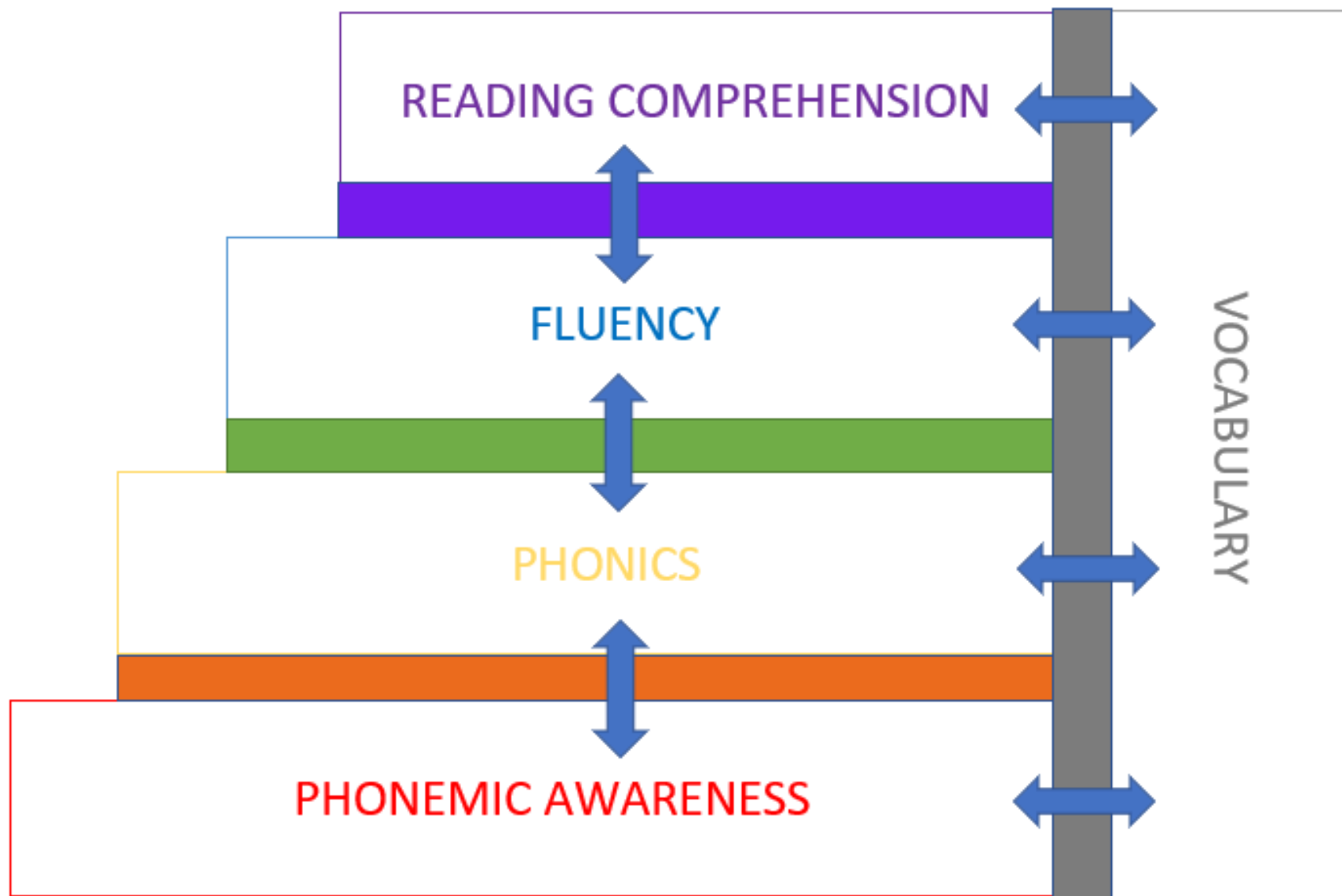
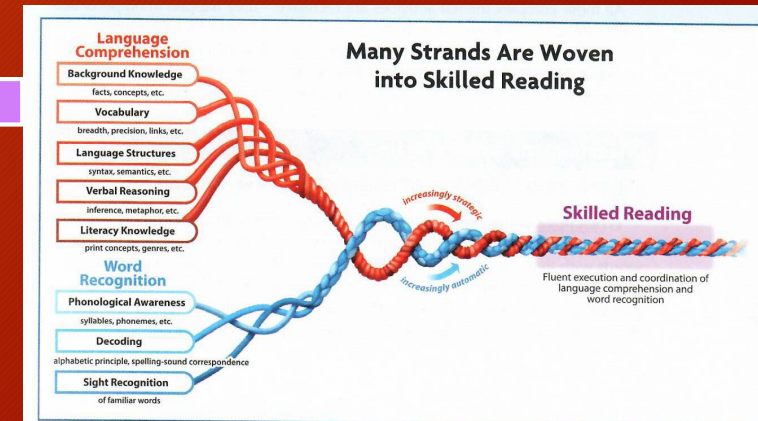
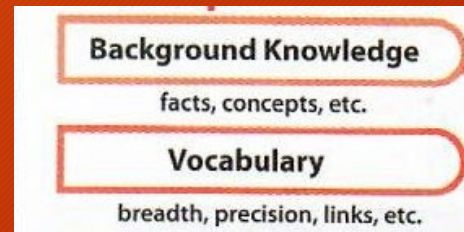


Figure 1.9 Reading Rope
(Scarborough, 2001)



Vocabulary & Reading Comprehension

- ✓ Vocabulary and Background Knowledge are intimately tied together.
- ✓ Vocabulary also overlaps with intelligence/general knowledge.
- ✓ Vocabulary grows → ability to comprehend grows
- ✓ Vocabulary development is a predictor of both reading performance and school achievement
- ✓ Increased vocabulary is related to other subskills (phonemic awareness, phonics)



“All words are pegs to hang ideas on”

