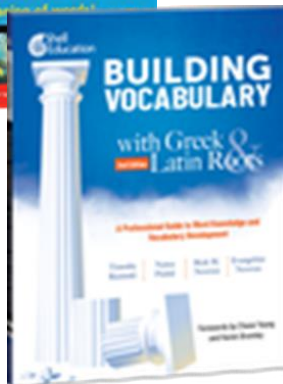
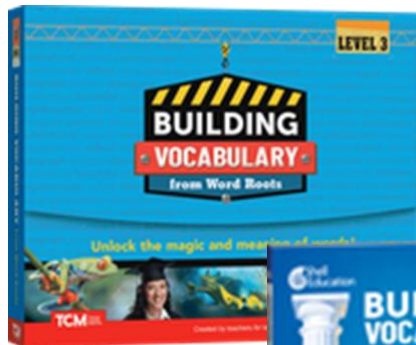
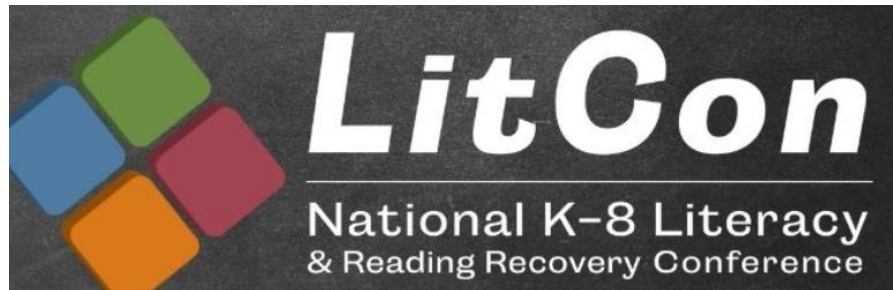


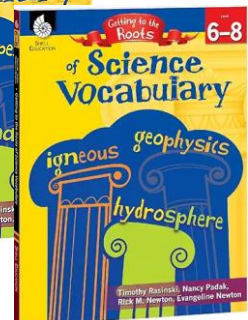
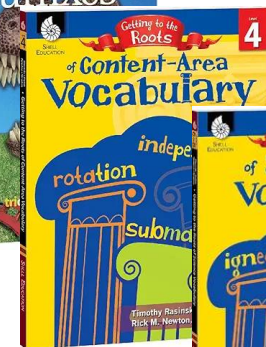
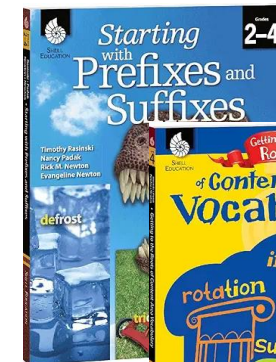
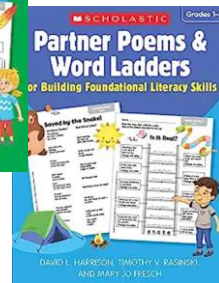
# Veni, Vidi, Vici Vocabulary!

## Conquering Vocabulary through Morphology Instruction

### ...And More



**Timothy Rasinski, PhD**  
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## Timothy Rasinski

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reading literacy fluency

**Timothy Rasinski, Ph.D.**  
Professor of Reading Education  
Reading and Writing Center  
Kent State University

Vocabulary Ladders 6  
Close Reading with Paired Texts  
Literacy Time K  
Building VOCABULARY from Word Roots  
Word Steps 4-8  
Poems for Building Reading Skills  
Idioms and Other English Expressions

### Biography

Timothy Rasinski is a professor of literacy education at Kent State University and director of its award winning reading clinic. He has written over 200 articles and has authored, co-authored or edited over 50 books or curriculum programs on reading education. He's

## Timothy Rasinski

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### Blog

#### Using Rapid Recognition Charts – July 2023

- I was first introduced to a Rapid Recognition Chart (RRC) during my initial-level Orton-Gillingham training. It is a tool that can be used during the fluency portion of a lesson; a way to add variety. During my advanced-level training, I used RRCs to improve my student's oral reading fluency and words read correct in their decodable texts. As I started to see the benefits of the RRC when working one on one with students, I began to use them in my reading intervention groups with exciting results....[Read More](#)

#### Connecting the Dots Between Interactive Writing and Decodable Texts: Literacy Solutions/Lasting Impact – July 2023

- When phonics instruction is done with high-leverage instructional practices, using interactive writing, and decodable texts, the impact is palpable and leaves plenty of time for other types of reading and writing experiences, imaginative play, and knowledge-building across the curriculum. Learn why this type of deliberate practice is essential in getting all of our children to decode and encode with automaticity....[Read More](#)

#### Becoming My Dad – June 2023

- Because of the kindness and support with which my dad inspired me, I have gained the confidence to invest in others while creating a synergy of positive goodness in my students and my colleagues. The pride that I take in my students' accomplishments is similar to that which my dad always took in my accomplishments. I am proud to say that even though this journey still has many



# www.timrasinski.com

## Timothy Rasinski



### Biography

Timothy Rasinski is a professor of literacy education at Kent State University and director of its award winning reading clinic. He has written over 200 articles and has authored, co-authored or edited over 50 books or curriculum programs on reading education. He's



# Timothy Rasinski

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## Professional Development

- Study Guide for Building Vocabulary with Greek and Latin Roots, (2nd Edition)-Tim Rasinski, Nancy Padak, Rick M. Newton, Evangeline Newton
- Tim Rasinski's Handouts for Professional Development: From Phonics to Fluency to Proficient Reading
- [Building Vocabulary Professional Development Video](#)
- Tools to Teach Academic Vocabulary Webinar

## Research

- Building Vocabulary Pilot Research Report
- The Latin-Greek Connection Building Vocabulary through Morphological Study
- Building Vocabulary White Paper
- Building Vocabulary Frequently Asked Questions

## Articles

- A Little Latin and a Whole Lot of English
- Building Vocabulary in Summer School



Twitter **@timrasinski1**



or

email me at **trasinsk@kent.edu**

- **Monday Morphology (Word Root Teasers)**
- **Wednesday Word Ladder**
- **Fluency Friday**



# Presidents Day



A Word Root Lesson focused on **sid, sed, sess = sit**

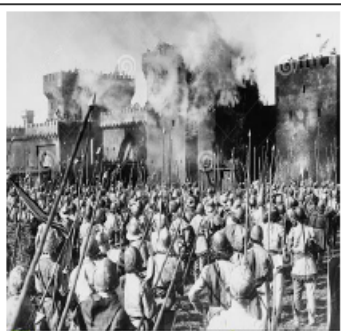
On the third Monday in February, the United States celebrates the national holiday known as Presidents Day. The day takes place during the birth month of the country's two most prominent presidents, George Washington and Abraham Lincoln. The story of Presidents' Day began in 1800. Following the death of George Washington in 1799, his February 22 birthday became a perennial day of remembrance. At the time, Washington was venerated as the most important figure in American history.

The word root **sid** is embedded in the word president. The roots **sid**, **sed**, and **sess** mean to "**sit**." Knowing that the word root pre means before, you can see how a president "sits before" or in front of the nation to provide leadership **and is often referred to as the sitting president.**

Match the phrase on the left with the appropriate **sid/sed/sess** word on the right.

1. \_\_\_\_ A person who "sits" in his or her home.
2. \_\_\_\_ Matter that has been deposited and "sits" or settles through some natural process.
3. \_\_\_\_ Tending to spend much time seated and inactive.

- a. sedentary
- b. sediment
- c. resident



## Did You Know...

When the ancient Romans would attack and seize a city or town, they often "**sat**" right up against" (ob + **sess**) the city walls and starved the people out until they surrendered. They called this blockade an *obsessio*. The residents would stare out at the huge army that just sat there and would never go away. The very sight of the soldiers instilled fear and panic in the residents.

Today, we call an irrational fear that never goes away an *obsession*! We can even be **obsessed** with imaginary worries, when there are no armies outside waiting to attack, and when we have nothing to fear but fear itself!

More **sed/sid/sess** words to explore:

**Sedan Session Sedate**

Learn more about a Word Roots approach at  
[www.timrasinski.com](http://www.timrasinski.com) > Products. **Contact**  
us at [trasinsk@kent.edu](mailto:trasinsk@kent.edu)





## March: The Roman God of War, Mars



A Word Root Lesson focused on **Mars** (The Roman God of War) and **Bell** (The word root for war)

The Roman god of war was named **Mars**. It seems natural, then, that the fourth planet which shines with a red color, resembling blood, was named for the god of war. He was one of the most important of the Roman gods and an entire month of the year was dedicated to him. The month was so named because Mars, the patron god of the Romans, was a war-god, and spring military war campaigns usually began about that time. From the name of this god we have the word **martial** which refers to things military or warlike.

The Latin word root **bel/bell** also refers to war. Many words in English are derived from the word root **bel/bell** such as **rebel** and **belligerent**.

Match the description below with the **bel/bell** word on the right.

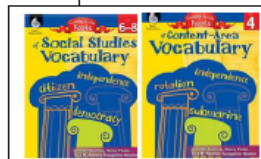
1. \_\_\_\_ Acting in an aggressive or warlike manner.
2. \_\_\_\_ A war against the government of a country.
3. \_\_\_\_ To shout in a deep and warlike voice and manner.

- a. rebellion
- b. bellow
- c. bellicose

### Did You Know...

The word root **ante** means **before**. When combined with the word root **bell**, meaning war, we have the word **antebellum**. In American history the time before the Civil War is referred to as the **antebellum** period.

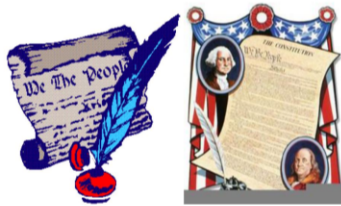
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# PREAMBLE

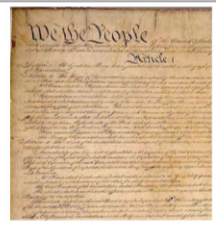
Pre- ← → ambul

Sept 17 – Constitution Day!



## A Word Roots Lesson on the **Pre- (Before)** Word Root!

The Constitution of the United States outlines the laws of our land. The Constitution begins with a Preamble. “Preamble” has two roots. The prefix **Pre-** means before, and the base **ambul (ambl)** means walk. The **Preamble** “walks before” the rest of the Constitution.



### Here is the **Preamble** to the Constitution

We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

**Pre-** starts many words that carry the meaning of “before.” Here are some **pre-** words. Put them in the sentences where they fit.

Words: **premixed, prepay, preshrunk**

- Our salad is \_\_\_\_\_. All the ingredients are already together.
- The size of my new jeans will not change because they are \_\_\_\_\_.
- We can \_\_\_\_\_ for movie tickets by going online.

Want to learn more about a Word Roots approach to *Questions*? Contact us at [trasinski@kent.edu](mailto:trasinski@kent.edu) or go to [www.timrasinski.com](http://www.timrasinski.com) > Products

Words with **pre-** do not always carry the meaning of “before.” Here are six words. Circle the ones that carry the meaning of “before.”

**preschool**    **pretzel**  
**press**        **pretest**  
**pretty**        **preview**

Sept 17 – Constitution Day!



## A Word Roots Lesson on the **Ambul-/Ambl- (Walk)** Word Root!

In September 1787, delegates to the Constitutional Convention signed U.S. Constitution. The Constitution begins with a Preamble, which lists the reasons that the Constitution was created. The Preamble begins with three words: “We the People.” Why do you think the framers (writers) decided to begin that way?

