Summer Literacy Series Part 3

Vocabulary Across Disciplines and Best Practices



SCARBOROUGH'S (2021)

Reading Rope

TYPICAL GRADE

3+

Language Comprehension

Background Knowledge
(facts, concepts, etc.)

Vocabulary
(breadth, precision, links, etc.)

Language Structure
(syntax, semantics, etc.)

Verbal Reasoning
(inference, metaphor, etc.)

Literacy Knowledge
(print concepts, genres, etc.)

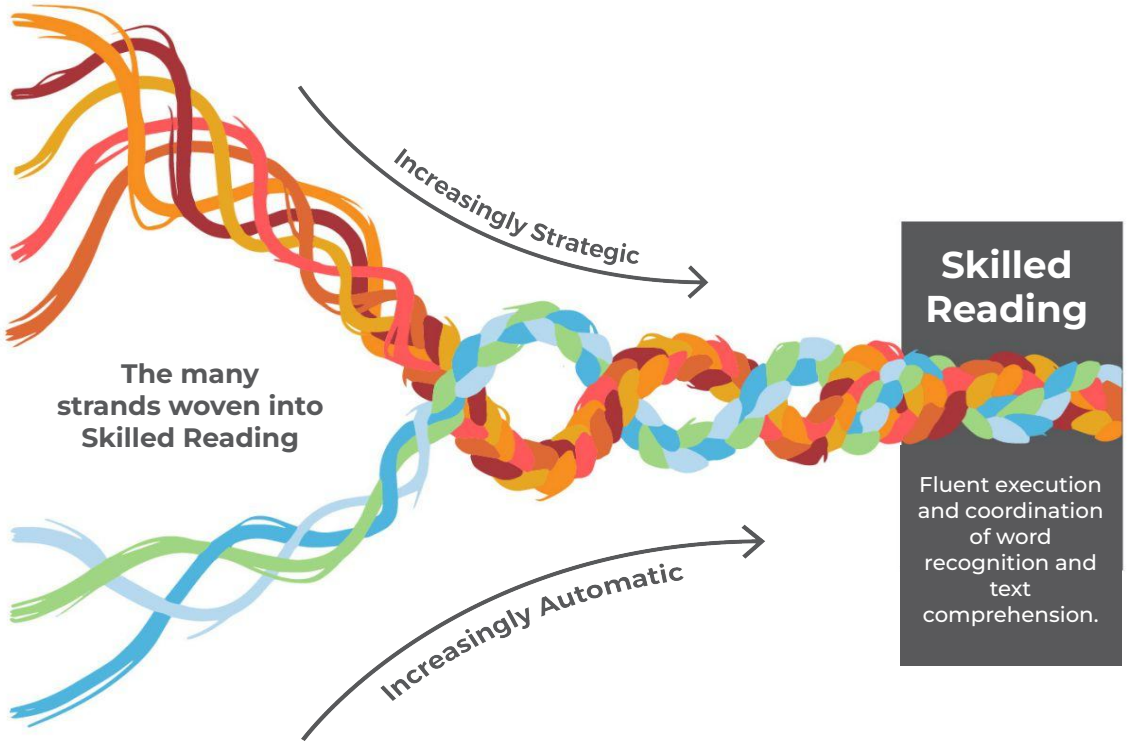
K-2

Word Recognition

Phonological Awareness
(syllables, phonemes, etc.)

Decoding
(alphabetic principle, spelling-sound correspondence)

Sight Recognition
(of familiar words)



Fundamentals of Literacy Instruction and the Five Essential Components of Reading

National Reading Panel (2000).

Knowledge of Words and Word Parts	Oral Reading Fluency	Comprehension	Writing
Phonemic Awareness, Phonics	Vocabulary	Strategies	Purpose
Decoding	Accuracy	Text Structures	Process
Contextual Analysis	Automaticity	Metacognitive Strategies	Product
Semantics	Prosody	Learning from Responding to Texts	
Morphology			

Students need to read and write EVERY day!



Effective Vocabulary Instruction: NRP Key Findings

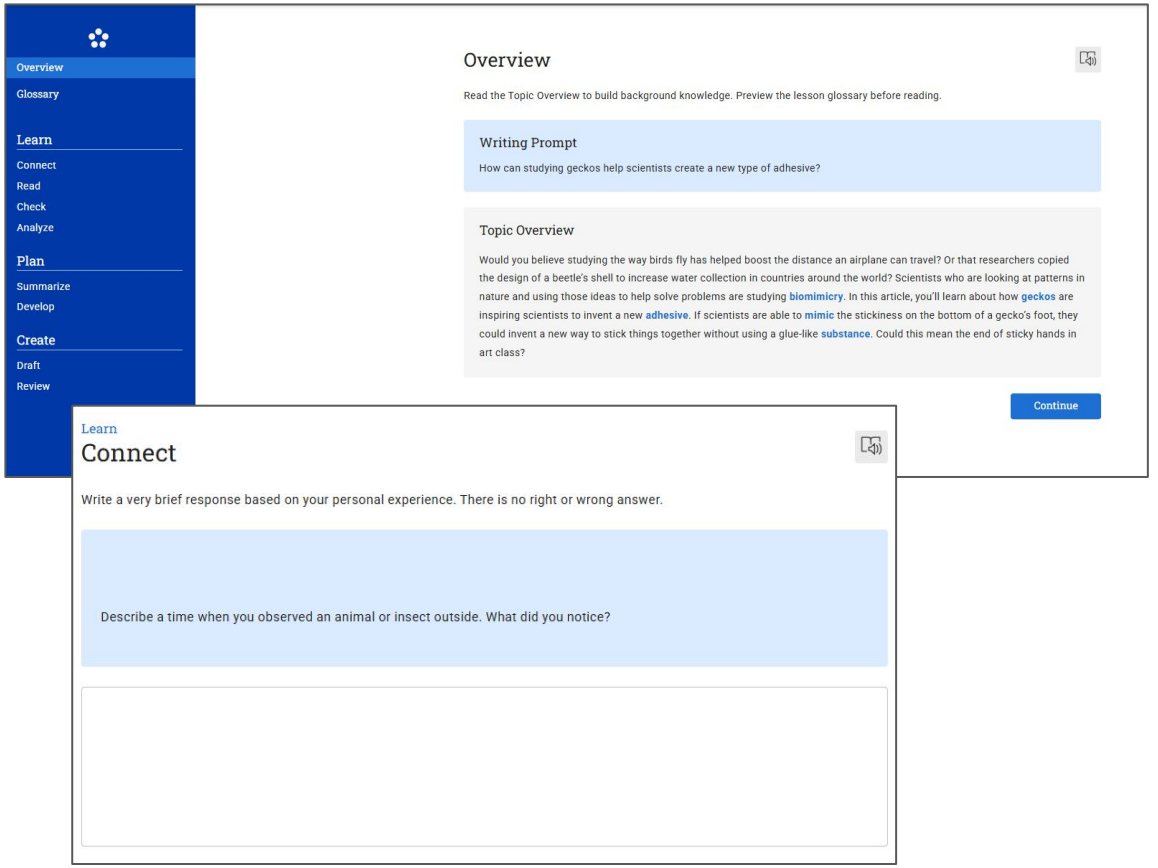
- **Teach Words Directly**: Provide explicit instruction for key vocabulary in texts.
- **Expose Words Often**: Use repetition and multiple encounters across contexts.
- **Use Rich Contexts**: Teach words through meaningful, content-based learning.
- **Clarify Tasks**: Restructure vocabulary activities to ensure clear understanding.
- **Promote Active Learning**: Engage students in interactive word-learning tasks.
- **Use Technology**: Incorporate digital tools to enhance vocabulary development.
- **Support Incidental Learning**: Encourage vocabulary growth through reading and experience.
- **Vary Instructional Methods**: Combine strategies for greater impact—no one-size-fits-all.