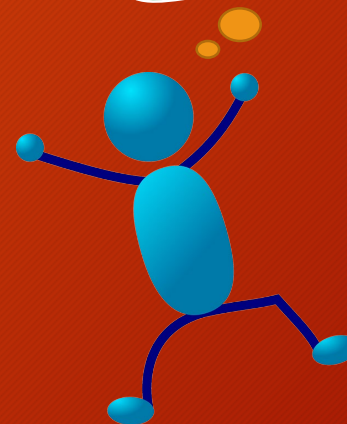
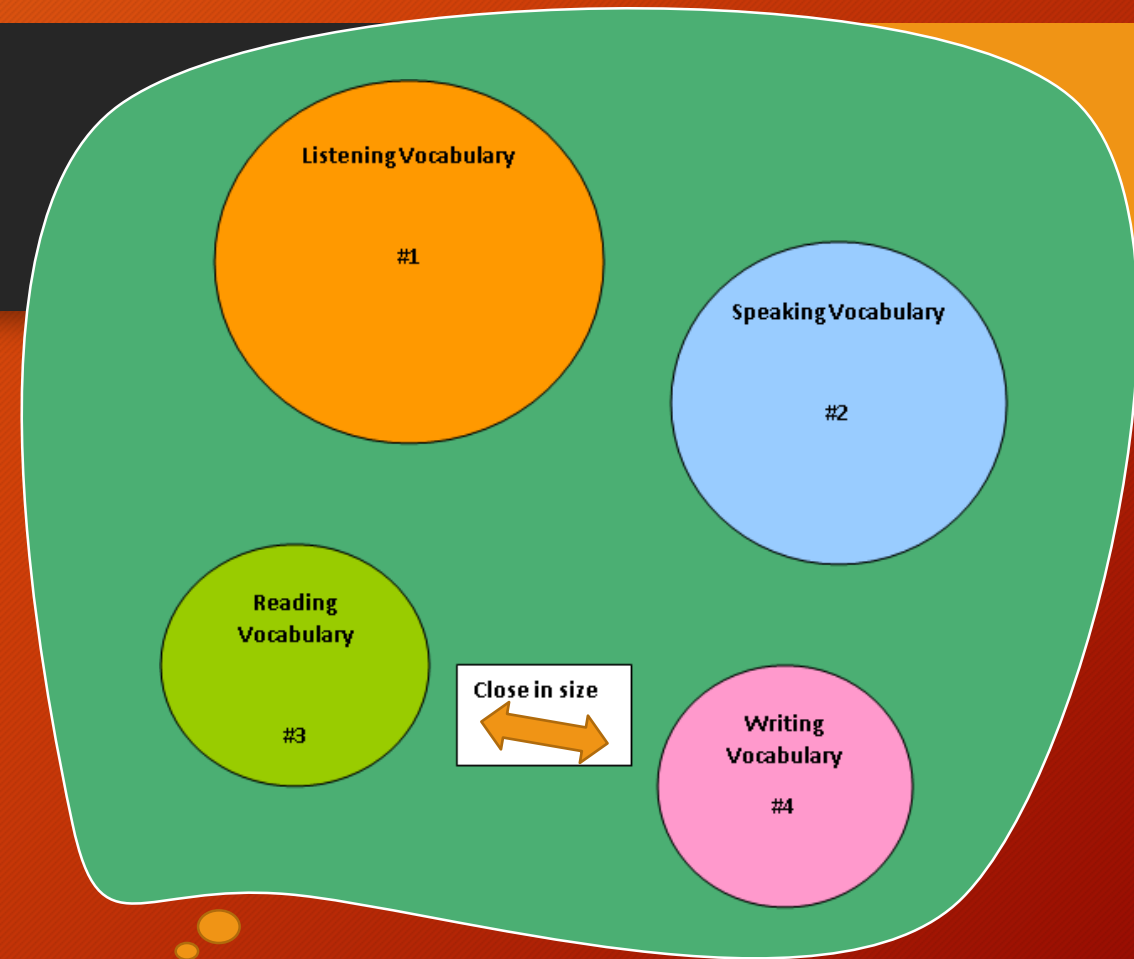
-Henry Ward Beecher

Experiences \leftrightarrow Concepts \leftrightarrow Words

- Words trigger images, concepts, spatial and motor associations, and emotions
- The brain stores word meanings with information about the different sensory-motor attributes of the concepts those words represent

What is Vocabulary?

- **Vocabulary:** a person's knowledge of, and memory for, word meanings.
 - words we use, recognize, and respond to in meaningful acts of communication
- **Four vocabularies:** listening, speaking, reading, and writing
 - Develop breadth and depth in this order



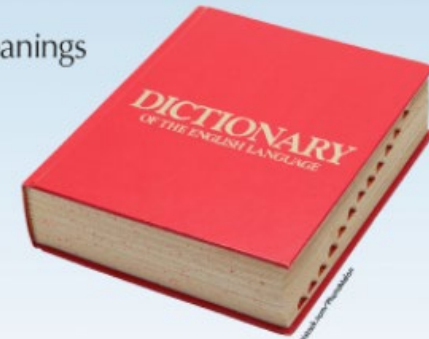
But, as vocabulary grows...