The Preamble itself is a beginning. The word “**preamble**” has two roots. The prefix **pre-** means “before.” The base **ambul- (ambl-)** means “walk.” How are these meanings in “preamble”?



### Here is the **Preamble** to the Constitution

*We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.*

The word “**ambulance**” also contains the root **ambul- (ambl-)**. History gives us the reason why. In olden times, people walked with hammocks or carts to take sick or injured people for help. In fact, the earliest record of this kind of an ambulance was probably constructed by the Angle-Saxons around 900 AD.



The root “**somn**” means sleep. What is a **somnambulist**?

Two More **Ambul/Ambl** Words  
**Amble** – to walk  
**Funambulist** Tightrope walker.

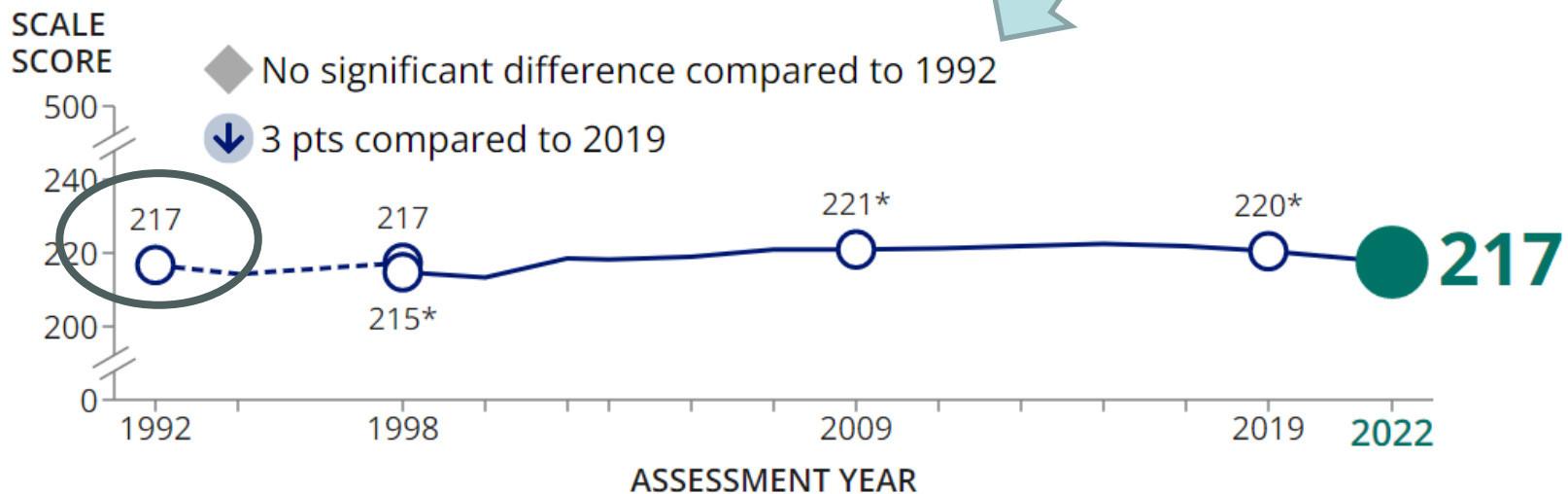
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# The Problem (USA) –

Gr 4 (Age 10) Reading – 1992-2022

FIGURE | Trend in fourth-grade reading average scores

DISPLAY AS **GRAPH** [TABLE](#)





STUDENT ACHIEVEMENT

# Why Are Reading Scores Still Falling on the Nation's Report Card?

4 questions about the new results, and what we know about answers



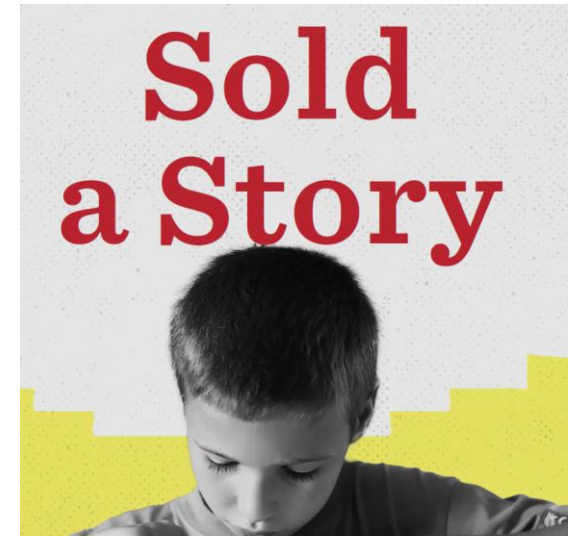
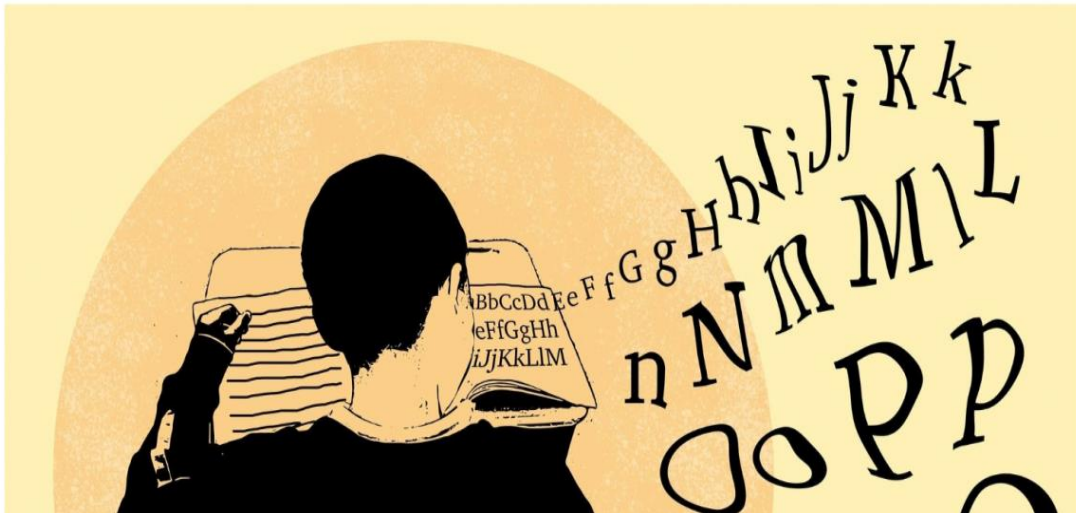
By [Sarah Schwartz](#) — January 29, 2025 ⌚ 9 min read

# Lack of Systematic **Phonics**

## Hard Words

*Why aren't kids being taught to read?*

Emily Hanford



**Sold a Story: How Teaching Kids to Read Went So Wrong**

# But It's More Than Just Phonics



FORBES > LEADERSHIP > EDUCATION

## Just Adding More Phonics Yields Only Short-Term Gains On Reading Tests

**Natalie Wexler** Senior Contributor ⓘ

*I write about education, cognitive science, and fairness.*

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Apr 26, 2023, 01:21pm EDT

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# What Nobody Is Saying About the NAEP Reading Scores

They're not just about phonics.

NATALIE WEXLER

FEB 2



READ IN APP 

# SOR

## SCIENCE OF READING

# SCARBOROUGH'S READING ROPE

2001

## 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.)

## WORD RECOGNITION

### PHONOLOGICAL AWARENESS

(syllables, phonemes, etc.)

### DECODING

(alphabetic principle,  
spelling-sound correspondences)

### SIGHT RECOGNITION

(of familiar words)

THE MANY  
STRANDS  
WOVEN INTO  
SKILLED  
READING

INCREASINGLY STRATEGIC

INCREASINGLY AUTOMATIC

SKILLED  
READING

Fluent execution  
and coordination of  
word recognition and  
text comprehension.

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Graphic modeled after the illustration from the *Handbook of Early Literacy Research*, by Susan B. Neuman and David K. Dickinson (2001) who re-envisioned researcher and author Hollis Scarborough's visual metaphor of the Reading Rope.