From National Reading Panel (2000), page 4–4.

Background Knowledge

Prior Knowledge and Experience

- Does the reader possess adequate prior knowledge and/or experience regarding the topic of this specific text to manage the material that is presented?
- Are there any **explicit connections** that can be made between what content the reader will encounter in this specific text and other learning that may occur in this or another class?
- Does the reader possess adequate prior knowledge and/or experience regarding the **vocabulary** used within this specific text to manage the material that is presented?
- Does the reader possess adequate knowledge of and/or experience with the **genre** of this specific text to manage the material that is presented?



What does the sentence below say?

“The haystack was important because the cloth ripped.”

What does this sentence mean?

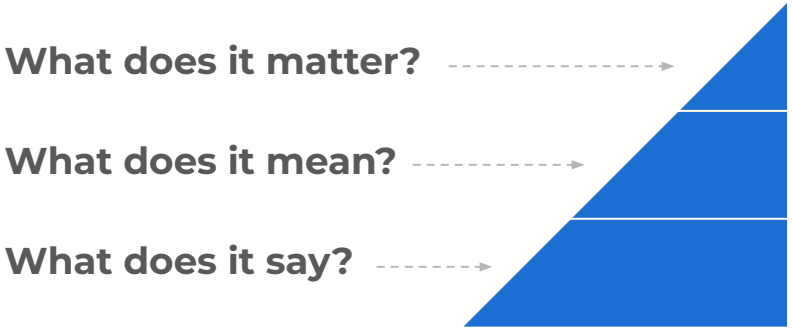
Decoding Only Gets Us So Far

“The haystack was important because the cloth ripped.”

This sentence is about parachuting.

It is a good example of how decoding words and sentences doesn’t necessarily make the text accessible. Simple words and sentences about unknown topics are inaccessible.

We Also Need Knowledge + Skills



Rehearse the Application of Grade Level Literacy Skills with Close Reading and the Writing

Build Background Knowledge with Additional Reading Practice

Learn Phonemic Awareness and Decoding with Our Foundational Reading Program

ThinkCERCA students develop the skills to:

- understand what text says (Decoding)
- understand what the text means (Comprehending)
- and analyze and respond to ideas that matter (Analyzing, Evaluating, and Creating Constructed Responses.)

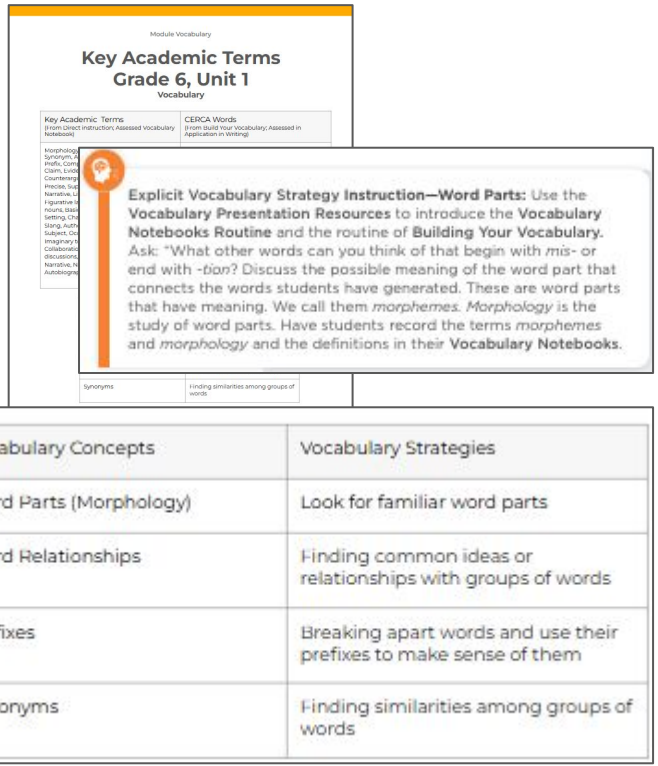
Word Recognition

Using Morphology to Teach Vocabulary

Vocabulary - Glossary & CERCA Words

Which Words Can I Use to Teach Morphology?





Vocabulary Concepts	Vocabulary Strategies
Word Parts (Morphology)	Look for familiar word parts
Word Relationships	Finding common ideas or relationships with groups of words
Prefixes	Breaking apart words and use their prefixes to make sense of them
Synonyms	Finding similarities among groups of words

Unlocking Word Meaning: How Affixes Transform Words

Suffixes, Prefixes, and Roots

Prefixes	Root	Suffixes
ac - to	**cept**	**s**- plural
ex - from	to take, hold, seize, capture	**ed**- past tense
		ing- continuous state
		ion - act, state

Suffixes, Prefixes, and Roots

Morpheme Mapping Steps: Exceptions

Step	What to Do	Example: Exceptions	Model
Recognize	I don't know what the word means.	"What does *exceptions* mean in this sentence?"	Circle or highlight the word.
Analyze	Break the word into morphemes.	**ex-** (out) + **cept** (take) + **-ion** (act/state) + **-s** (plural)	Use a morpheme chart or word-part guide.
Think	Use the parts to think about the meaning.	"Maybe it means *the act of taking something out*—so something that doesn't follow the rule."	Explain your thinking.
Check	Look at the context in the sentence.	The candidate who wins any given state (with exceptions for Maine and Nebraska) -- even by only a few votes -- gets all of that state's electoral votes.	Ask: Does my definition make sense?