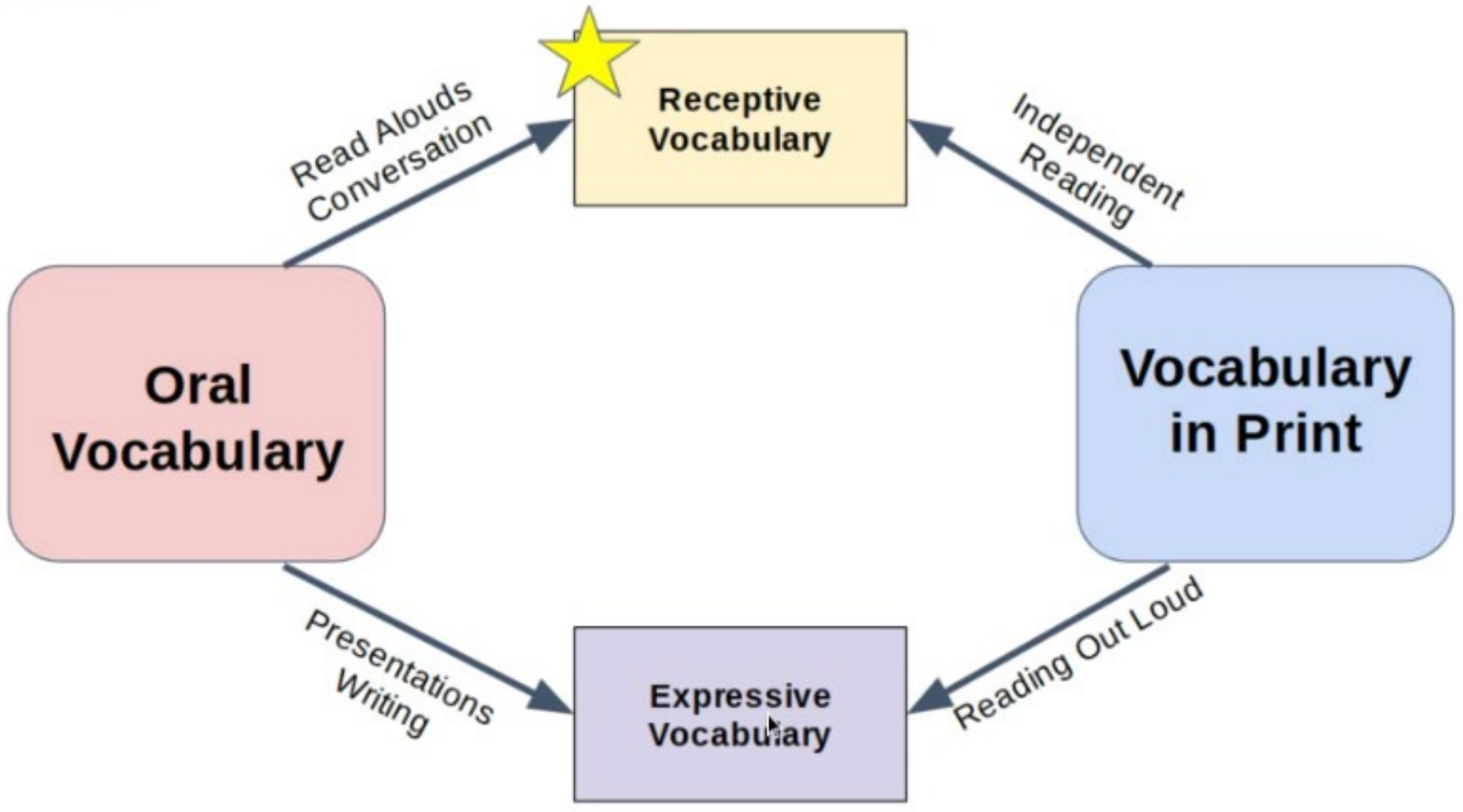


- In the beginning phases of reading:
 - ✓ Students have likely heard more words than they know the meanings of
 - ✓ Students likely know the meanings of many more words than they can read
- **Receptive Vocabulary:** reading and listening vocabularies
- **Expressive Vocabulary:** speaking and writing vocabularies
 - ✓ Because expressive vocabulary is harder to use and because receptive vocabulary can utilize context → typically is smaller than receptive vocabularies

vocabulary: Knowledge of, and memory for, word meanings

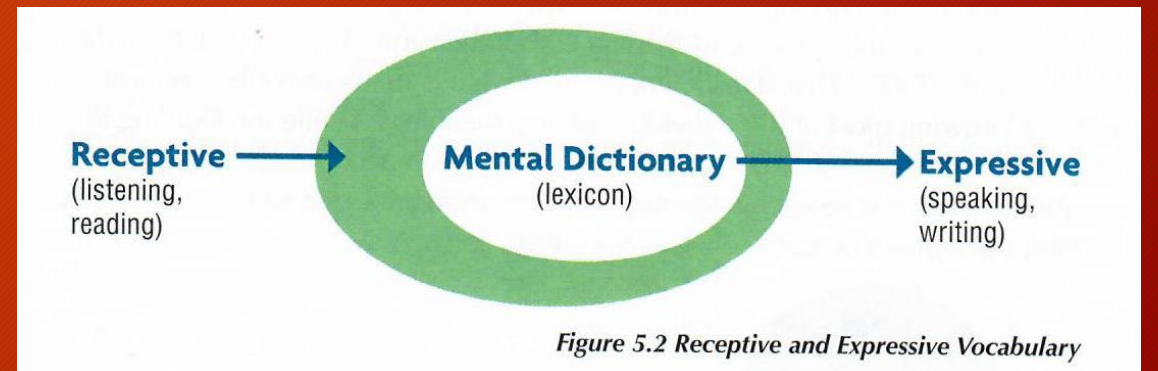
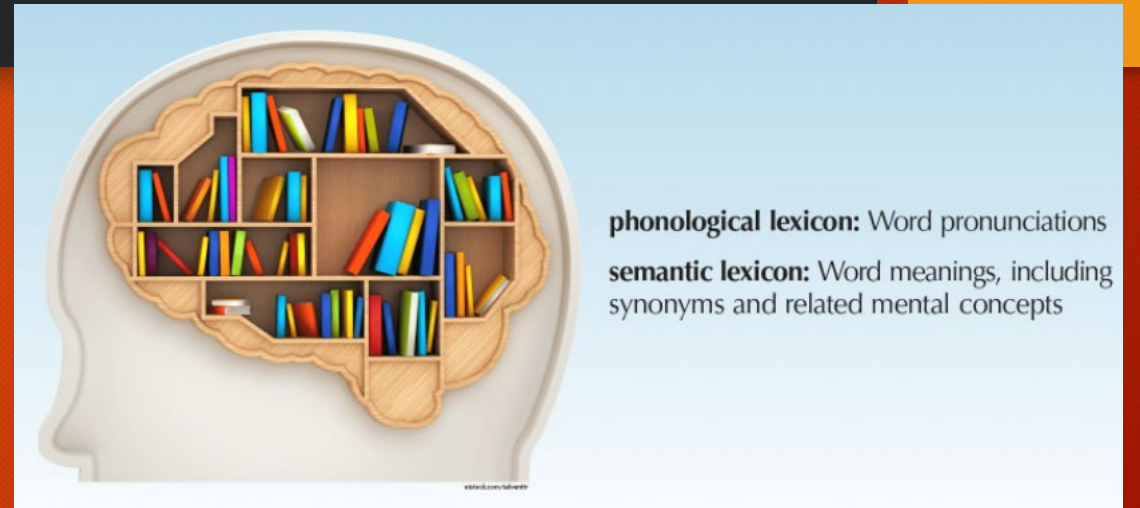
- **receptive vocabulary:** Meanings recognized in the context of oral or written language
- **expressive vocabulary:** Meanings known well enough to use in speaking and writing





Lexicons

- **Phonological Lexicon:** Brain's storehouse of words previously heard, but not necessarily understood
- **Semantic Lexicon:** Brain's "mental dictionary" of word meanings, including synonyms and related mental concepts

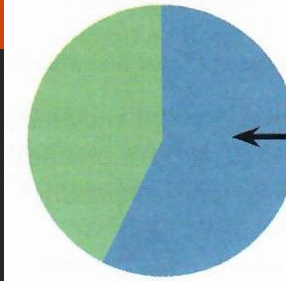


Read This:

Fourth, rhizomes are characterized by a signifying rupture. Rhizomes may break off or be discontinuous, but they will begin again, like ants that “rebound” with new trails when their old ones are destroyed. A signifying rupture works against the “oversignifying breaks” that structure, organize and bound identities. Two kinds of lines need to be described in this relation: lines of segmentarity and lines of flight. Every rhizome contains (oversignifying) lines of segmentarity, according to which it is stratified, territorialized, organized, and signified. Lines of segmentarity...produce stasis, rules of organization, and center-periphery relations (Leander & Rowe, 2006, p. 436).

Did you understand the passage? Why or why not?

Importance of Vocabulary



Vocabulary accounts for approximately 50–60 percent of the variance in reading comprehension (Stahl & Nagy, 2006).