# SCARBOROUGH'S READING ROPE

2001

## LANGUAGE COGNITION

**BACKGROUND KNOWLEDGE**  
(facts, concepts, etc.)

**VOCABULARY**  
(breadth, precision, links, etc.)

**LANGUAGE STRUCTURE**  
(syntax, semantics, etc.)

**VERBAL REASONING**  
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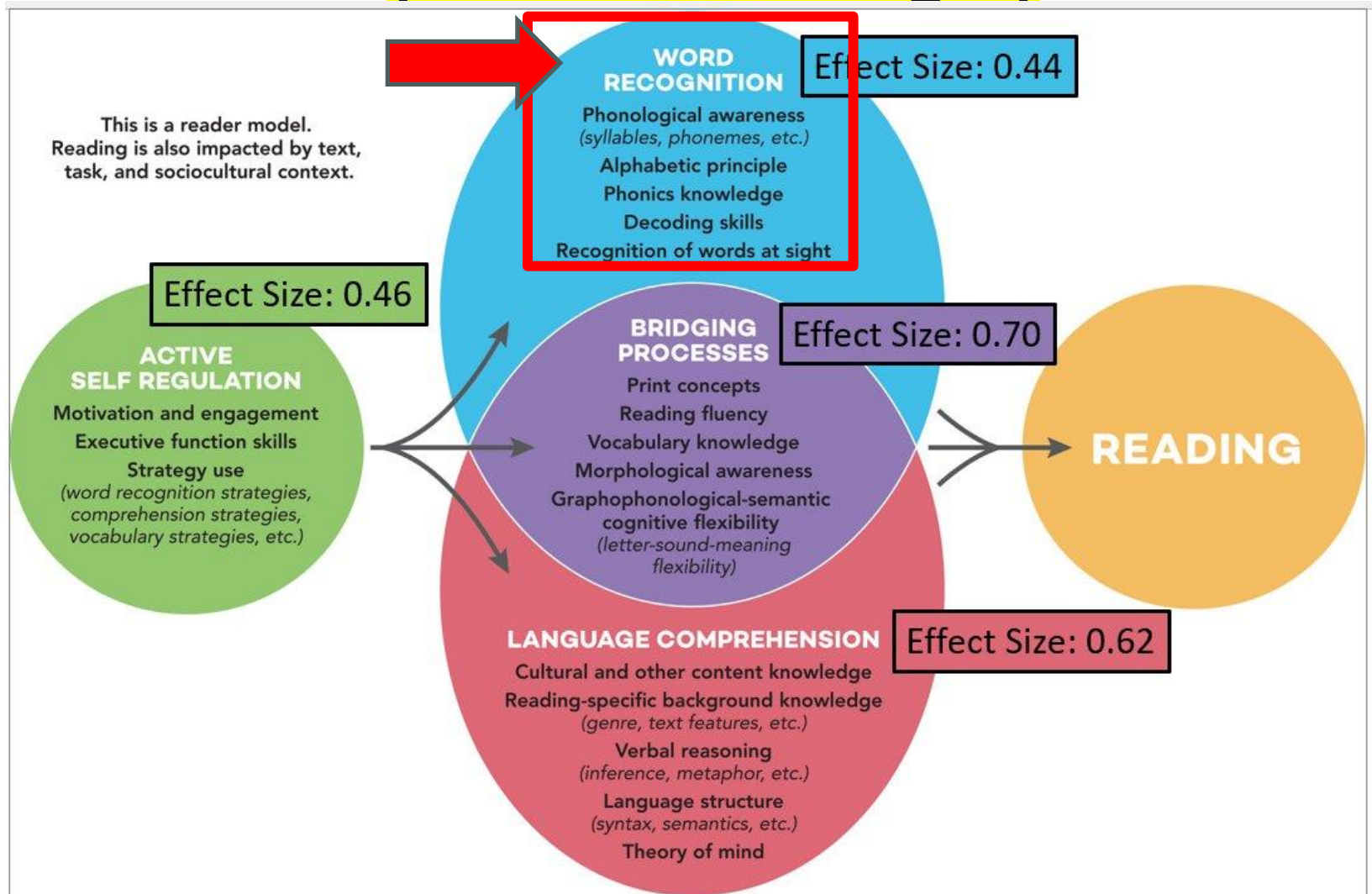
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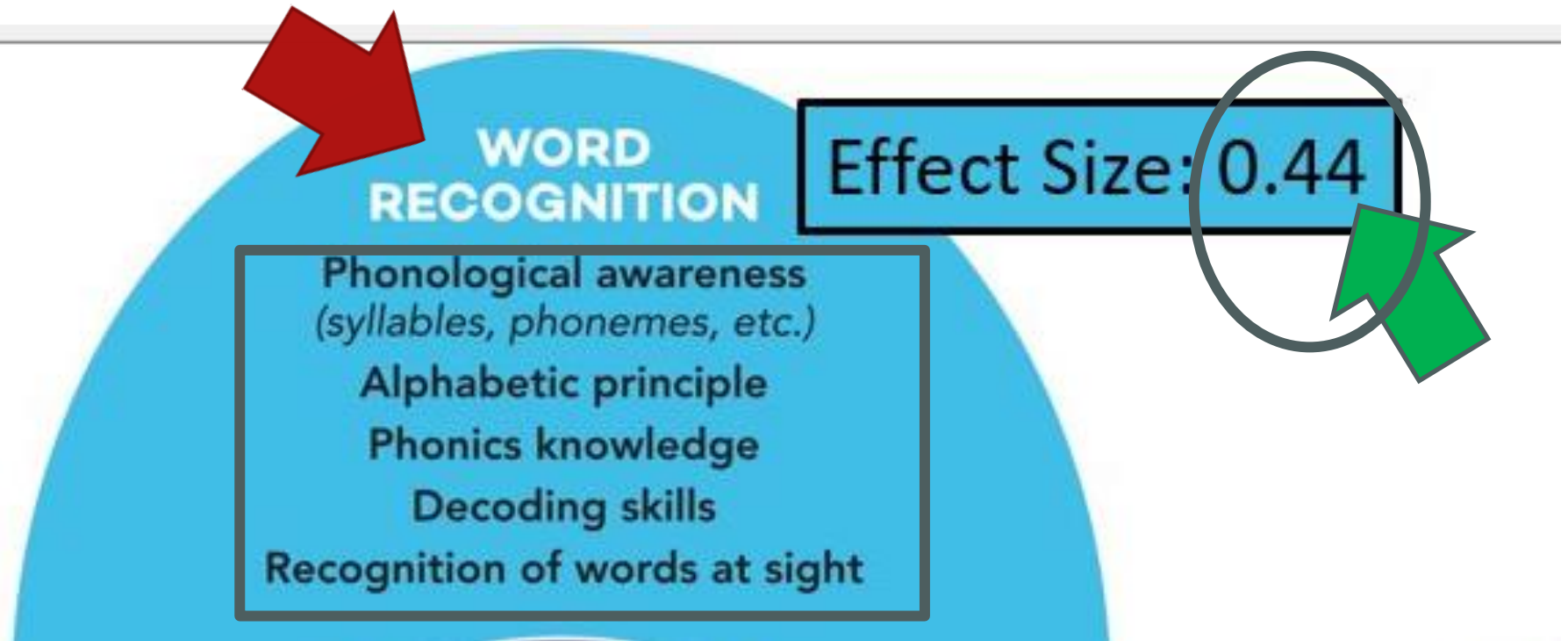


# Active View of Reading – 2021

## (Duke & Cartwright)

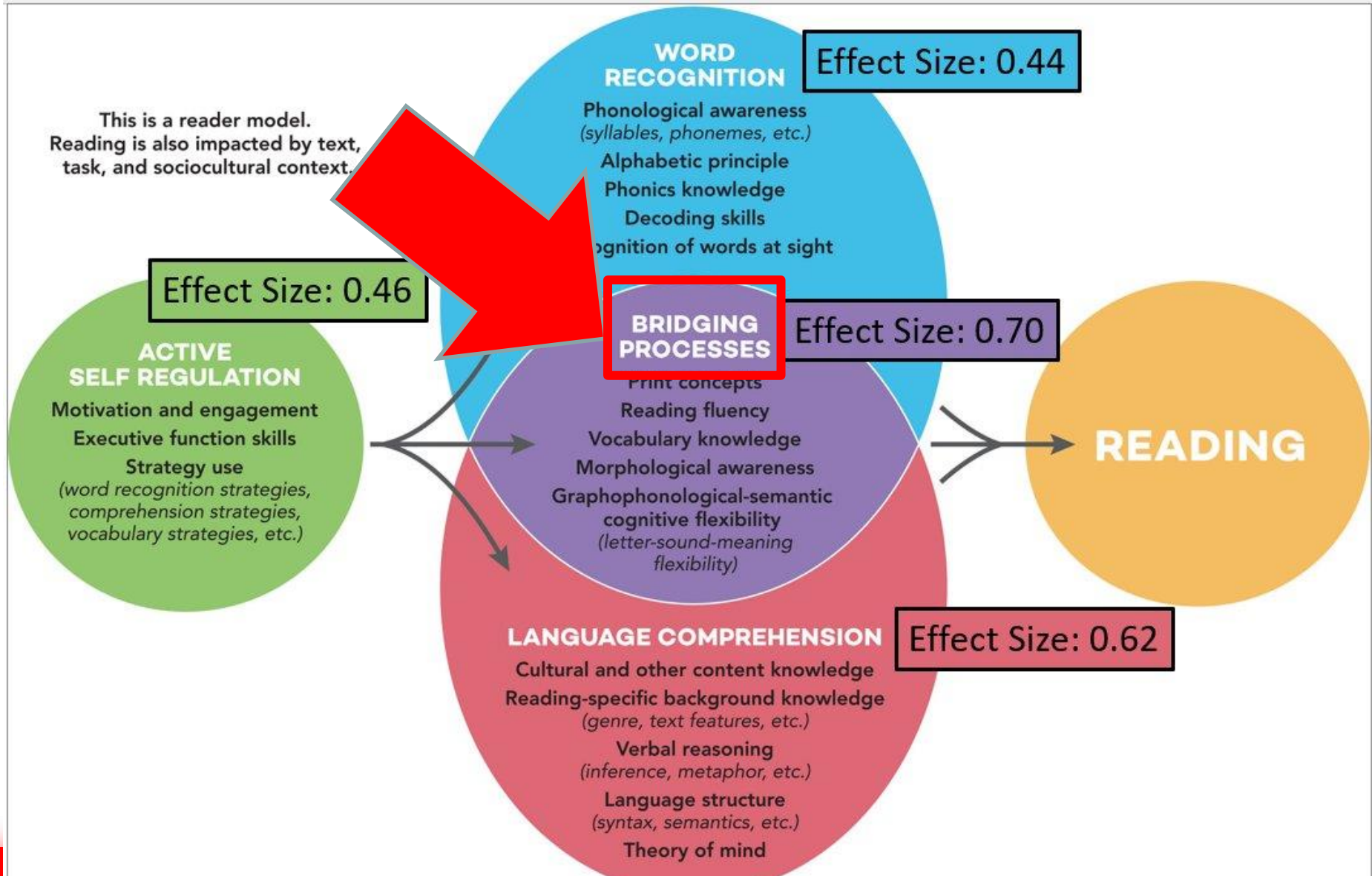


# Active View of Reading – 2021 (Duke & Cartwright))



# Active View of Reading -2021

## Duke and Cartwright





# Active View of Reading - 2021

This is a reader model.  
Reading is also impacted by text,  
task, and sociocultural context.

Effect Size: 0.46

## ACTIVE SELF REGULATION

Motivation and engagement  
Executive function skills  
Strategy use  
(word recognition strategies,  
comprehension strategies,  
vocabulary strategies, etc.)

## WORD RECOGNITION

Phonological awareness  
(syllables, phonemes, etc.)  
Alphabetic principle  
Phonics knowledge  
Decoding skills  
Recognition of words at sight

Effect Size: 0.44

## BRIDGING PROCESSES

Print concepts  
Reading fluency  
Vocabulary knowledge  
Morphological awareness  
Graphophonological-semantic  
cognitive flexibility  
(letter-sound-meaning  
flexibility)

Effect Size: 0.70

## LANGUAGE COMPREHENSION

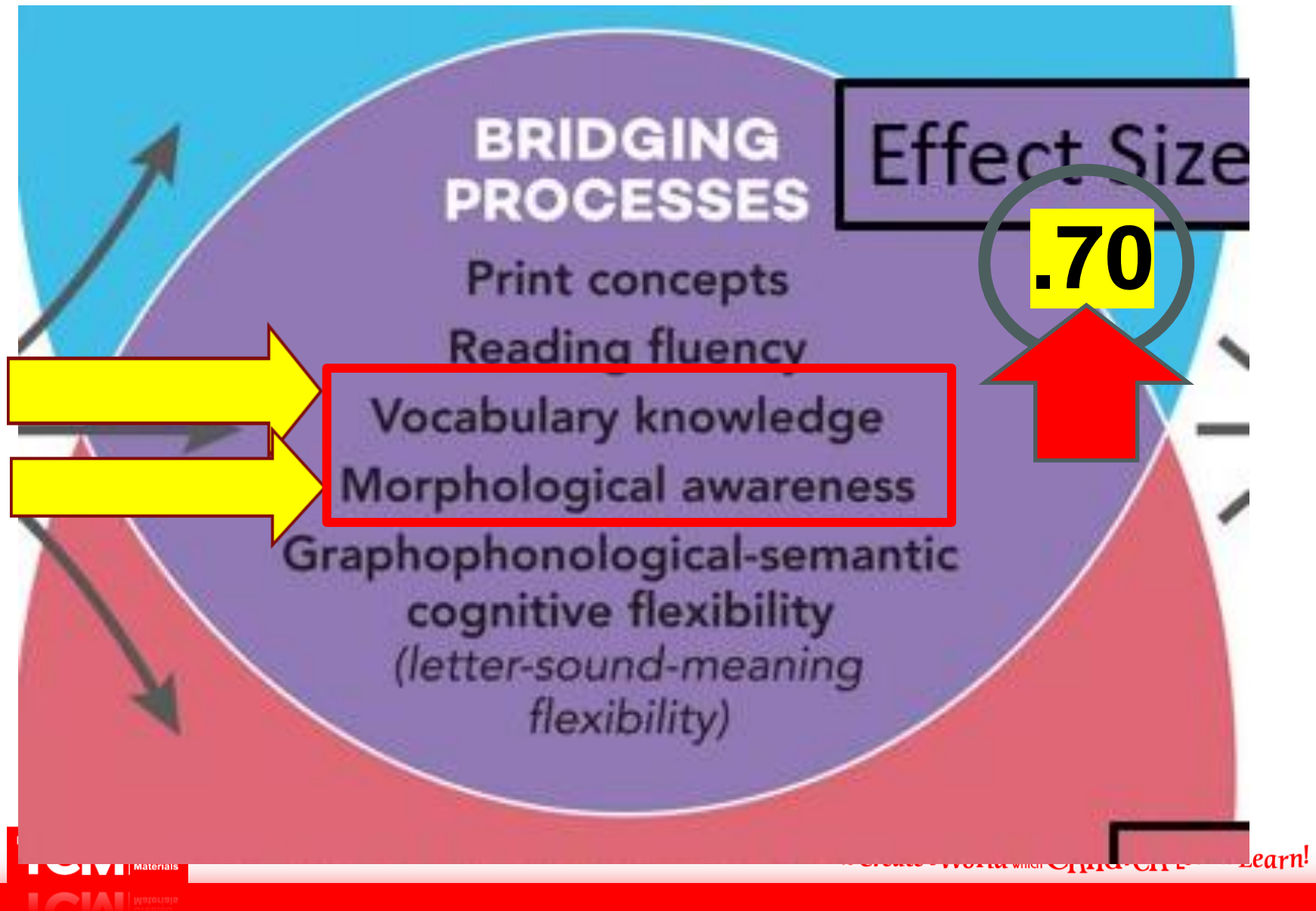
Cultural and other content knowledge  
Reading-specific background knowledge  
(genre, text features, etc.)  
Verbal reasoning  
(inference, metaphor, etc.)  
Language structure  
(syntax, semantics, etc.)  
Theory of mind