Using Morphology to Understand Vocabulary

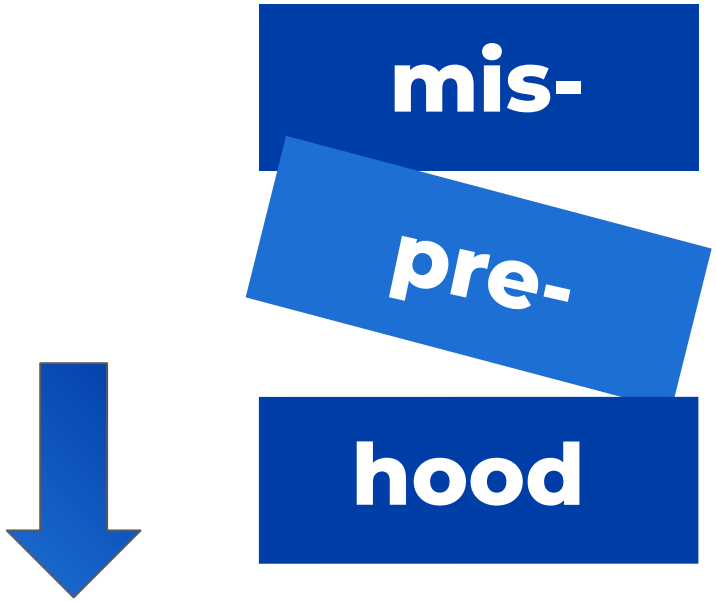
Same Root, Different Meaning: Accept vs. Except

*“I will **accept** all of your ideas **except** the one about skipping vocabulary instruction.”*

We often confuse words which sound similar and yet their meanings can be very different.

Most Common Affixes in English

Prefixes	Suffixes
in- un- mis- dis- fore- re- de- pre- a-	-ed -ing -s -es -er -or -y -able -ible -hood -ship -ion



List of common morphemes

Word Relationships - What Are Word Families?

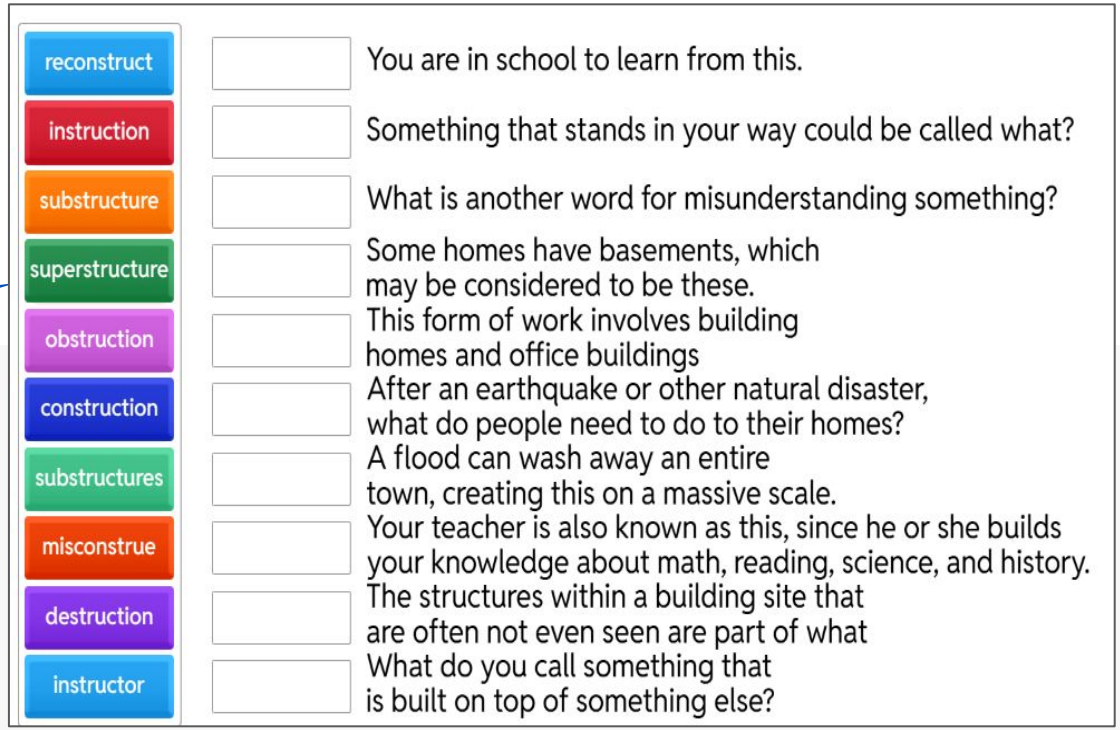
How Shared Roots Create Meaning Connections Across Words

A **word family** is a group of words that share a **common root or base word**.

Learning word families helps students:

- Understand unfamiliar words in context
- Build connections across subjects
- Develop vocabulary breadth and depth

Can you identify the Latin root word?

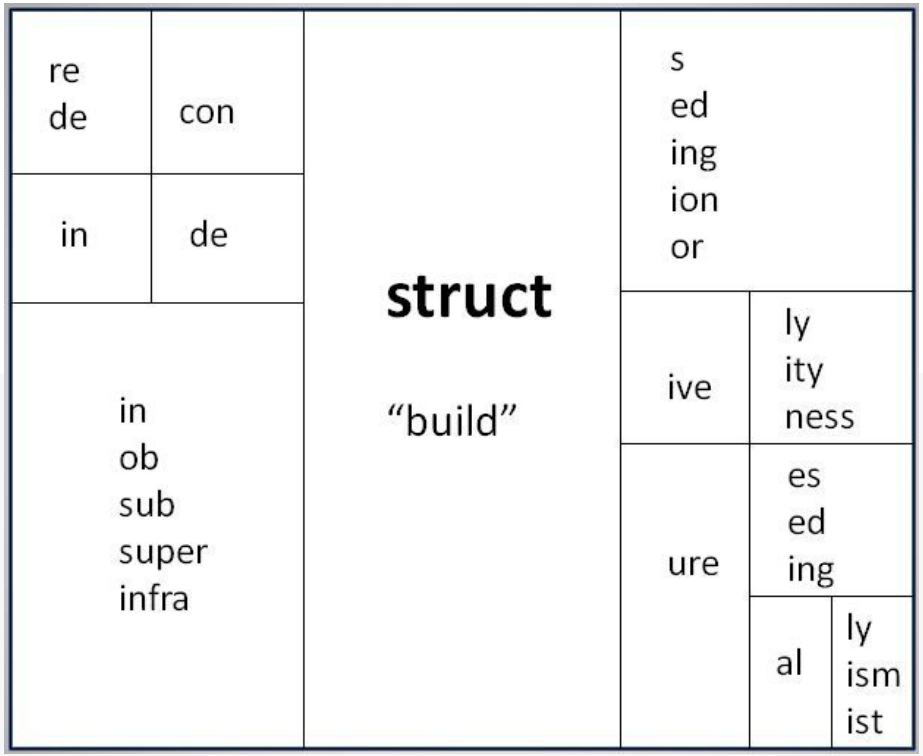


Modeling a Word Family

Use Morphology to Make Meaning Visible

Teaching one root introduces students to 5+ academic words with shared meaning and pattern recognition!