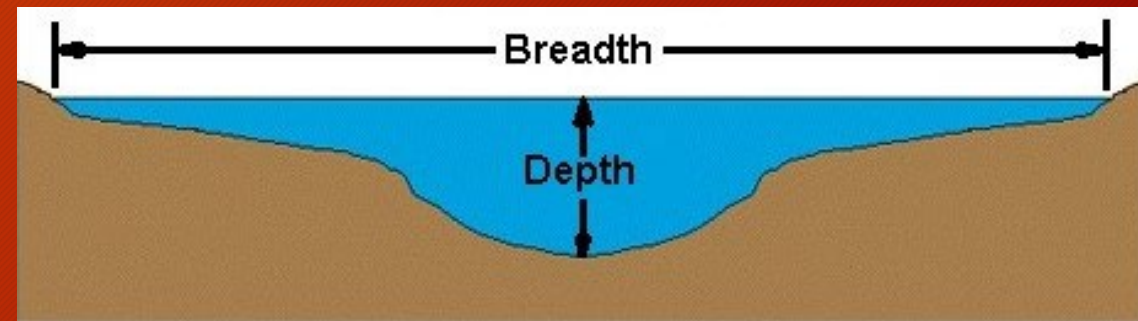
Fourth-Grade Text

- You have to know the individual words in order to comprehend what you are reading. Knowledge of individual words accounts for **50-60%** of the variance in reading comprehension
- Low-Frequency Words: Don't occur very often, but comprehension of the passage depends almost entirely on these words
- High-Frequency Words: Occur often, function words that hold the passage together, but typically aren't critical for comprehension

Once children have mastered the alphabetic code, vocabulary is the most important factor in accounting for a students' ability to comprehend text!

Breadth and Depth of Word Knowledge

- **Breadth:** size and scope of our vocabulary; recognizing a lot of words given context
 - Strong relationship with reading comprehension
- **Depth:** level of understanding that we know words
 - Being able to provide a complete, accurate definition for known words and knowing their multiple meanings
 - Associated with fluent recall of words and ability to categorize them



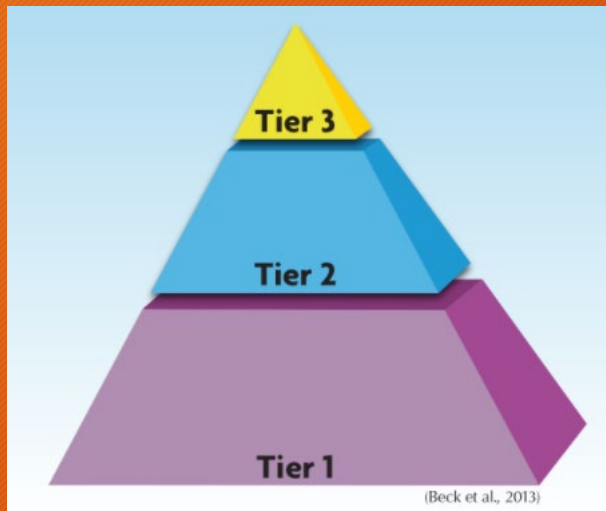
How Can I Increase that Breadth & Depth?

Most instruction involves some combination of looking up definitions, writing them down or memorizing them, and inferring the meaning of a new word from context
→ don't create enough in-depth knowledge to increase comprehension

Students need to experience unfamiliar words in frequent, meaningful, and varied contexts

- ✓ Not just discussing, defining, and writing the words in sentences (Reductionist Perspective)
- ✓ Students need to be involved in *constructing* meaning rather than memorizing definitions
- ✓ A reader who knows a word can **recognize it, understand it, and use that understanding** in combination with other types of knowledge, to construct meaning from a text

Tier I, II, III Words



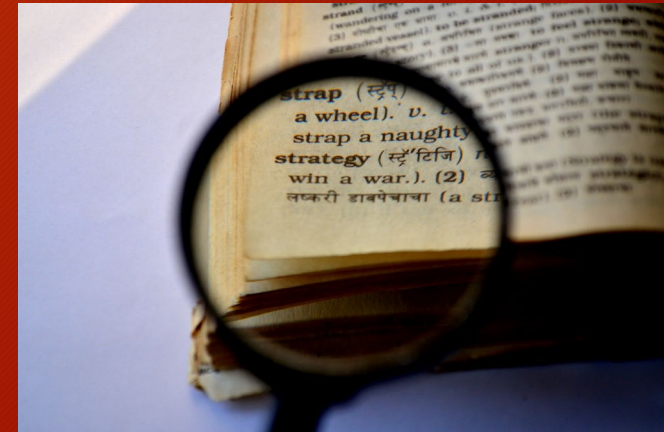
- **Tier 1: Most students know these words.**
 - Are basic, common vocabulary that children learn early (e.g., *sad, laugh, hot*)
 - Are important for high-risk learners and ELs
 - Are usually known by students with normal language development
- **Tier 2: These words should be highlighted to teach explicitly.**
 - Are high frequency, yet more sophisticated and abstract than basic words (e.g., *avoid, fortunate, crafty*)
 - Are central to the meaning of the text
 - Can be applied to discussions across many contexts and experiences
 - Can be defined with other basic words already known (e.g., *avoid* can be defined with *dodge*, *fortunate* can be defined with *lucky*, and *crafty* can be defined with *sly* and *smart*)
 - Should be taught in depth; aim to teach about 300–400 words per year, or 3–5 words per reading selection.
- **Tier 3: These words need only a brief definition in context before moving on.**
 - Are infrequently occurring words, yet essential for understanding content
 - Are likely to be found in text about specific topics or fields of endeavor (e.g., *bridle, reins, withers, mane*)
 - Can be instructed on the spot, when the need arises, using pictures or other contextual supports

What Words Should I Teach?

- Concentrate on 3-5 words in a text
- ✓ Pick words students do not know
- ✓ Pick words that are crucial for understanding the text
- ✓ Choose words that are likely to be found in other readings
- ✓ Teach words that are abstract and difficult to learn without explicit instruction
- ✓ Tier II words

Set a goal to teach 400 words per year with explicit instruction

Plan to provide at least 10 exposures to each word through listening, speaking, viewing, reading, and/or writing



Sound, Structure and Meaning

- English is a morphophonemic language- based on 'sound'
 - English is an alphabetic language
- English is a morphophonemic language-based on meaning
 - Morphology is about meaning
- Every strategy should focus on all 3 components:
 - ✓ Sound
 - ✓ Structure
 - ✓ Meaning



3-Step Multisensory Lesson

How Many Words Should I Teach at a Time?

- A common approach is “A Word A Day.” Is that enough?

NO!

- It is suggested that students in 3rd grade and beyond learn the meanings of **2,000-3,000** new words every year! (Nagy et. al, 1997, 2006)



A teacher can only teach some of these words directly and explicitly.