Effect Size: 0.62

Effect Size .70

READING

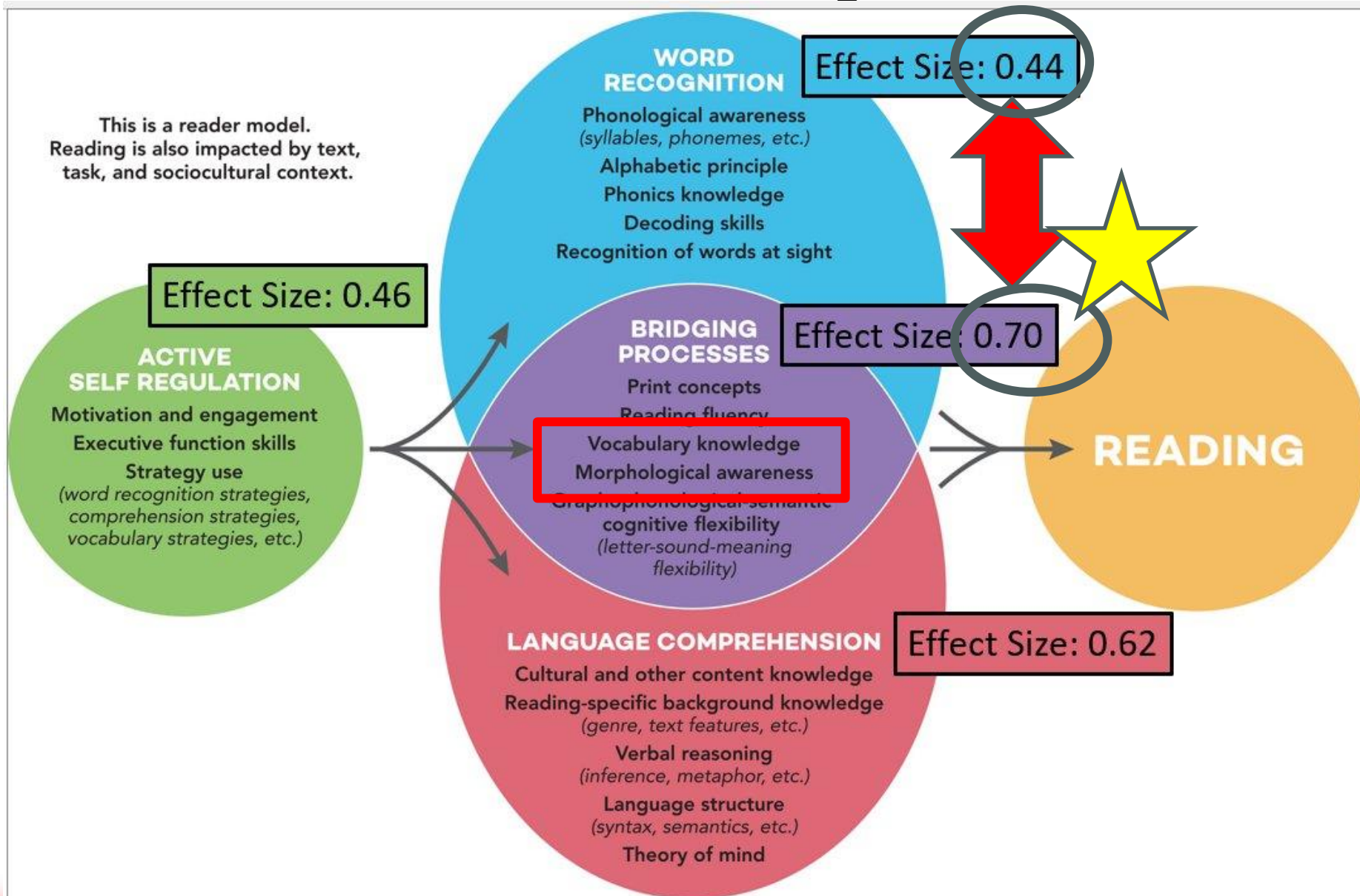
# Active View of Reading – 2021 (Nell Duke)





# Active View of Reading - 2021

This is a reader model.  
Reading is also impacted by text,  
task, and sociocultural context.




# Thinking through research and the science of reading

Elfrieda H. Hiebert

September 25, 2023

“Journalists and policy makers often interpret these results to mean that students who perform at the below-basic level are unable to read (Hanford, 2019) or, at the very least, need to revisit phonological decoding and word recognition (White et al., 2021). **But research examining the profiles of 4th graders scoring at the below-basic level shows it is not foundational word identification that challenges these students but rather vocabulary and meaning-making.”**



# Students Fall Flat In Vocabulary Test

By Stephanie Bang

U.S. students only about half of what was expected to on a new vocabulary test of a national examination of evidence of several findings in the nation's education.

Eighth-graders in an average of 265 schools took the vocabulary test as part of the National Assessment of Educational Progress, the results of which were made public Thursday. Fourth-graders averaged a score of 18 out of 500.

The results showed that nearly half of eighth-graders didn't know that "permeates" means to "spread all the way through," and about the same proportion of fourth-graders didn't know that "puzzled" means confused—words that educators think students in those grades should recognize.

Most fourth-graders did know the meaning of "created," "spread" and "underestimate." At eighth grade, most students knew "grimace," "icons" and "edible."

The new vocabulary test was embedded in the biennial national reading exam, known as the NAEP. Last year's scores were in line with those posted in 2009, the first time vocabulary scores were broken out, but the latest results are the first to be made public.

Margaret McKeown, a senior scientist at the Learning Research and Development Center

at the University of Pittsburgh, said she wasn't surprised by the results but that they are cause for concern. "There is very little vocabulary done in any classroom at any age," said Ms. McKeown.

Leslie Russell, a reading specialist at Butts Road Intermediate School in Chesapeake, Va., said the vocabulary scores could be improved if students were more immersed in literacy at school and at home. "We need to make more of an effort to get parents involved in teaching reading and teaching them how to help children make sense of words they do not know," she said.

In 2009, 12th-graders also took the exam administered by the U.S. Department of Education. Their average score was 296 out of 500 on the vocabulary portion.

The department has given the reading exam for decades but decided to add new questions in 2009 to more fully test students' knowledge of grade-level vocabulary. The words were embedded in reading passages and students were asked their definition in a multiple-choice format.

"Without a strong vocabulary, any child's ability to read and to learn suffers dramatically," David Driscoll, chairman of the National Assessment Governing Board, which sets policy for NAEP, said in a statement.

## The Search for Meanings

Fifty percent or fewer of U.S. public- and private-school students knew the meaning of the following words in a national reading exam given to fourth- and eighth-graders in 2009 and 2011, and to 12th-graders in 2009.

**FOURTH GRADE**  
barren  
eerie  
detected  
flourish  
prestigious

**EIGHTH GRADE**  
urbane

**12th GRADE**  
delusion  
mitigate



Fourth-grade test question

On page one, the passage says that some boys were puzzled when they visited the Public Garden. This means the boys were:

**A** trying to follow the ducks

**B** hoping to play games with the ducks

**C** surprised that there were so many ducks

**D** confused that there were no ducks

TCM

Children Love to Learn!



# Vocabulary Declines, With Unspeakable Results

By E.D. Hirsch Jr.

**F**or all the talk about income inequality in the United States, there is too little recognition of education's role in the problem. Yet it is no coincidence that, as economist John Bishop has shown, the middle class's economic woes followed a decline in 12th-grade verbal scores, which fell sharply between 1962 and 1980—and, as the latest news confirms, have remained flat ever since.

The federal government reported this month that students' vocabulary scores on the National Assessment of Educational Progress have seen no significant change since 2009. On average, students don't know the words they need to flourish as learners, earners or citizens.

All verbal tests are, at bottom, vocabulary tests. To predict competence most accurately, the U.S. military's Armed Forces Qualification Test gives twice as much weight to verbal scores as to math scores, and researchers such as Christopher Winship and Anders D. Korneman have shown that these verbally weighted scores are good predictors of income level. Math is an important index to general competence, but on average words are twice as important.

Yes, we should instruct students in science, technology, engineering and math, the much-ballyhooed STEM subjects—but only after equipping them with a

base of wide general knowledge and vocabulary.

Students don't learn new words by studying vocabulary. They do so by guessing new words within the overall gist of what they are hearing or reading and understanding the gist

**A good first step to fight income inequality:  
Do a better job of teaching kids to read.**

requires background knowledge. If a child reads that "annual floods left the Nile delta rich and fertile for farming," he is less likely to intuit the meaning of the unfamiliar words "annual" and "fertile" if he is unfamiliar with Egypt, agriculture, river deltas and other such bits of background knowledge.

Yet in the 1930s, American schools transformed themselves according to the principles of "progressive education," which assume that students need to learn not a body of knowledge but "how-to" skills that (supposedly) enable them to pick up specific knowledge later on. Analyses of schoolbooks between 1940 and 1960 show a marked dilution of subject matter and vocabulary. Little surprise, then, that students began scoring lower on tests that probed knowl-

edge and vocabulary size. The decline became alarming in the 1970s, as the federal report "A Nation at Risk" pointed out in 1983.

The focus on the "skill" of reading has produced students who cannot read. Teachers cannot cultivate reading comprehension by forcing children to practice soul-deadening exercises like "finding the main idea" and "questioning the author." Students would be better off gaining knowledge by studying real subject matters in a sensible, cumulative sequence. Instead, elementary schools are dominated by content-indifferent exercises that use random fictional texts on the erroneous assumption that reading comprehension is a formal skill akin to typing.

Vocabulary-building is a slow process that requires students to have enough familiarity with the context to understand unfamiliar words. Substance, not skill, develops vocabulary and reading ability—there are no shortcuts. The slow, compounding nature of vocabulary growth means that successful reform must lie in systematic knowledge-building. That is the approach used in South Korea, Finland, Japan, Canada and other nations that score highly in international studies and succeed best in narrowing the verbal gap between rich and poor students.

In the U.S., 45 states have recently adopted the Common Core State Standards for language arts. The standards have been

denounced for various pedagogical and political reasons, but all sides in the debate should accept one key principle in the new standards: "By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge . . . to be better readers in all content areas. Students can only gain this foundation . . . [through] rich content knowledge within and across grades."