How many new words can you “construct” using a prefix, suffix or both?



Language Comprehension

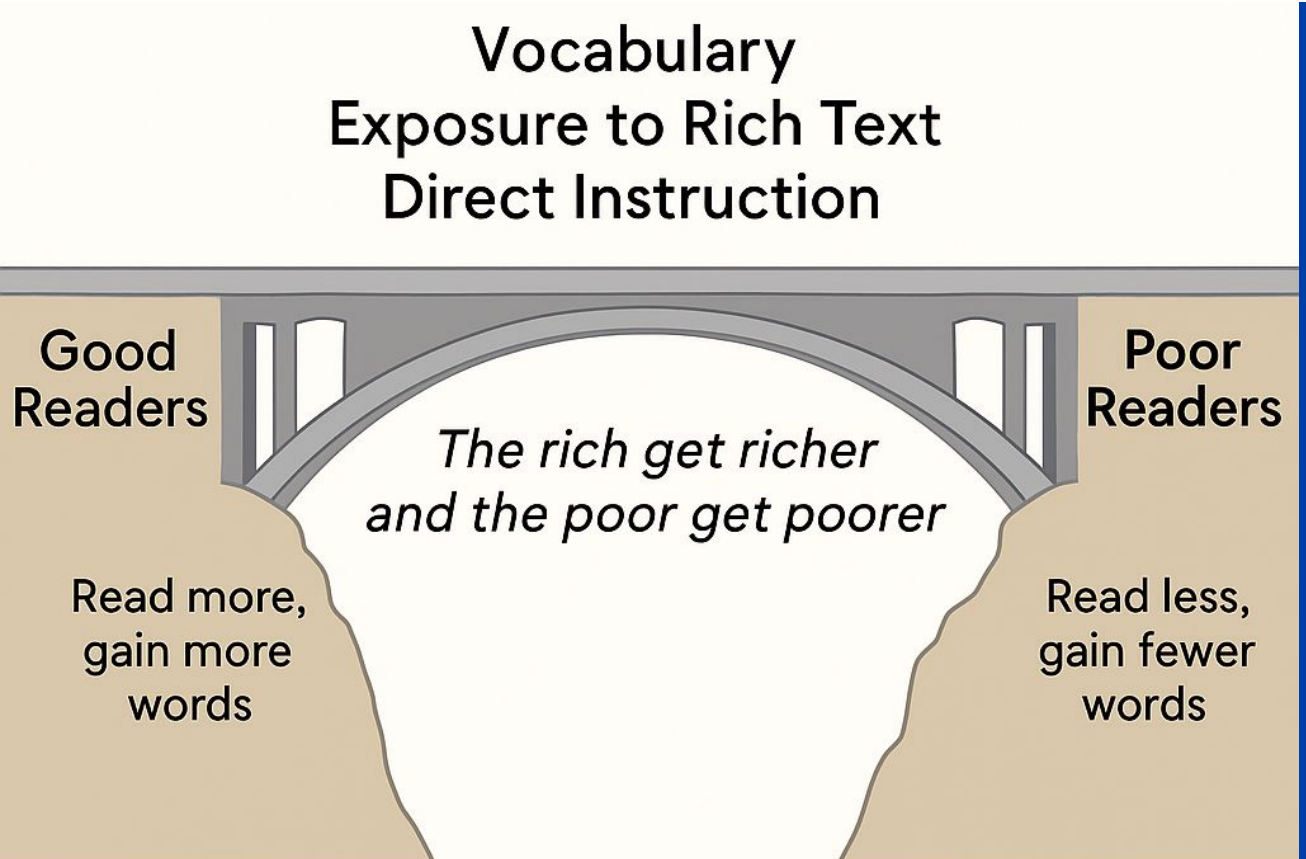
Background Knowledge, Vocabulary, Language Structure, Verbal Reasoning, Literacy Knowledge

Vocabulary and Comprehension

“Vocabulary and comprehension are so closely related that it is debatable if they should even be separate components of reading. Without attaching meaning to words, decoding and “reading” becomes pointless. Vocabulary serves as the bridge between the word-level processes of phonics and the cognitive processes of comprehension.”

- Teaching and Learning Vocabulary, Kamil and Hiebert 2005

The Matthew Effect



The relationship between vocabulary and comprehension: Reading comprehension influences the growth of vocabulary knowledge during the school years

Stanovich K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. Reading Research Quarterly, 21(4)