Teach 10 words in depth per week → the rest must be learned informally during listening and reading activities

Incidental Instruction

- Both implicit and incidental word-learning processes are vital to students' vocabulary growth
- Teachers are responsible to teach a few hundred words thoroughly each school year
- The rest of the words have to be learned incidentally in one of three ways:



1. Listening to the language of teachers/other adults



2. Being read to



3. Reading independently

Listening to Language

- Learning word meanings occurs rapidly from birth through adolescence when children hear good language models
- Exposure can be highly effective to not very effective depending on the model provided



Non-verbal ← → Verbal

Reading Aloud

- Books have more uncommon and content-rich words than any other medium of language
- Pause while reading, relate new concepts to known concepts, and engage children in conversations about the words in books
- Use “stretch” texts that stimulate students’ language growth



Table 5.3: Frequency of Rare Words in Printed Texts, Television, and Speech
(Based on Hayes & Ahrens, 1988)

| Category | Source | Rare Words per 1,000 |
|--------------|--|----------------------|
| Printed Text | Scientific journal abstracts | 128.0 |
| | Newspapers | 68.3 |
| | Popular magazines | 65.7 |
| | Adult books for recreational reading | 52.7 |
| | Children’s books, elementary | 30.9 |
| | Preschool picture books | 16.3 |
| TV | Prime-time adult shows | 22.7 |
| | Prime-time children’s shows | 20.2 |
| | <i>Mr. Rogers’ Neighborhood</i> and <i>Sesame Street</i> | 2.0 |
| Adult Speech | Expert witness testimony in court | 28.4 |
| | Conversation between college-educated adults | 17.3 |

Reading Independently

- By 3rd or 4th grade, students should be able to read fluently enough to read independently
- Book reading is correlated with vocabulary growth and academic achievement
- Students need well-stocked classroom, school, and community libraries



Creating a Language-Rich Classroom

- The way a teacher talks and uses language → directly affects student vocabulary growth
- The quality of teachers' oral language, especially the number of unusual words used by the teacher, is more important than the total number of words spoken by the teacher

Typical: "I think Eliza is sick."

Enriched: "Eliza is missing from school today; I anticipate that she is under the weather, or ill."

Typical: "Line up at the door for lunch."

Enriched: "Create a line at the exit; it's time to enjoy a feast!"

Typical: "Good job on your math problem."

Enriched: "You've done a stellar job solving your math problem."

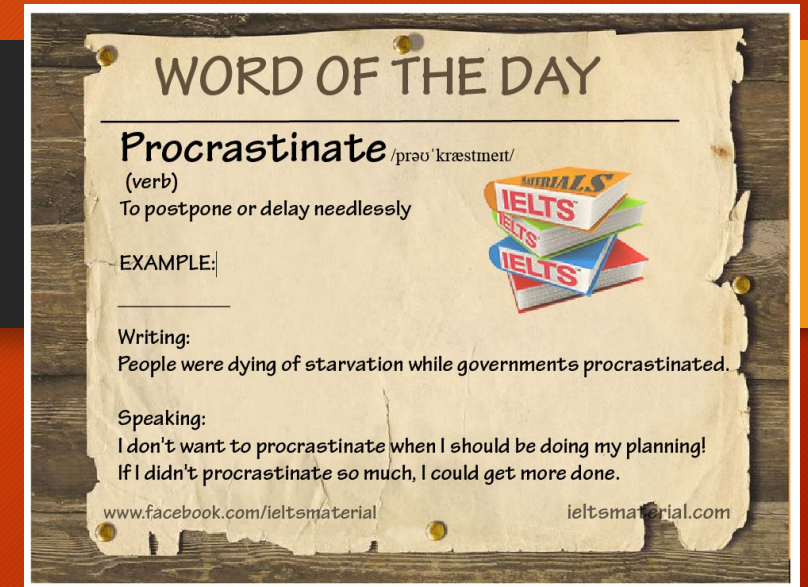
Typical: "I can't wait for recess; it's nice out!"

Enriched: "I anticipate that recess will be exciting; the weather is splendid."

- ✓ Upgrade Classroom Talk
- ✓ Model More Sophisticated Language when Rephrasing Student Responses

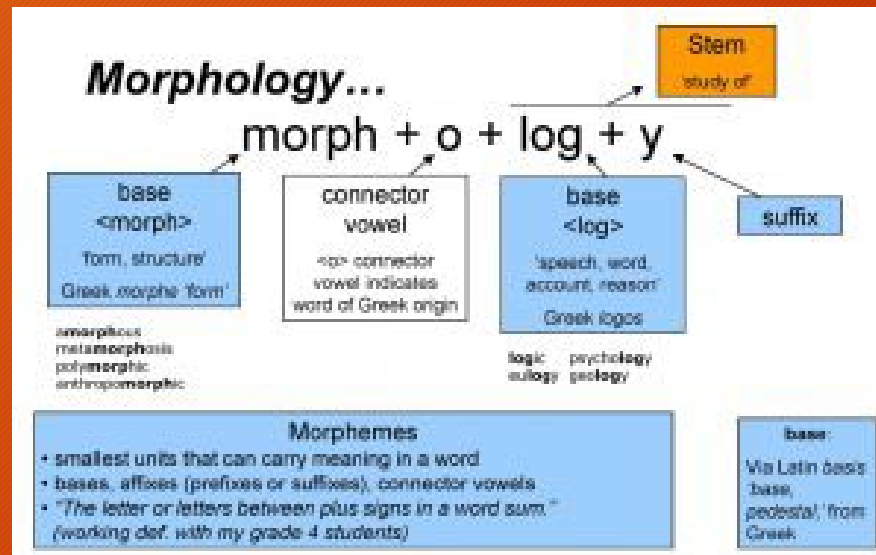
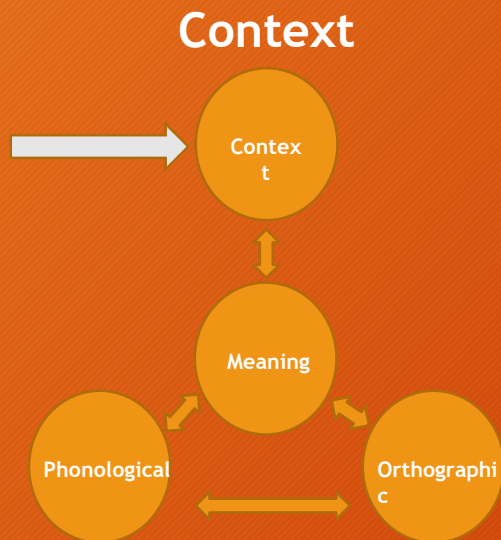
Foster Word Consciousness