Opponents of Common Core's new nonfiction requirement ought to recognize that good, knowledge-enhancing nonfiction is literature that helps students gain the knowledge and words they need to understand fiction and everything else.

The most secure way to predict whether an educational policy is likely to help restore the middle class and help the poor is to focus on the question: "Is this policy likely to translate into a large increase in the vocabularies of 12th-graders?" When questions of fairness and inequality come up in discussions, parents would do well to ask whether it's fair of schools to send young people into a world where they suffer from vocabulary inequality.

*Mr. Hirsch, a former professor of education and humanities at the University of Virginia, is founder of the Core Knowledge Foundation. This op-ed is adapted from an essay forthcoming in the Winter 2013 issue of City Journal.*



Joy Resmovits

Joy.resmovits@huffingtonpost.com

## Vocabulary Test Results Show Top U.S. Students Losing Ground, Others Stagnate

Posted: 12/06/2012 11:00 am EST | Updated: 12/06/2012 3:00 pm EST

If you can identify the meaning of the word "prospered" within a passage, chances are you know more vocabulary than most American high school seniors.

The results of the national standardized vocabulary tests are in, and the scores are troubling -- but not unexpected -- experts say. Average performance on the U.S. Education Department's national exams was mostly stagnant at low levels between 2009 and 2011, and the highest performers lost ground during that time.

"We should be worried about this," said Cornelia Orr, executive director of the National Assessment Governing Board. "It's not any more of a crisis than we've been seeing in reading."

On Thursday, the National Center for Education Statistics, the U.S. Education Department's research arm, released the vocabulary scores for fourth- and eighth-grade students on the 2009 and 2011 reading comprehension exams administered by the National Assessment of Educational Progress. This is the first time the results of a separate scale for vocabulary questions on the national reading comprehension test have been released. NAEP is considered the "gold standard" of standardized testing, since stakes are low for children and since the tests are designed by the federal government, which has no skin in the game in terms of how states perform. (The release also included 12th grade scores for only 2009, since that exam is only given every four years).



# So, Let's Work on Building Students' Vocabularies

# SOME FACTS ABOUT ENGLISH VOCABULARY

# Did You Know?

English has the largest  
lexicon in the world –over  
1,000,000 words!

(Rasinski, Padak, Newton & Newton, 2020)





# Did You Know?

The average 5<sup>th</sup> grader will meet 10,000 new words in reading.

(Nagy & Anderson, 1984)





# Did You Know?

Students will need to know approximately 500,000 words by the time they finish high school!



Nagy & Anderson, 1984

Yet, research has found that students can learn only 8-10 words per week through direct instruction (rote memorization, dictionary work, etc)



So, what's the **BEST** way to  
teach vocabulary?

So what's the **BEST** way to teach words?

***Not sure there is a BEST way, but I do know some not-so-good way to teach words?***

2

Antonyms  
sent

Part of Speech & Definition  
Due Next Fri

Mike Rasinski  
Read per 1  
March 1

# VOCABULARY LIST

- Do First 5
1. ~~adroit~~ - adj. skillful & clever
  2. ~~apprise~~ - v. to notify
  3. ~~aromatic~~ - adj. having an aroma
  4. ~~ascetic~~ - adj. self denying, austere  
n. one who leads a life of self-denial
  5. ~~bayou~~ - n. in southern U.S. A marshy inlet or outlet of lake, river, etc.
  6. ~~bellicose~~ - adj. quarrelsome, warlike
  7. ~~choleric~~ - adj. easily angered
  8. ~~cloister~~ - n. a monastery or convent
  9. ~~conjecture~~ - n. guess, inferring without complete evidence
  10. ~~copious~~ - adj. copious, abundant
  11. ~~coquetry~~ - n. a girl or woman flirt
  12. ~~cornice~~ - n. a horizontal molding projecting along the top of a wall, etc.
  13. ~~courageous~~ - n. brave
  14. ~~debris~~ - n. bits & pieces of stone, rubbish, etc.
  15. ~~decorum~~ - n. whatever is suitable or proper
  16. ~~diadem~~ - n. - crown, ornamental headband
  17. ~~docile~~ - adj. easy to discipline
  18. ~~dogmatic~~ - adj. asserted w/o proof positive or arrogant in stating opinion
  19. ~~doleful~~ - adj. sad, mournful
  20. ~~efface~~ - v. keep from being noticed, blot out

21. ~~garrulous~~ - adj. talking too much about inconsequential things
22. ~~grapple~~ - n. hand to hand struggle, a grip
23. ~~guidon~~ -
24. ~~impose~~ - v. to place a burden on to force onto others
25. ~~interpose~~ - v. to intervene, interrupt
26. ~~knell~~ - v. to ring slowly, ominously - omen of death
27. ~~languor~~ - n. lack of vigor, weakness
28. ~~ludicrous~~ - adj. causing laughter because absurd or ridiculous
29. ~~malevolence~~ -
30. ~~maudlin~~ - adj. foolishly, often tearfully sentimental
31. ~~melee~~ - n. confused general hand to hand fight
32. ~~molten~~ - adj. melted by heat
33. ~~myriad~~ - n. adj. very many persons or things
34. ~~orb~~ - n. globe or sphere
35. ~~ostracism~~ - n. practicing banishing one
36. ~~pantaloon~~ - n. trousers
37. ~~pariah~~ - n. any outcast person formerly in India any oppressed class
38. ~~pathos~~ - n. quality of something arousing pity
39. ~~perilous~~ - adj. dangerous, involving peril
40. ~~plaintive~~ - adj. expressing sorrow

41. ~~restive~~ - adj. restless, uneasy hard to manage, refusing to go ahead
42. ~~reverie~~ - n. dreamy thinking of pleasant things
43. ~~roseate~~ - adj. roseate color, cheerful optimistic
44. ~~rueful~~ - adj. sorrowful unhappy causing sorrow
45. ~~sallow~~ - adj. having a sickly yellow complexion
46. ~~sardonic~~ - adj. bitterly sarcastic, scornful or mocking
47. ~~savant~~ - n. a learned person
48. ~~sententious~~ - adj. saying much in few words
49. ~~sexton~~ - n. person who takes care of a church, rings bells, arranges burials
50. ~~sinuous~~ - adj. having many curves or turns, indirect, untrustworthy
51. ~~suffuse~~ - v. overspread (with liquid, dye, etc.)
52. ~~surmount~~ - adj. rise above overcome
53. ~~surplice~~ - n. broad sleeved white gown worn by members of clergy or choir
54. ~~sylvan~~ - adj. characteristic of woods, wooded.
55. ~~tableau~~ - n. presentation of a scene by costumed person or group
56. ~~tedious~~ - adj. tiresome boring hackneyed
57. ~~travail~~ - n. hard work or severe pain
58. ~~undulate~~ - v. to cause to move by waves
59. ~~vanquish~~ - v. to defeat
60. ~~venerable~~ - adj. worthy of respect because of one's dignity etc.



# Traditional Vocabulary Instruction

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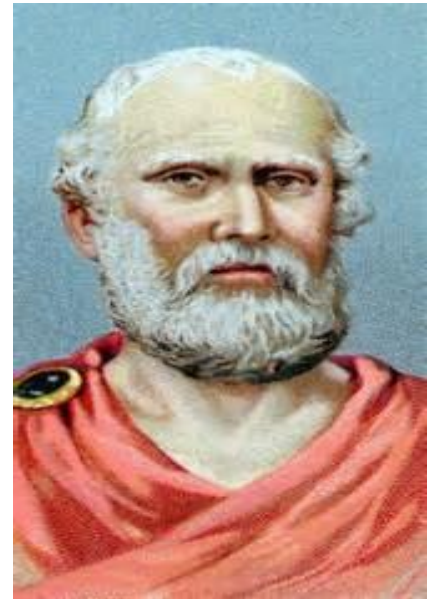
# There's Got To Be A Better Way

# Let's Start with the notion of **Patterns**

# What Can Art Add to Education?

“ I would teach children music, physics, and philosophy; but most importantly music (and poetry), for the **patterns** in music and all the arts are the keys to learning.”

*Plato*



# The Human Brain is a Pattern Detector

frontiers in  
NEUROSCIENCE

REVIEW ARTICLE  
published: 22 August 2014  
doi: 10.3389/fnins.2014.00265



## Superior pattern processing is the essence of the evolved human brain

Mark P. Mattson<sup>1,2\*</sup>

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<sup>2</sup> Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, MD, USA

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Humans have long pondered the nature of their mind/brain and, particularly why its capacities for reasoning, communication and abstract thought are far superior to other species. This article considers superior pattern processing (SPP) as the fundamental basis of most, if not all, unique features of the human brain including intelligence, language, imagination, invention, and the belief in imaginary entities such as ghosts and gods. SPP involves the electrochemical, neuronal network-based, encoding, integration, and transfer to other individuals of perceived or mentally-fabricated patterns. During human evolution, pattern processing capabilities became increasingly sophisticated as the result of expansion of the cerebral cortex, particularly the prefrontal cortex and regions involved in processing of images. Specific patterns, real or imagined, are reinforced by emotional experiences, indoctrination and even psychedelic drugs. Impaired or dysregulated SPP is fundamental to cognitive and psychiatric disorders. A broader understanding of SPP mechanisms, and their roles in normal and abnormal function of the human brain, may enable the development of interventions that reduce irrational decisions and destructive behaviors.

**Keywords:** evolution, hippocampus, language disorders, religion and science, neuronal network

### INTRODUCTION

The fundamental function of the brains of all animals is to encode and integrate information acquired from the environment through sensory inputs, and then generate adaptive behavioral responses. Sensory information is first rapidly encoded as pat-

terns, which is well-characterized in apes, was a precursor to language during human evolution (Liebal et al., 2004; Tomasello, 2008).