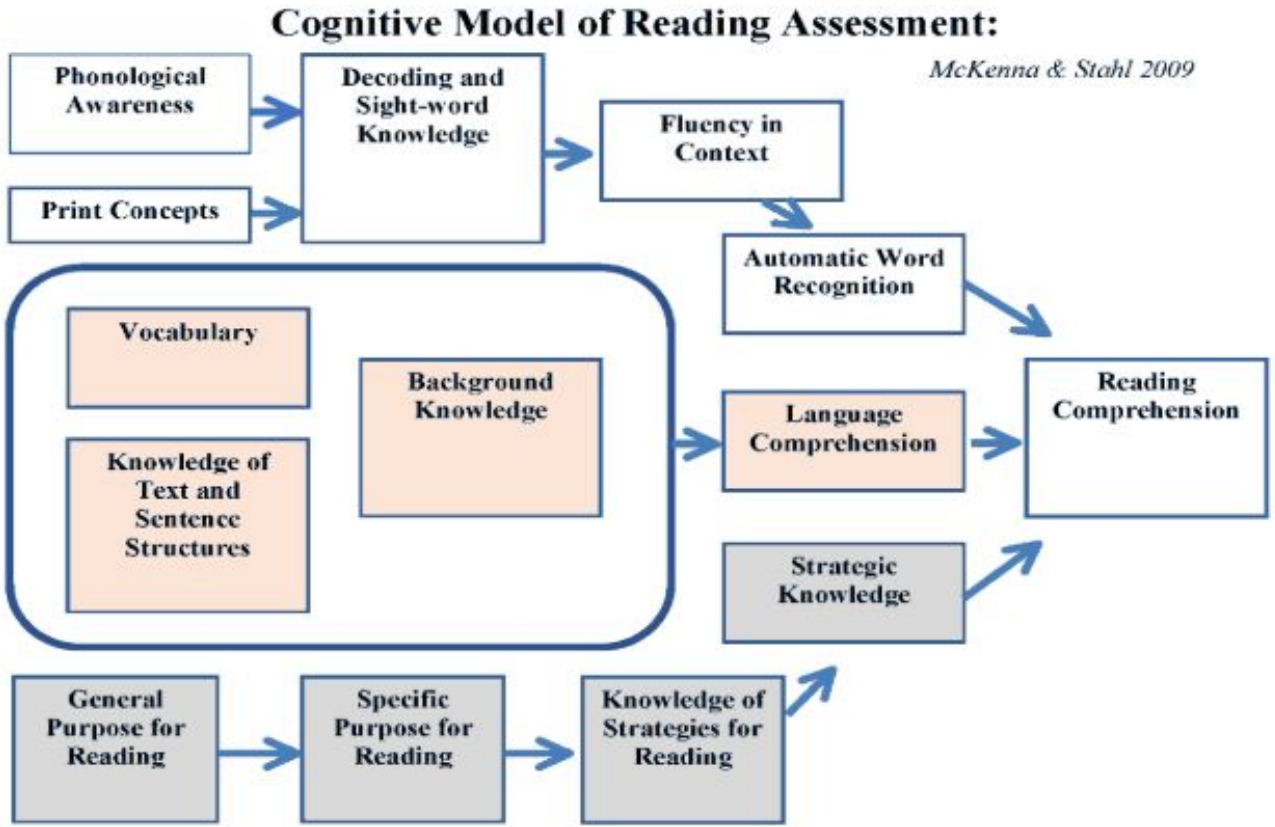
What the Research Says

Children in households of professional parents have..

Expressive vocabulary 2x larger than working-class parents.

Receptive vocabulary 5x larger than children from the lowest incomes.

Hart, B., & Risley, T. R. (1995). Meaningful differences in the everyday experience of young American children. Paul H Brookes Publishing.



Developing Expressive and Receptive Vocabulary

Understanding Language & Vocabulary Types

Expressive Vocabulary Using	Receptive Vocabulary Understanding
• *Words a student can use in writing or speaking* • *Learned through explicit instruction and practice* • *Active, intentional use* • *Supports oral language and writing*	• *Words a student can understanding when reading or listening* • *Developed through listening, reading, and context* • *Passive, recognition-based understanding* • *Supports reading comprehension*

The Vocabulary Learning Task Is Huge

- The average third grader knows something like 15,000 words.
- The average sixth grade student knows something like 25,000 words.
- The average high school graduate knows something like 50,000 words.

Graves, M. F. (2006). The Vocabulary Book: Learning and Instruction. Teachers College Press.

Vocabulary in Complex Thinking

“A person who knows more words can speak, and even think, more precisely about the world. A person who knows the terms scarlet, crimson, azure, and indigo can think about colors in a different way than a person who is limited to red and blue.

Words divide the world; the more words we have the more complex ways we can think about the world.”

- *Teaching Word Meanings*, Stahl & Nagy

Explicit vs. Implicit Vocabulary Instruction

Why Balance Matters

"Students will *implicitly* gain a large vocabulary by intense exposure to rich language, interspersed with brief discussion of meanings, furthermore they believe that it's more efficient to spend time listening and reading interesting materials." - E.D. Hirsch

Age in Years	Vocabulary
1 to 1½	Toddlers develop around a 20-word vocabulary during this time.
2	By the time a child is 2 years old, he/she will have a 200–300-word vocabulary.
3	Vocabulary grows to be about 900–1,000 words by the time a child is 3 years old.
4	The typical 4-year-old child will have about a 1,500–1,600-word vocabulary.
5	By the time a child reaches school age and heads to kindergarten, he/she will have between a 2,100- and 2,200-word vocabulary.
6	The 6-year-old child typically has a 2,600 word expressive vocabulary (words he or she says), and a receptive vocabulary (words he or she understands) of 20,000–24,000 words.
12	By the time a child is 12 years old, he/she will understand (have a receptive vocabulary) of about 50,000 words.

Explicit

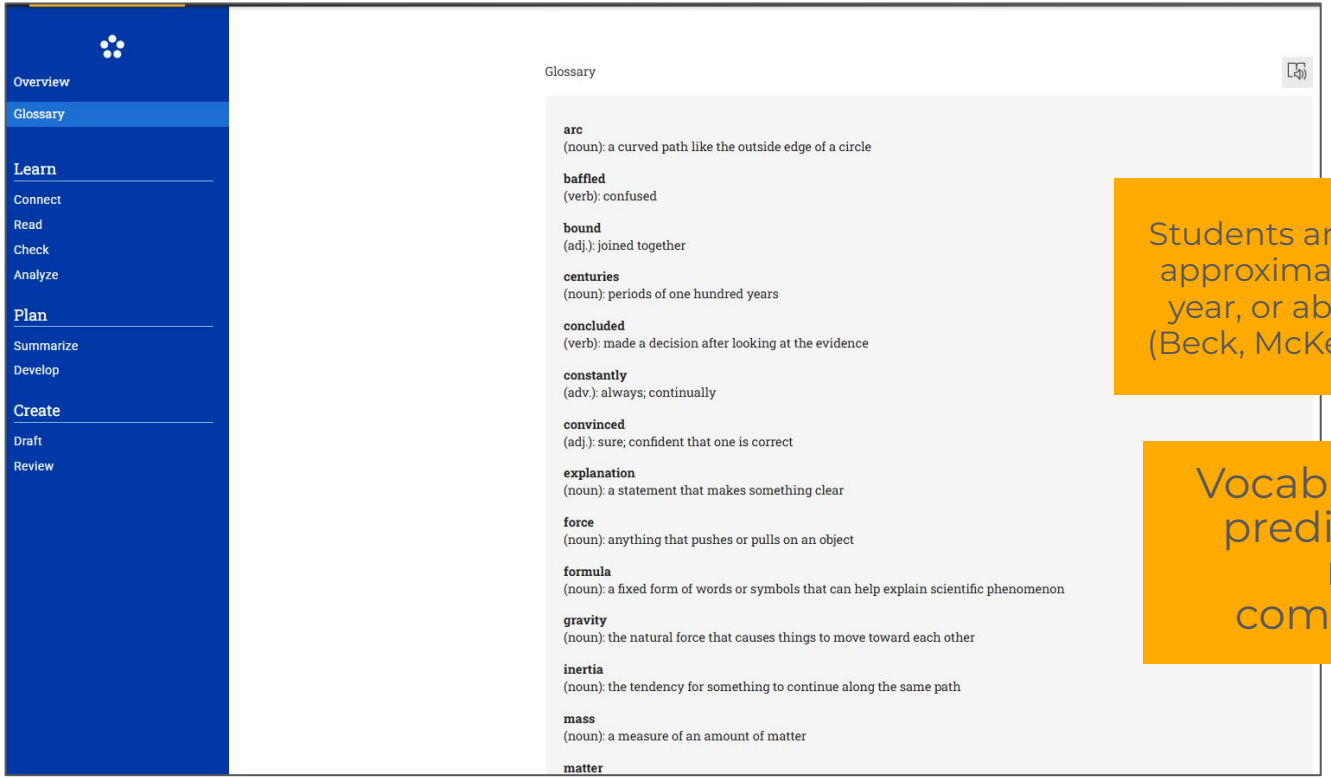
- Teaches specific words directly
- Should be strategic and selective
- Less efficient long-term if used alone
- Choose words across contexts
- Students can learn 15 new words a day (ages 2-17)
- Adult word growth slows without intentional learning