- ❖ Word of the Day
- ❖ Locate examples of new words used in contexts outside of school
- ❖ Assign students as “Language Detectives,”
- ❖ Awarding students who are “caught” using a chosen word(s) in a conversation or class discussion
- ❖ Vocabulary Word Nomination



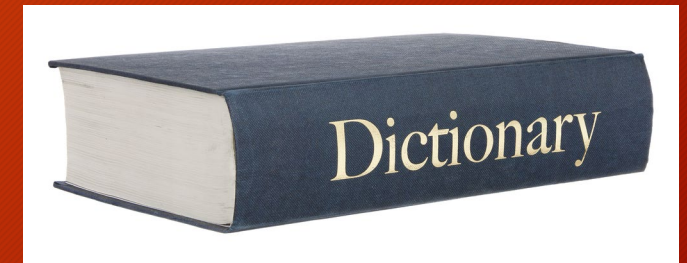
- ❖ Hold a “Words in Action” Assembly
- ❖ Make a Target Word Chart
- ❖ Wear a Word
- ❖ Create a “How Well Do I Know It?” Bulletin Board to show student progress in word knowledge
- ❖ Celebrate Word Learning
- ❖ Collecting and Posting Vivid or

Independent Word-Learning Strategies



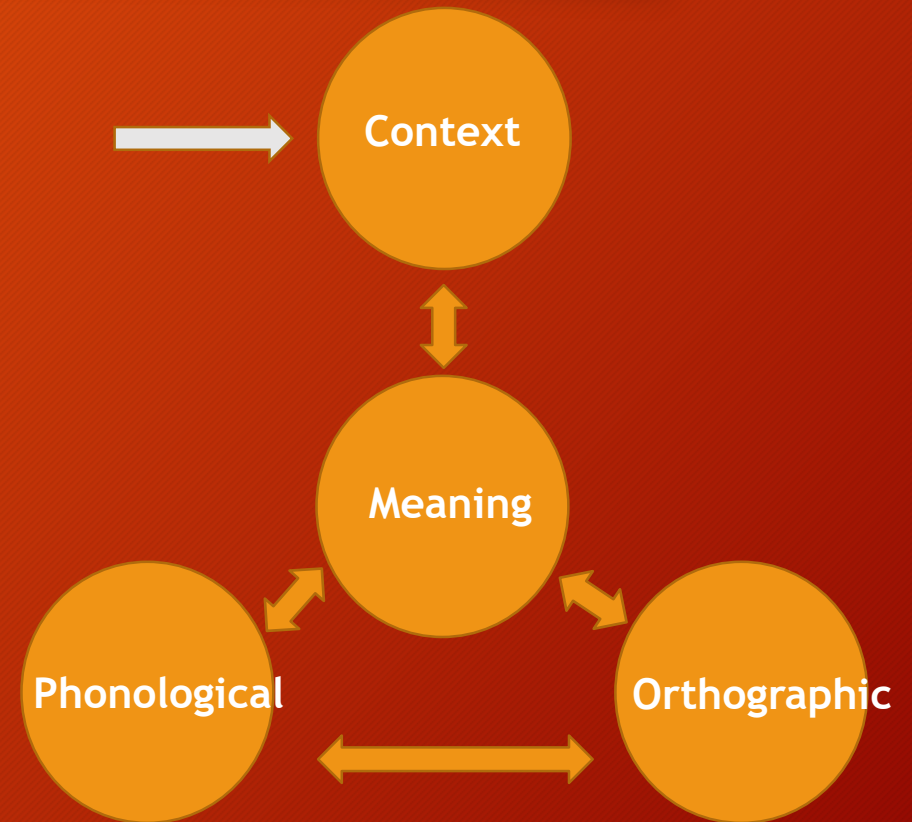
Morphological Analysis

Dictionary Resources



Using Context

- Context is best if it:
 - ✓ Paraphrases what a word means
 - ✓ Gives descriptive detail, or
 - ✓ A synonym is used
- Students should be encouraged to utilize context in combination with other sources of information
- Students cannot always rely on context to learn meanings of words



Morphological Analysis

Morphology is the study of meaningful units of language and how they are combined in word formation.

Morphological awareness refers to one's familiarity with meaning units within words, as well as one's reflections on or conscious application of that knowledge to reading and spelling.

Why Teach Morphological Analysis?

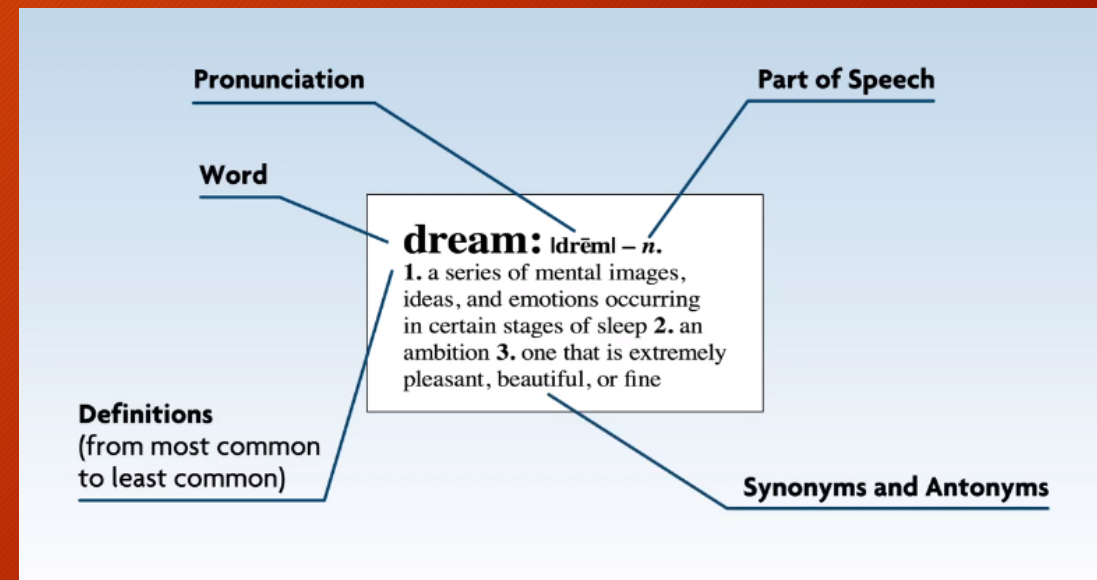
1. *Improved decoding skills*
2. *Improved encoding skills*
3. *Vocabulary expansion*
4. *Improved comprehension*
5. *And, because its fun!*

“Morphology is ‘the glue that holds decoding and comprehension together.’”