The cognitive repertoire of humans far exceeds that of all other animals, and understanding the neurobiological basis of this superiority is therefore of interest not only to scientists,



# Psychology Today

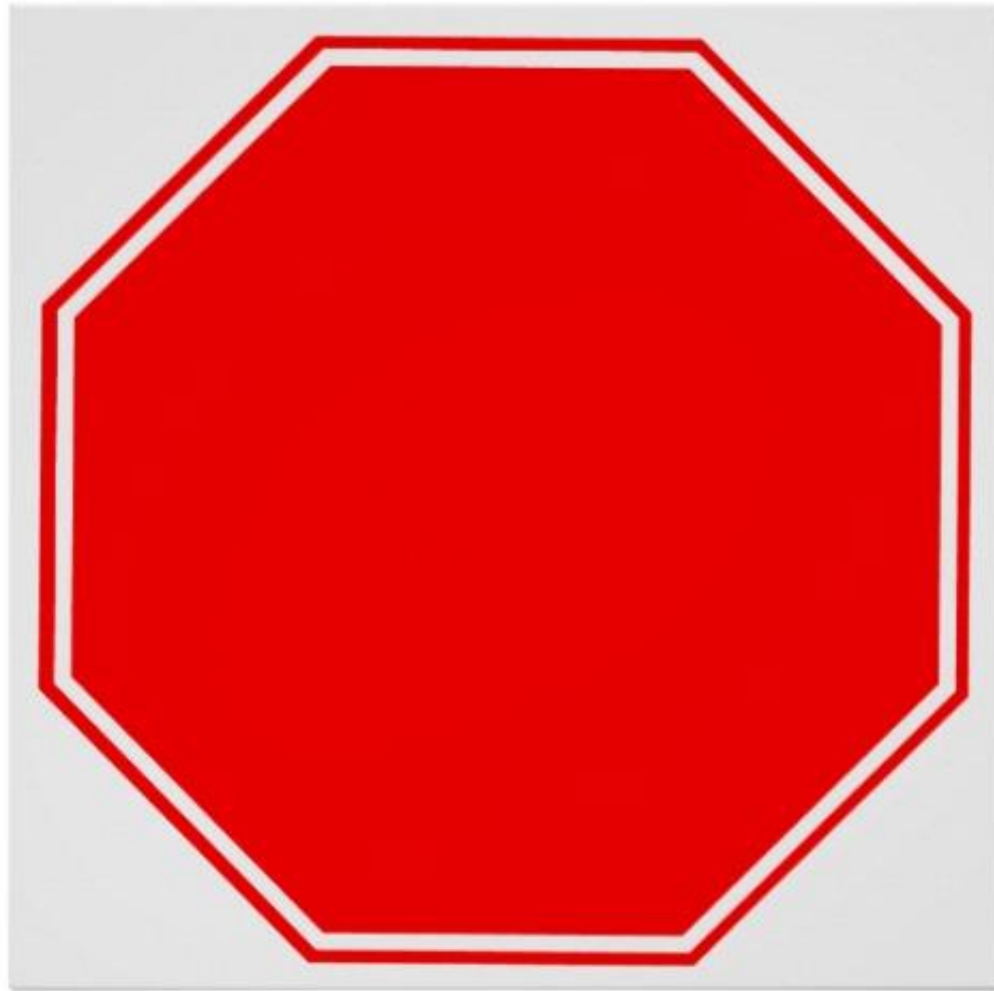
Today ✓

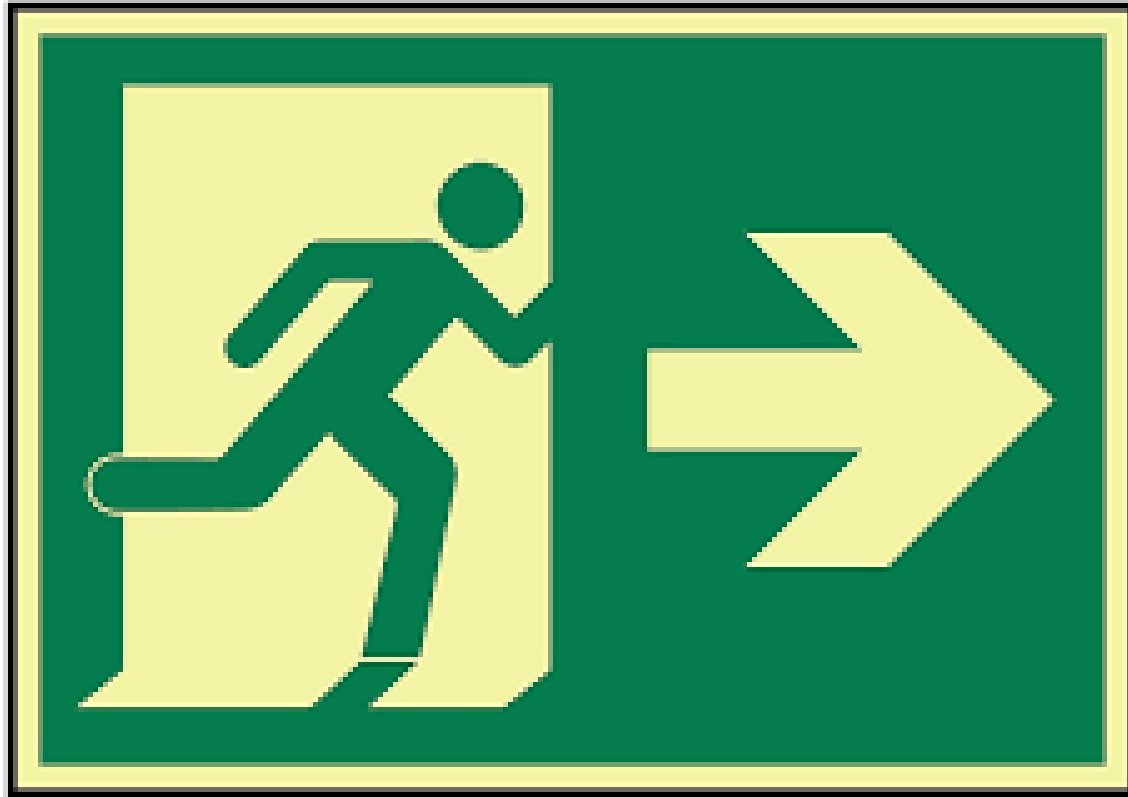


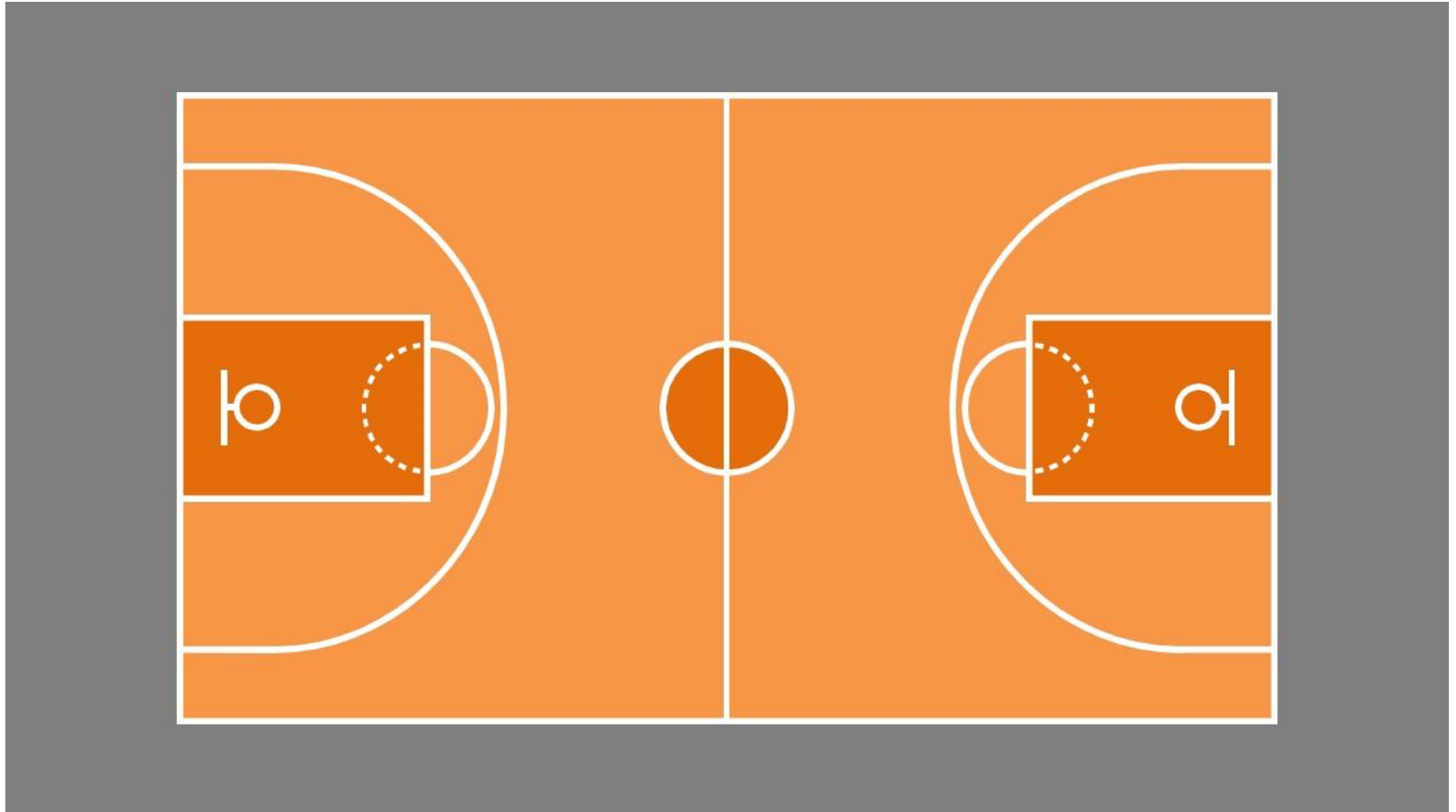
## KEY POINTS

- Humans can't help but look for patterns and find structure in the information coming their way.
- The neocortex, the outermost layer of the brain, is found only in mammals and is responsible for humans' ability to recognize patterns.
- Although computer algorithms can spot patterns, an algorithm has not yet been developed that outperforms the human mind.

"Over centuries of evolution, humans' pattern recognition skills determined natural selection. Hunters skilled at spotting prey and predator and telling poisonous plants from healthy ones offered them a better chance of survival than those blind to the patterns. It enabled the survivors to pass on those











**There are also  
Linguistic Patterns help us  
negotiate written language**

# Primary Grades

## Phonics Word Patterns

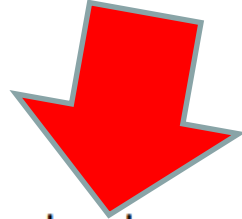
### Word Families/Phonograms/Rimes

BY ADDING A BEGINNING LETTER(S) TO THESE WORD FAMILIES, STUDENTS CAN SPELL AND READ **654** ONE SYLLABLE WORDS (AND THOUSANDS OF MULTISYLLABIC WORDS!)

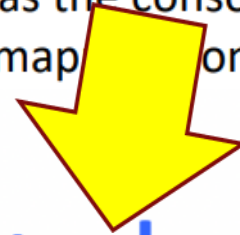
-AB	-AT	-INK	-ORE	-UNK
-ACK	-AY	-IP	-OT	-Y
-AG	-ELL	-IGHT	-OUT	
-AIL	-EST	-ILL	-OW (HOW, CHOW)	
-AIN	-EW	-IM	-OW (BOW, THROW)	
-AM	-ED	-IN	-OP	
-AN	-EED	-INE	-UCK	
-ANK	-ICK	-OB	-UG	
-AP	-ING	-OCK	-UM	

SOURCE: FRY, E. (1998). THE MOST COMMON PHONOGRAMS. *THE READING TEACHER*.

## **Consolidated-alphabetic phase:** students consolidate their knowledge of grapheme-phoneme blends into larger units that recur in different words.



When readers reach the **consolidated alphabetic phase**, they begin to use chunks to decode, rather than individual phonemes. Phonograms, or multi-letter patterns, such as consonant blends, digraphs, and vowel teams, are consolidated in memory and recognized instantly, as are common word families, affixes, and other common letter patterns. Syllables and morphemes are also recognized as chunks. In fact, Ehri (2014) has referred to this phase as the consolidated grapho-syllabic and grapho-morphemic phase. Orthographic mapping continues to develop as these chunks become more instantly recognizable, and readers more readily teach themselves new connections (Share, 1995).