Implicit

- Grows vocabulary through exposure
- Happens through listening and reading
- Builds steadily over time
- Use knowledge-building curriculum
- Listening to complex texts accelerates growth
- Start young - cumulative advantage over time

Vocabulary - Glossary

Which Words Do I Teach?



Students are capable of learning approximately **3,000** words per year, or about **7** words per day (Beck, McKeown, & Kucan, 2002).

Vocabulary is highly predictive of later reading comprehension.

How do we choose which words to explicitly teach?

First, categorize words in the text...

Tier 1

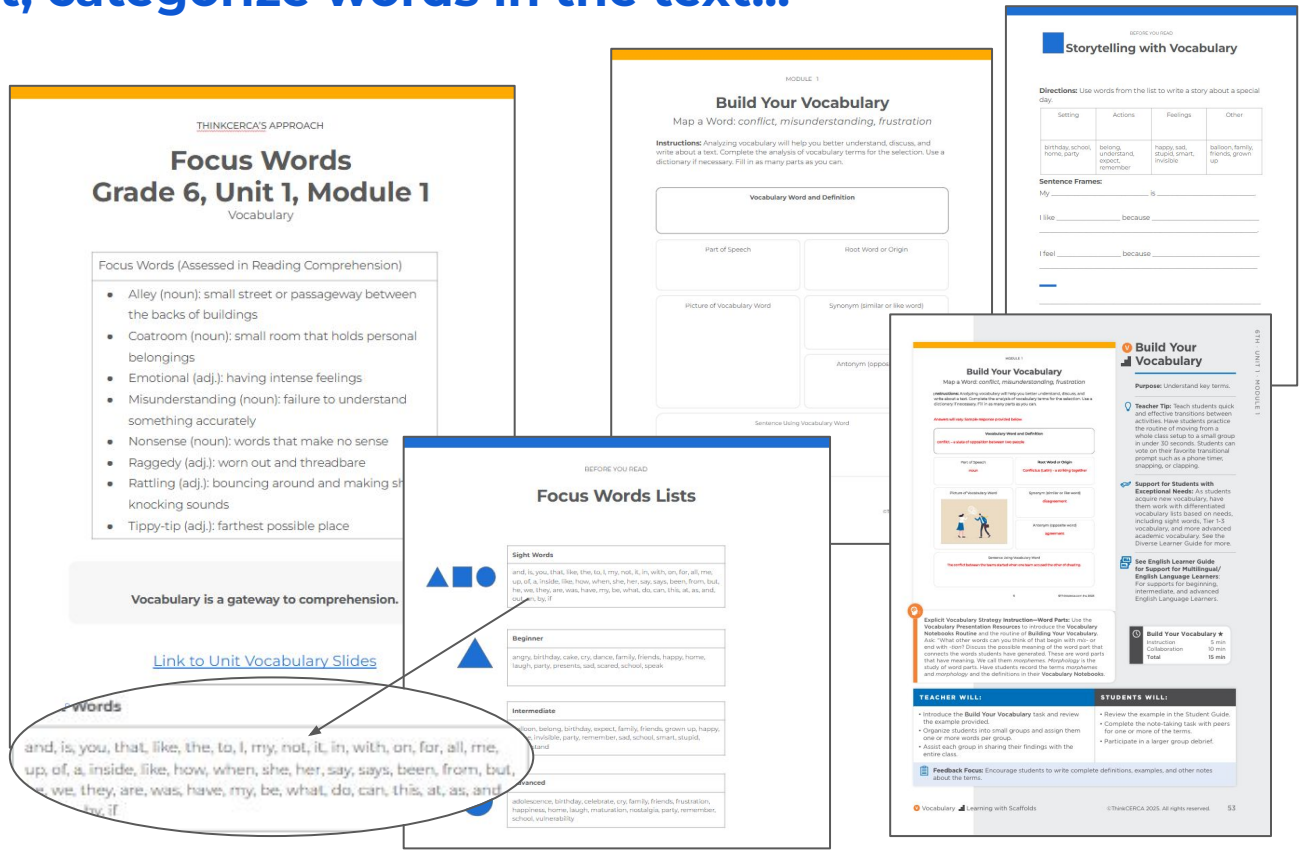
Words that are **common** and likely known by *most* students

Tier 2

Words that are **high-utility**, likely to cross contexts and are **essential for understanding text**

Tier 3

Words that are less common, or content-specific, but are needed in the moment to understand text



How do we choose which words to explicitly teach?

Prioritize Tier 2 Words Over the Others

Tier 1

Students with a language-based disability may need supports:

- Pictures
- Brief explanations
- Demonstrations

Tier 2

Words that are **high-utility**, likely to cross contexts and are **essential for understanding text**

Tier 3

May be critical for understanding text, but may not warrant instruction time.

- Teach these in context of the passage
- Support meaning when needed
- Think receptive or expressive as you prioritize

Beck, McKowen, and Kucan (2002)

Vocabulary in Motion

Words Can Shift Tiers Depending on Context

Tier 1

Words that are common and likely known by *most* students

- pull

Tier 2

Words that are high-utility, likely to cross contexts and are essential for understanding text

- ***force***

Tier 3

Words that are less common, or content-specific, but are needed in the moment to understand text

- *gravity*

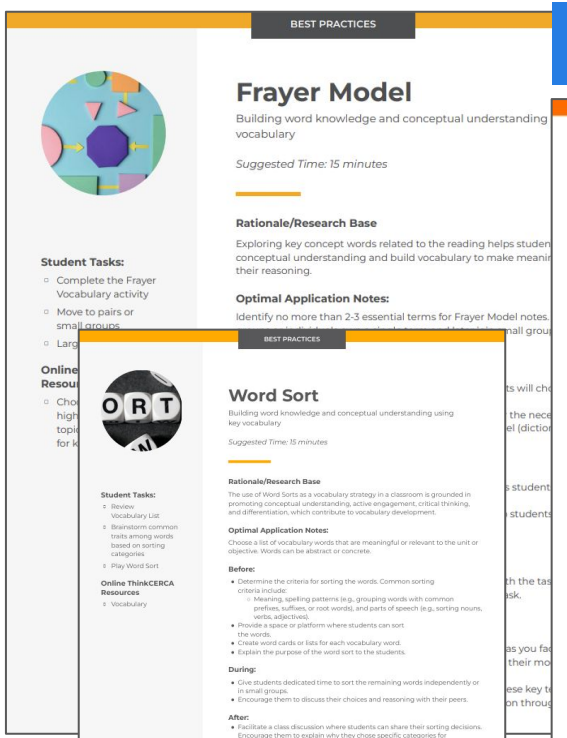
"This rule says that things like to keep doing what they're doing. Moving things keep moving straight ahead (and things standing still keep standing still)—unless some **force** makes them change.