-Joanne Carlisle

Dictionaries

- ❖ Should be available in every classroom
- ❖ But, students need to be taught the layout of a dictionary and how to best use them
- ❖ Dictionary limitations
 - ✓ Not enough examples of the word's use in context
 - ✓ Have abbreviated definitions
 - ✓ Definitions don't explain how to use the word socially or academically
 - ✓ Have more than one definition—which one is correct?
- ❖ Use dictionaries during or after learning new words



Question

A third-grade teacher's reading instruction includes sources from multiple content areas. During a science lesson, students are reading a trade book about plants; the book contains many new and difficult vocabulary words, such as "chlorophyll," "germinate," and "photosynthesis." Which of the following teaching activities will best help the students develop an understanding of the new words?

- A. Making lists of words from the science book to post on a word wall in the classroom
- B. Planning direct instruction using multimedia methods to introduce words in rich contexts
- C. Having students assume definitions for the new words and relate them to words they already know
- D. Giving the students Venn diagrams to sort the new vocabulary into well-defined categories

Answer

Correct Answer: B

Option (B) is correct. Direct instruction is the best and most highly recommended method for helping students learn totally new Tier 3 words from specific content areas. The meanings of such words are well determined and consistent and can be illustrated using robust contexts and multimedia methods.

Question

A fourth-grade teacher works with a small group of students who decode well but demonstrate poor comprehension. Through various informal assessments, the teacher determines that the students do not effectively apply knowledge of prefixes, suffixes, roots, and bases when words change form, and therefore students often lack understanding of academic text. Which THREE of the following activities best help students improve morphological analysis for better reading comprehension?

- A. Combining word parts written on cards to form new words
- B. Making lists of words with similar affixes in a vocabulary notebook
- C. Completing a cloze by using a bank of word parts to fill in blanks in sentences
- D. Examining word affixes and roots on semantic map posters
- E. Studying words with common bases and roots for a spelling quiz

Answer

Correct Answer: A, C, D

Options (A), (C), and (D) are correct. The act of physically manipulating word parts to form longer words requires students to think about where the word part naturally occurs across multiple contexts (beginning, middle, or end) and to put it in places that create meaningful words. Completing a cloze activity using a bank of word parts requires students to think about what words are required to complete each sentence while also providing them support to construct the words. By mapping out unfamiliar words on poster-sized paper, students are breaking words into parts and analyzing their meanings. The poster remains behind as a visual reminder of what was discovered while deconstructing the word and can help in deconstructing future words with similar affixes/bases/roots.

Question

Which of the following is the most effective strategy for building and extending students' vocabulary knowledge?

- A. Showing students how to use roots and affixes to determine meanings
- B. Asking students to use unfamiliar words in a sentence
- C. Asking students to look up the definitions of unfamiliar words to determine meanings
- D. Requiring students to memorize the spelling of unfamiliar words

Answer

Correct Answer: A

Option (A) is correct. Teaching students word-analysis skills such as identifying roots and affixes can help them determine the meanings of unfamiliar words they encounter.

Question

A kindergarten teacher prepares to use an interactive read-aloud to enhance students' vocabulary knowledge. Which of the following best describes a guideline the teacher should adhere to when selecting the vocabulary words the students will learn?

A. Words that are abstract in meaning should be chosen, because they require more frequent exposure before students can conceptualize them.

B. Words that are used multiple times should be chosen, because they provide students with repeated exposure in a meaningful context.

C. Words that represent a variety of disparate themes should be chosen, because they help to broaden students' background knowledge.

D. Words that are unique to an individual text should be chosen, because they are not likely to be seen elsewhere by students.

Answer

Correct Answer: B

Option (B) is correct. By exposing the students to a limited number of core words repeated often and in varied contexts, the teacher increases the chance that the students will retain the meaning of the words.

Question

A teacher provides students with sentences to use to determine the meanings of words according to their contexts. Which of the following sentences best fulfills the teacher's purpose?

- A. "Decomposers" are beneficial to the environment.
- B. Please "reanalyze" the errors in the assignment.
- C. "Omnivorous" animals prefer eating both plants and meat.
- D. My "radius" is broken, but the doctor says the injury is not life threatening.

Answer

Correct Answer: C

Option (C) is correct. The sentence provides clues that help define the word “omnivorous.”

Question

When using a newspaper article for a shared reading activity, no students in the class can explain the meaning of the word “absence” in the following passage. *Sam was chosen because he is considered the best investigator of mechanical failures. The bridge collapsed overnight, yet the video shows no people, animals, or warnings of a problem. Sam read the report twice, yet he still could not overcome the absence of cause and gain a clear understanding about the factors that explained the disaster.*

Based on the passage, which of the following teacher-directed questions is most appropriate for students learning to identify the meaning of unknown words?

- A. Which definition in the dictionary explains the meaning of the word “absence”?
- B. Was Sam confused because there were no people or animals near the bridge?
- C. How would you use the word “absence” in a sentence?
- D. Do the surrounding words offer a clue about the meaning of the word “absence”?

Answer

Correct Answer: D

Option (D) is correct. When readers attempt to decipher the meaning of a new word, it is often useful to look at what comes before and after that word. The surrounding words can give readers helpful context clues about the meaning and structure of the new word, as well as how it is used.

Question

The instructional strategy list-group-label is most effective for teaching which of the following?

- A. Vocabulary
- B. Phonics skills
- C. Concepts
- D. Phonological awareness

Answer

Correct Answer: A

Option (A) is correct. List-group-label is a vocabulary strategy that has students sort and categorize words, allowing them to connect words and make them more meaningful.

Question

While reading a short passage from a realistic fiction story aloud to the class, a student reads the following sentence.

“I didn’t think what I had done was so bad, but my mother sure knows how to make a mountain out of a molehill.”

The teacher focuses the students’ attention on the author’s use of the phrase “to make a mountain out of a molehill” as an example of figurative language. Which of the following teacher actions is the most appropriate next step in helping students understand the phrase?

- A. Having students recall other texts in which an author has used other unique linguistic structures
- B. Asking students to decide whether the literal meaning of the phrase is the author’s intended message
- C. Adding the phrase to a student-created poster of author’s tools used to convey meaning by using language in interesting ways
- D. Requiring that students write explanations of their personal reactions to the author’s purpose for selecting the phrase to convey meaning

Answer

Correct Answer: B

Option (B) is correct. It is good practice to first have students discuss the literal meaning of a figurative language structure and then ask students to consider whether they think the author actually intended to convey a message through a literal interpretation.

Question

The following sentence appears in a nonfiction book that fourth-grade students are reading in class. Unfamiliar words selected by students are underlined in the excerpt. The duck-billed platypus is a peculiar animal in that its snout, which does not look like a nose, helps it recognize sources of food.

Which of the following instructional methods will best help students understand and retain the meaning of the new words?