**spl + ash =**



This is considered the most mature form of reading. Typically, this phase begins sometime in second grade and continues to develop as readers become more

# -ash

- Sash
- Cash
- Lash
- Clash
- Crash
- Smash
- Splash
- Trash
- Flash
- Gnash
- Stash
- Hash
- Brash
- Rash
- Thrash
- Flashlight

**-am**

- **Ham**
- **Bam**
- **Jam**
- **Pram**
- **Ram**
- **Sam**
- **Slam**
- **Clam**
- **Cram**
- **Scram**



# -am

- Ham
- Bam
- Jam
- Pram
- Ram
- Sam
- Slam
- Clam
- Cram
- Scram

Vampire

Ambulance

Camera

Family

Trampoline

Scramble

Famish

Shamble

Sample

Amsterdam

**-an**

- **Can**
- **Dan**
- **Jan**
- **Pan**
- **Plan**
- **Ran**
- **Van**
- **Scan**

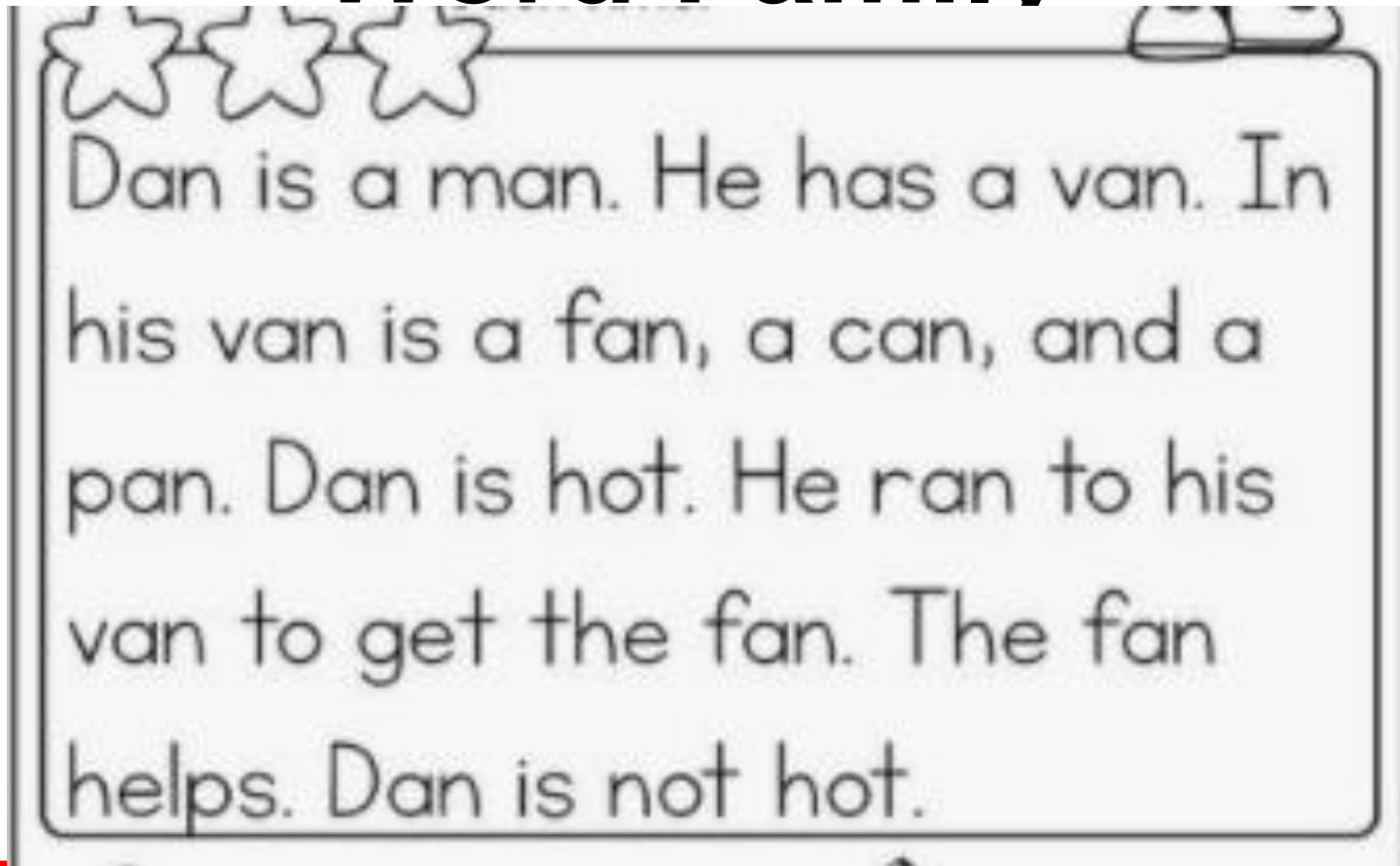
# -an

- Can
  - Dan
  - Jan
  - Pan
  - Plan
  - Man
  - Van
  - Scan
- Candle  
Dandy  
Sandal  
Mandolin  
Vanish  
Transport  
Expansion  
Canada

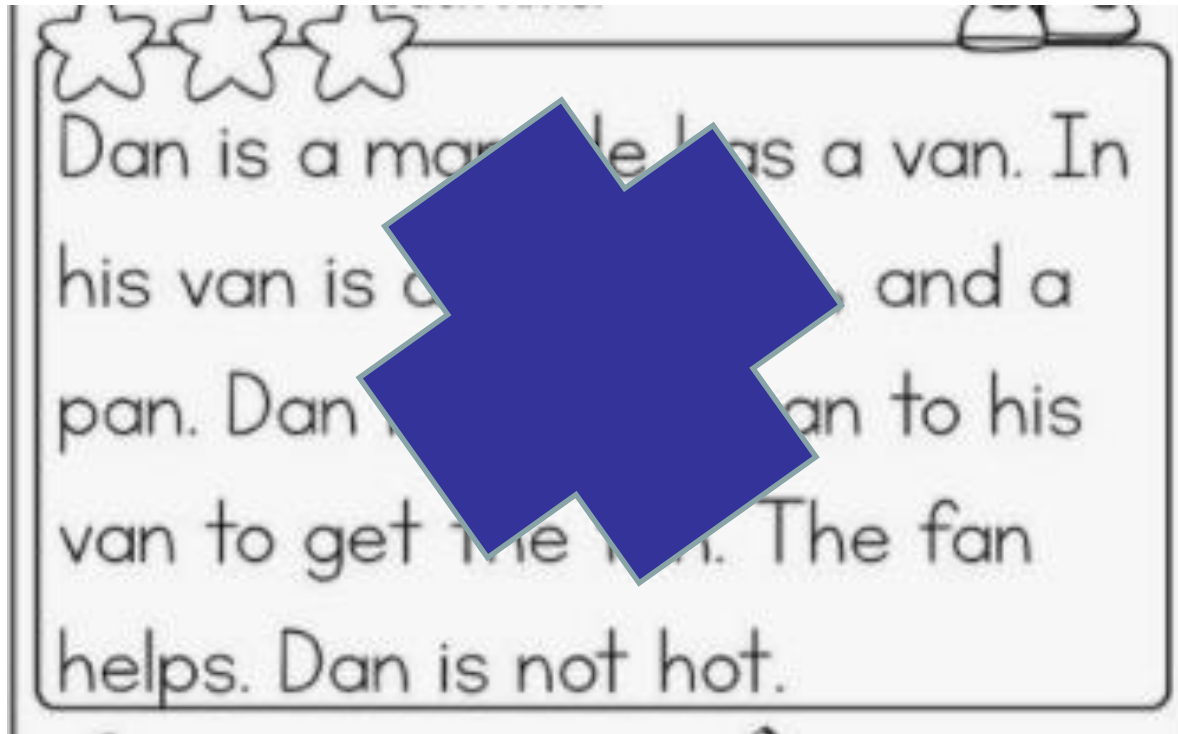
# Then What?

# Decodables

## -Word Family-



# Word Family Decodable Texts



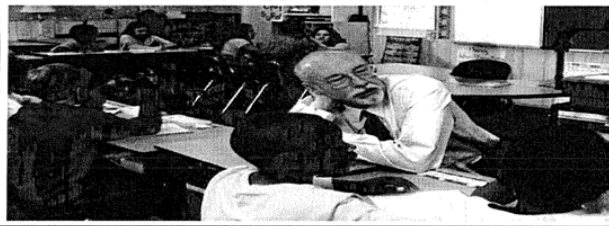


# Try Poetry for Word Families,

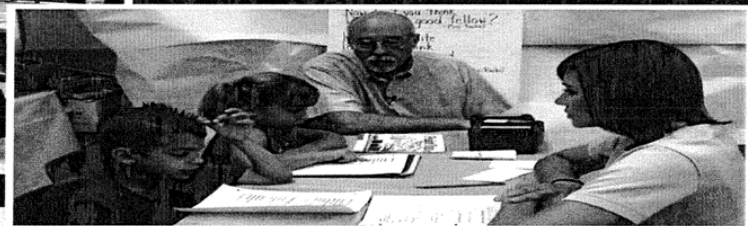
**T**EACHING LITERACY

## What's The Perfect Text for Struggling Readers? Try Poetry!

by Timothy Rasinski and Belinda Zimmerman



Rasinski and Zimmerman with students



**B**elinda Zimmerman was walking down the school hallway when second grader Zach popped out of his classroom. He went directly up to her and asked, "Mrs. Z, want to hear me read my new poem that Mr. Rasinski wrote?"

"Absolutely," replied Belinda with a broad smile. She walked Zach to a quiet area in the hall and asked Zach to perform. After a brief cough to clear his throat, Zach held out the paper containing his poem and in his best expressive voice read:

There's a long sunny season called summer.  
When it's over kids say, "What a bummer!"  
It's soon time for school  
Which can be awfully cool  
If you don't want to get any dummer!

Belinda chuckled, put her arm around Zach, and told him

followed by supported practice with feedback, Zach and his classmates were eventually able to read the poem with good expression and confidence.

Each day in our reading clinic, students master one or two poems and perform them for classmates, teachers, and other adults. We have come to view the practice and performance of poetry as key to our students' growth in reading.

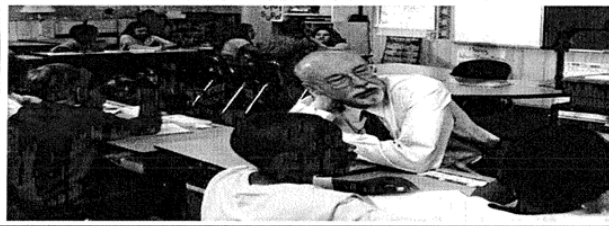
All of the students who come to our summer program, which we call Camp Read-a-Lot, exhibit reading difficulties, primarily in comprehension. However, a closer examination of most students' reading indicates that difficulties in word recognition and fluency (Foundational Reading Skills according to the Common Core State Standards) are a primary cause of their comprehension problems.

# Try Poetry for Word Families, (Poetry also Promotes Fluency!)

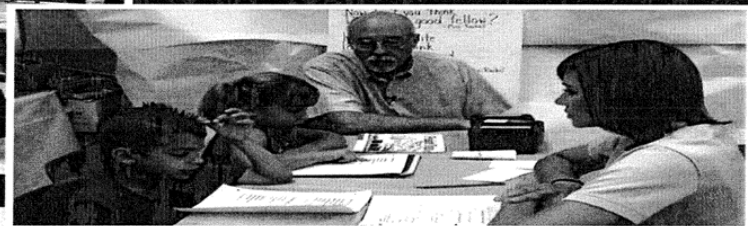
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# Word Family Authentic Decodable Texts - ight

Star light, star bright  
First star I see tonight  
I wish I may I wish I might  
Have the wish I wish tonight.

# Word Family Authentic Decodable Texts - ight

Star light, star bright

First star I sea tonight

I wish I may I wish I might

Have the wish I wish tonight.

# Word Family Authentic Decodable Texts - ight

Star light, star bright

First star I see tonight

I wish I may I wish I might

Have the wish I wish tonight.