Planets also naturally like to travel straight. For them to move in a circle instead, something has to keep tugging them around.

Newton thought, Earth's **gravity** can pull apples from high up in trees. Could the same **force** pulling on the apple also **pull** on the moon? Could Earth's **gravity** be the mysterious, invisible string that keeps the moon from flying off into space?"

Explicit Vocabulary Instruction that Works

Graphic Organizers


BEST PRACTICES

Frayer Model

Building word knowledge and conceptual understanding vocabulary

Suggested Time: 15 minutes

Rationale/Research Base

Exploring key concept words related to the reading helps studen conceptual understanding and build vocabulary to make meanir their reasoning.

Optimal Application Notes:

Identify no more than 2-3 essential terms for Frayer Model notes.

Student Tasks:

- Complete the Frayer Vocabulary activity
- Move to pairs or small groups

BEST PRACTICES

Word Sort

Building word knowledge and conceptual understanding using key vocabulary

Suggested Time: 15 minutes

Rationale/Research Base

The use of Word Sorts as a vocabulary strategy in a classroom is grounded in promoting conceptual understanding, active engagement, critical thinking, and differentiation, which contribute to vocabulary development.

Optimal Application Notes:

Choose a list of vocabulary words that are meaningful or relevant to the unit or objective. Words can be abstract or concrete.

Before:

- Determine the criteria for sorting the words. Common sorting criteria include:
  - Meaning, spelling patterns (e.g., grouping words with common prefixes, suffixes, or root words), and parts of speech (e.g., sorting nouns, verbs, adjectives).
- Provide a space or platform where students can sort the words.
- Create word cards or lists for each vocabulary word.
- Explain the purpose of the word sort to the students.

During:

- Give students dedicated time to sort the remaining words independently or in small groups.
- Encourage them to discuss their choices and reasoning with their peers.

After:

- Facilitate a class discussion where students can share their sorting decisions. Encourage them to explain why they chose specific categories for certain words.

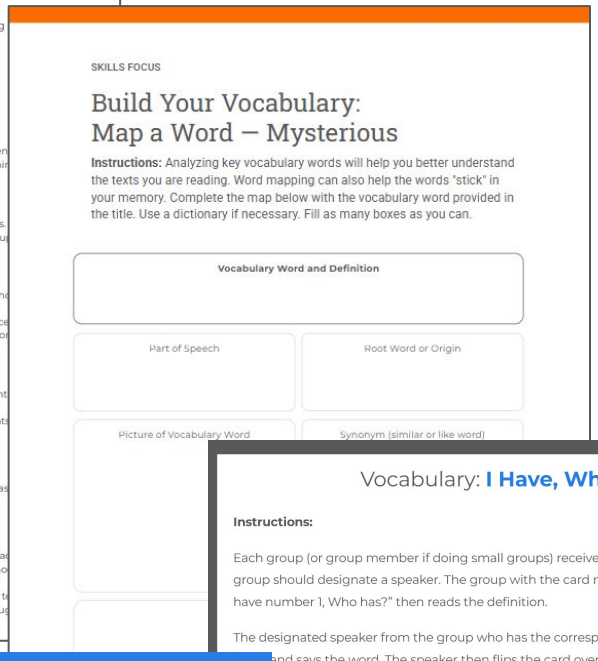
Scaffolds & Supports:

Student Tasks:

- Review Vocabulary List
- Brainstorm common traits among words based on sorting categories
- Play Word Sort

Online ThinkCERCA Resources

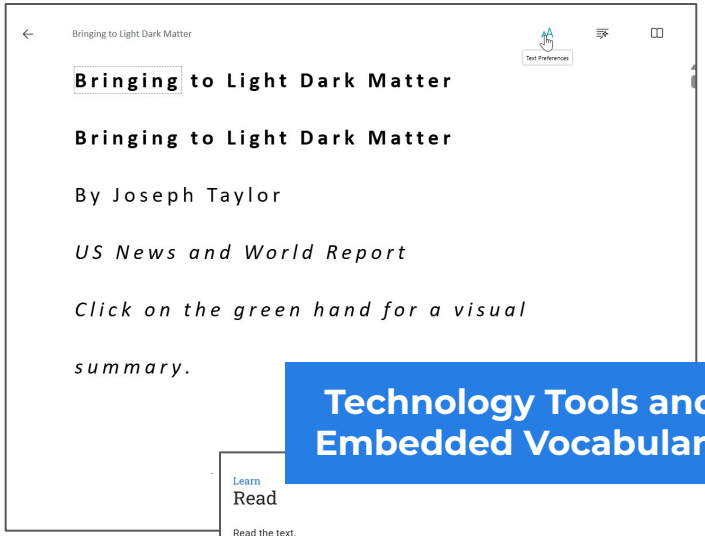
- Vocabulary


SKILLS FOCUS

Build Your Vocabulary: Map a Word – Mysterious

Instructions: Analyzing key vocabulary words will help you better understand the texts you are reading. Word mapping can also help the words "stick" in your memory. Complete the map below with the vocabulary word provided in the title. Use a dictionary if necessary. Fill as many boxes as you can.

Vocabulary Word and Definition	
Part of Speech	Root Word or Origin
Picture of Vocabulary Word	Synonym (similar or like word)


Bringing to Light Dark Matter

Text Preferences

Bringing to Light Dark Matter

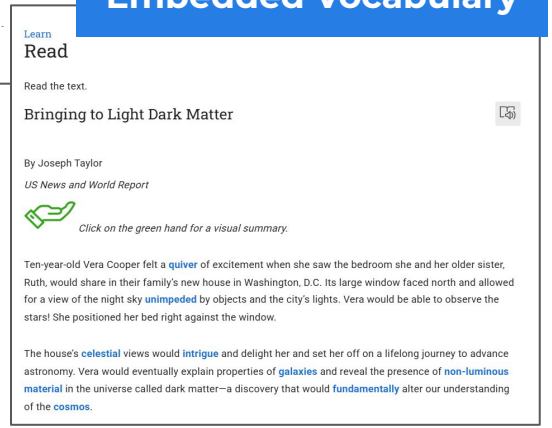
Bringing to Light Dark Matter

By Joseph Taylor

US News and World Report

Click on the green hand for a visual summary.