- A. Asking students to look up the definitions of the words and write them in their reading journals
- B. Helping students find easily understood synonyms for each word and write them in place of the new vocabulary
- C. Advising students to examine the use of each word in context and narrow connotations for the words to a singular context
- D. Discussing each new word by asking students probing questions that require the students to support their answers with reasoning

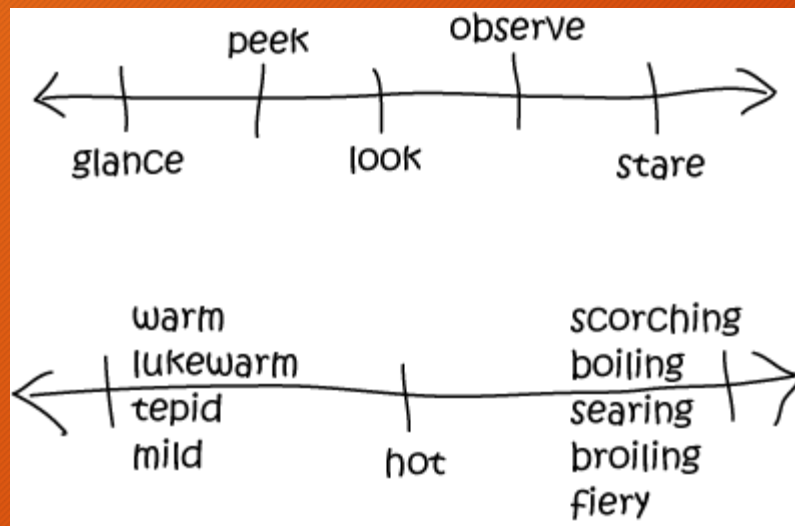
Answer

Correct Answer: D

Option (D) is correct. Asking students a question using each vocabulary word and requiring them to support their answers with reasoning during discussion helps the teacher determine whether the students understand the meaning of the words and can justify their thoughts related to it.

Question

A fifth-grade teacher wants students to create semantic gradients like the ones below to expand their understanding of known vocabulary words.



The teacher provides students with a children's thesaurus to help them complete the assignment. Which of the following is a major limitation of using only a thesaurus for this activity?

- A. The students may not be able to spell the words correctly.
- B. A thesaurus does not distinguish between shades of meaning.
- C. Students cannot distinguish between synonyms and antonyms.
- D. The thesaurus does not have a wide variety of words in it.

Answer

Correct Answer: B

Option (B) is correct. A thesaurus lists synonyms for a given word. While these words generally are close in meaning, they may not be exact. A thesaurus does not delineate between shades, or degrees, of meaning. This means a dictionary needs to be used in conjunction with a thesaurus when dealing with shades of meaning, as in the activity shown.

Question

A teacher designs a lesson on black holes as part of a unit on the solar system. Before reading the following paragraphs to the students, the teacher underlines words that are likely to be unfamiliar to them.

A black hole is a region in space where the pulling force of gravity is so strong that light is not able to escape. The strong gravity occurs because matter has been pressed into a tiny space. This compression can take place at the end of a star's life. Some black holes are a result of dying stars.

Because no light can escape, black holes are invisible. However, space telescopes with special instruments can help find black holes. They can observe the behavior of material and stars that are very close to black holes.

Question Cont'd

Which of the following instructional strategies is most appropriate to use to develop students' deep understanding of the meaning of the targeted underlined words?

- A. Having students refer to a dictionary or science Web site to locate the etymology of each underlined word, study it, and record it in a reading journal
- B. Having students create a visual organizer that displays a definition, synonyms and antonyms, examples and nonexamples, and one or two contextual uses for each underlined word
- C. Asking students to independently locate each underlined word in a reference source, write the definition of each word using their own words in a journal, and share personal findings with peers
- D. Asking students to add the underlined words to personal word banks in their journals, use each word in a sentence, and prepare note cards to use for periodic review and practice activities

Answer

Correct Answer: B

Option (B) is correct. The technique described in the option is that of word mapping. Word maps encourage students to acquire a deep understanding of targeted vocabulary and the relationships of words to other words. Recording how a word is used in context is a cognitive strategy that supports recall of concepts that the words represent.

Question

A fifth-grade student applies metacognitive strategies learned during instruction while reading a novel of choice during free-reading time. While conferencing with the teacher about the novel, the student mentions that there are many unfamiliar vocabulary words in the text. Which of the following metacognitive strategies is best for the teacher to suggest when helping the student decipher unknown vocabulary?

- A. Making notes in the margins of the novel
- B. Using context clues and knowledge of affixes
- C. Completing a self-created graphic organizer while reading
- D. Going back to reread text for clarification

Answer

Correct Answer: B

Option (B) is correct. Remembering to use context clues and knowledge of affixes is a metacognitive strategy for understanding unfamiliar vocabulary while reading.

Question

Ms. Kirkpatrick, a fifth-grade teacher, writes the following sentences on the whiteboard.

While walking through the woods, I saw a vixen and her six pups. I was amazed at the beauty of the red pelt that covered her body.

The teacher begins a lesson on ways to determine the meaning of the unknown underlined word in the sentence by sharing ideas aloud with students while mentally processing information the author provides. Ms. Kirkpatrick then writes her thoughts on the board, indicating that what the unknown word describes must be an animal, a female, and have red fur.

The teacher's instructional strategy helps students to develop word knowledge by figuring out the meaning of an unknown word using primarily which of the following types of context clues?

- A. Giving information about word meaning by using signal words that show contrast to the unknown word
- B. Looking for other words or phrases that define an unknown word directly and clearly in the sentence in which it appears
- C. Restating a word's meaning by using other terms in a sentence with similar meanings to the unknown word's meaning
- D. Unlocking a word's meaning that is not directly described but needs to be inferred based on information given by an author

Answer

Correct Answer: D

Option (D) is correct. The teacher models the thinking process involved in using context clues to determine an unknown word's meaning by inferring a definition through looking for clues the author gives that do not directly define the word.

Constructed Response

Directions: Read the scenario below and then respond to the TWO tasks in the answer sheet booklet. The suggested time to spend on this question is 10 minutes.

Scenario

A fourth-grade teacher plans to have students read an informational article about animals that live in the Serengeti National Park in Tanzania. In preparing for instruction, the teacher recognizes that students may not have previously encountered a variety of the multisyllabic, domain-specific words in the text and plans to provide instruction in strategies to decode and determine the meaning of the new vocabulary. The teacher's plan also includes providing instruction in the features of text students will encounter to support students' comprehension of the material as they read.

Tasks

- I. Identify and describe TWO word-learning skills for which the teacher can provide explicit instruction to help students decode and determine the meaning of unfamiliar multisyllabic, domain-specific vocabulary.
- II. List TWO text features students may encounter that the teacher can introduce before students read the informational article. Briefly explain the purpose of each text feature listed.