Technology Tools and Embedded Vocabulary


Learn

Read

Read the text.

Bringing to Light Dark Matter

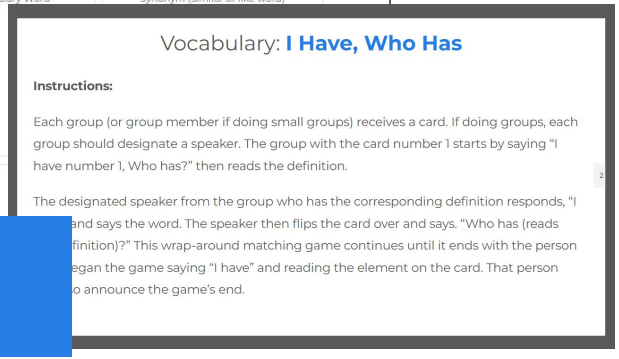
By Joseph Taylor

US News and World Report

Click on the green hand for a visual summary.

Ten-year-old Vera Cooper felt a **quiver** of excitement when she saw the bedroom she and her older sister, Ruth, would share in their family's new house in Washington, D.C. Its large window faced north and allowed for a view of the night sky **unimpeded** by objects and the city's lights. Vera would be able to observe the stars! She positioned her bed right against the window.

The house's **celestial** views would **intrigue** and delight her and set her off on a lifelong journey to advance astronomy. Vera would eventually explain properties of **galaxies** and reveal the presence of **non-luminous material** in the universe called dark matter—a discovery that would **fundamentally** alter our understanding of the **cosmos**.


Vocabulary: I Have, Who Has

Instructions:

Each group (or group member if doing small groups) receives a card. If doing groups, each group should designate a speaker. The group with the card number 1 starts by saying "I have number 1, Who has?" then reads the definition.

The designated speaker from the group who has the corresponding definition responds, "I [illegible] and says the word. The speaker then flips the card over and says. "Who has (reads [illegible] finition)?" This wrap-around matching game continues until it ends with the person [illegible] egan the game saying "I have" and reading the element on the card. That person [illegible] announce the game's end.

Cooperative Learning

Processing and Storing Vocabulary

Two Kinds of Memory - Building Automaticity

Declarative Memory

- Episodic (personal experiences) and Semantic (facts, vocabulary).

"I remember that the Civil War started in 1861."

"I know the steps to teach how to find the main idea."

Nondeclarative Memory

- Procedural motor (e.g., riding a bike) and procedural nonmotor (e.g., decoding).

Like **riding a bike**, you don't think about every move—you just do it.

For teachers: typing an email, taking attendance, or noticing a student who looks confused—**you just know how** after doing it many times.

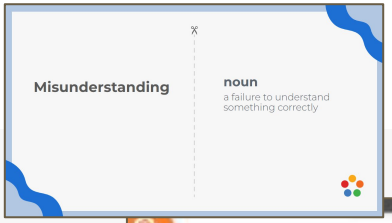
Aoccdrnig to rscheearch at Cmabrigde Uinervtisy, it deosn't mttaer in waht oredr the ltteers in a wrod are; the olny iprmoetnt tihng is taht the frist and lsat ltteer be at the rghit pclae. The rset can be a total mses and you can sitll raed it wouthit porbelm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe. Amzanig, huh?

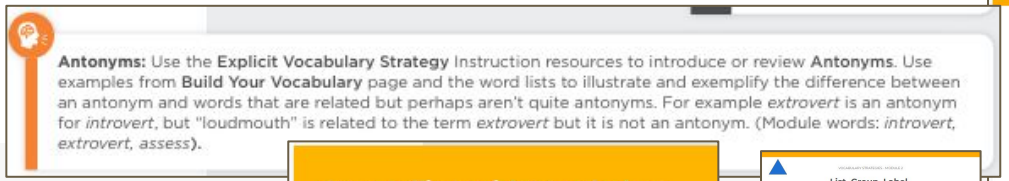
PS: hwo'd you like to run this by your sepll ckehcer?

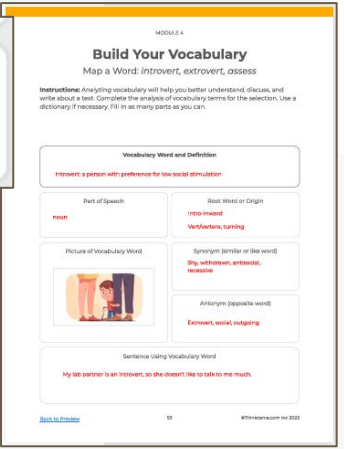
Gradual Release and Deep Engagement for Last Word Learning

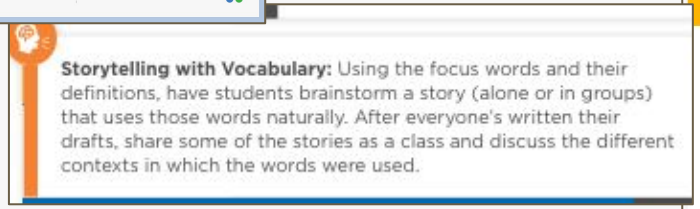
Moving Toward Ownership

I Do It	We Do It	You Do It Together	You Do It Alone
Teacher introduces word in context	Students help identify definition/ meaning in context	Students generate meaning with peers	Students create a mind map independently

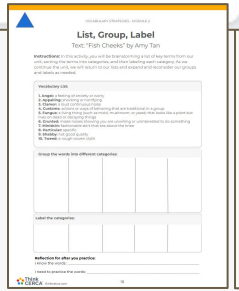












Bringing It All Together: Building a Vocabulary-Rich Classroom

Connecting Knowledge, Strategy, and Equity to Elevate Literacy



Vocabulary is...

- the bridge between word recognition and comprehension.
- most effective when taught through both explicit instruction and incidental exposure.
- strengthened through repeated exposure and stored in long-term memory through practice.
- expanded through morphology and word families that build both breadth and depth.
- deeply connected to background knowledge, which drives comprehension.
- supported by scaffolds like modeling, visuals, graphic organizers, and interactive tools.
- an **equity** lever—providing access, voice, and opportunity for all students.

"One forgets words as one forgets names. One's vocabulary needs constant fertilizing or it will die."

-Evelyn Waugh, English Writer

Thank You!