# **Diddle Diddle Dumpling**

## **- on**

**Diddle diddle dumpling**

**My son Jon**

**Went to bed with his stockings on**

**One shoe off, one shoe on.**

**Diddle diddle Dumpling**

**My son Jon**



# Ditto Datto Dumpling

-at

Ditto d**at**to dumpling

My son P**at**

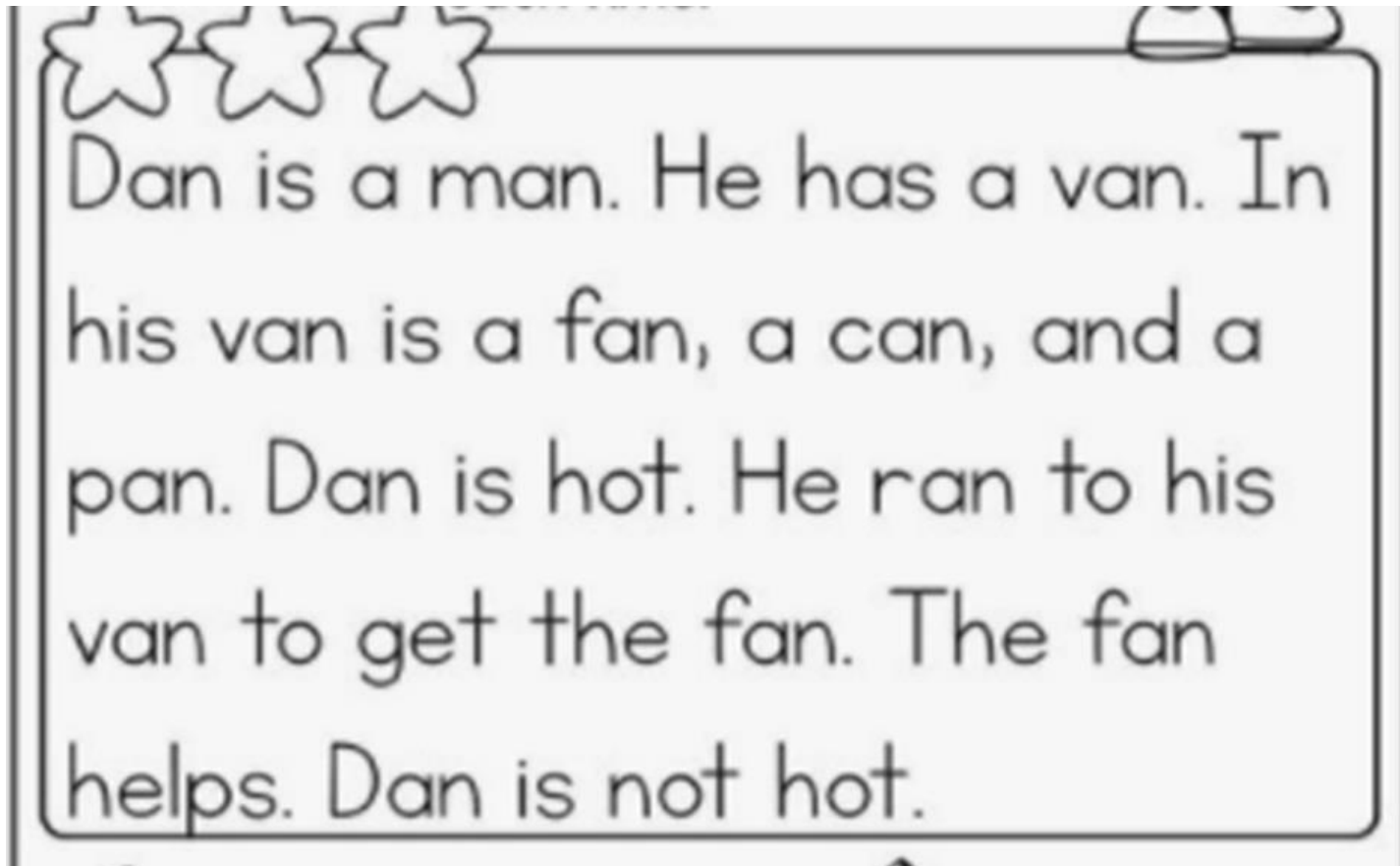
Had a shaggy dog and a mighty f**at** c**at**.

The c**at** was a bother so he told him to sc**at**.

Ditto d**at**to dumpling

My son P**at**

# Instead of this...



Try this...

## An **-an** Poem We Make Ourselves

Diddle d**an**dle dumpling

H**an**na and St**an**

Had a dog and his name was D**an**.

D**an** had fur that was brown and t**an**.

Diddle d**an**dle dumpling

H**an**na and St**an**.

# The Garden Song

by David Mallett

*Inch by inch, row by row*

*Gonna make this garden grow*

*Gonna mulch it deep and low*

*Gonna make it fertile ground*

*Inch by inch, row by row*

*Please bless these seeds I sow*

*Please keep them safe below*

*'Till the rain comes tumbling down*

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# Something Under My Bed

Diddle diddle dumpling my son fred

Slept all day on his bed

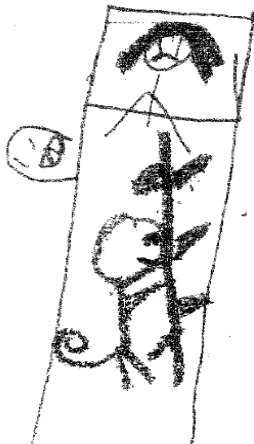
Woke up at midnight.

creamed there's a monster under my bed!

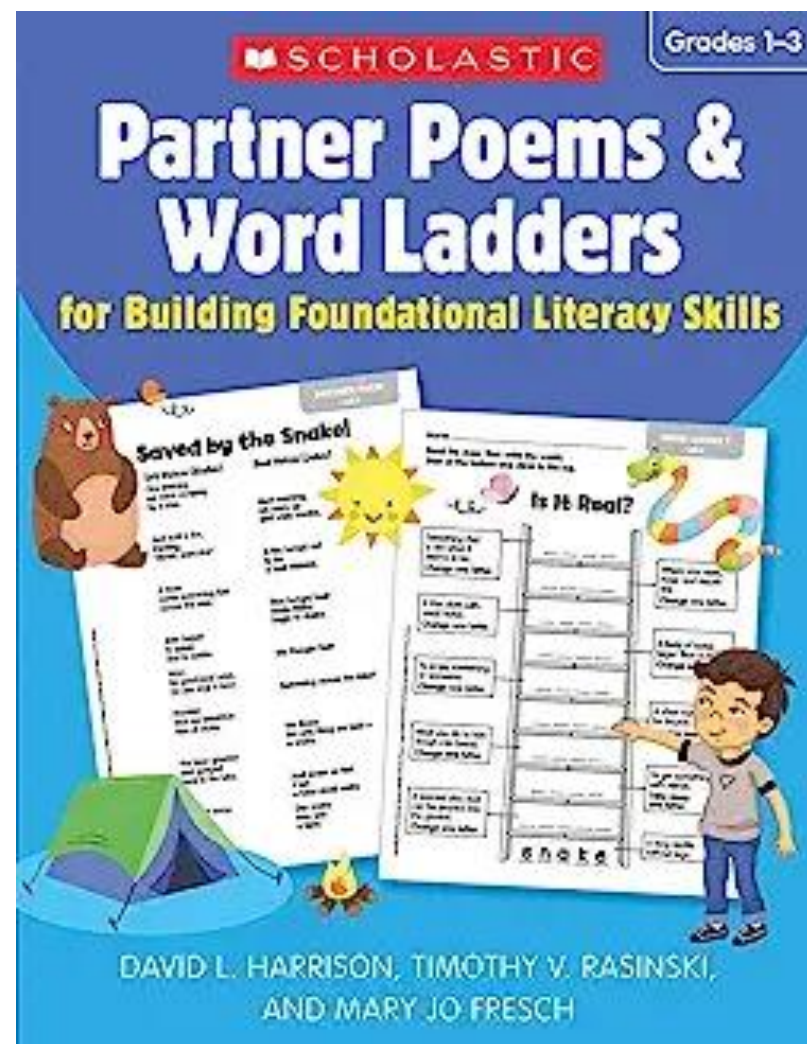
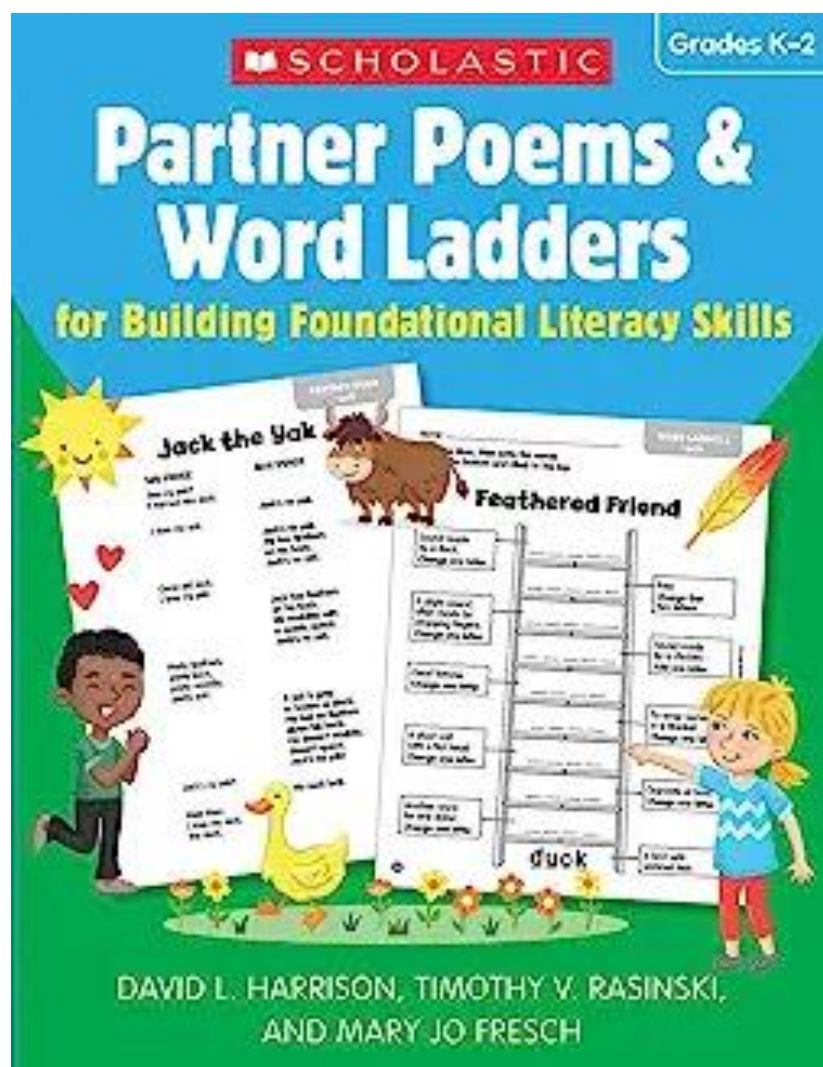
Diddle diddle dumpling my son fred

By

Jaylen







## 75 MOST COMMON WORD FAMILIES

To Create a World in which Children Love to Learn!

**That's Phonics  
(and Phonics is Important)...**

**But what about  
Vocabulary? Word  
Meanings**

(2)

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This?

# There's Got to be a Better Way to Build Vocabulary

# There's Got to be a Better Way More Word Patterns

## Vocabulary...Morphology/Morpheme

It's all Greek to me!



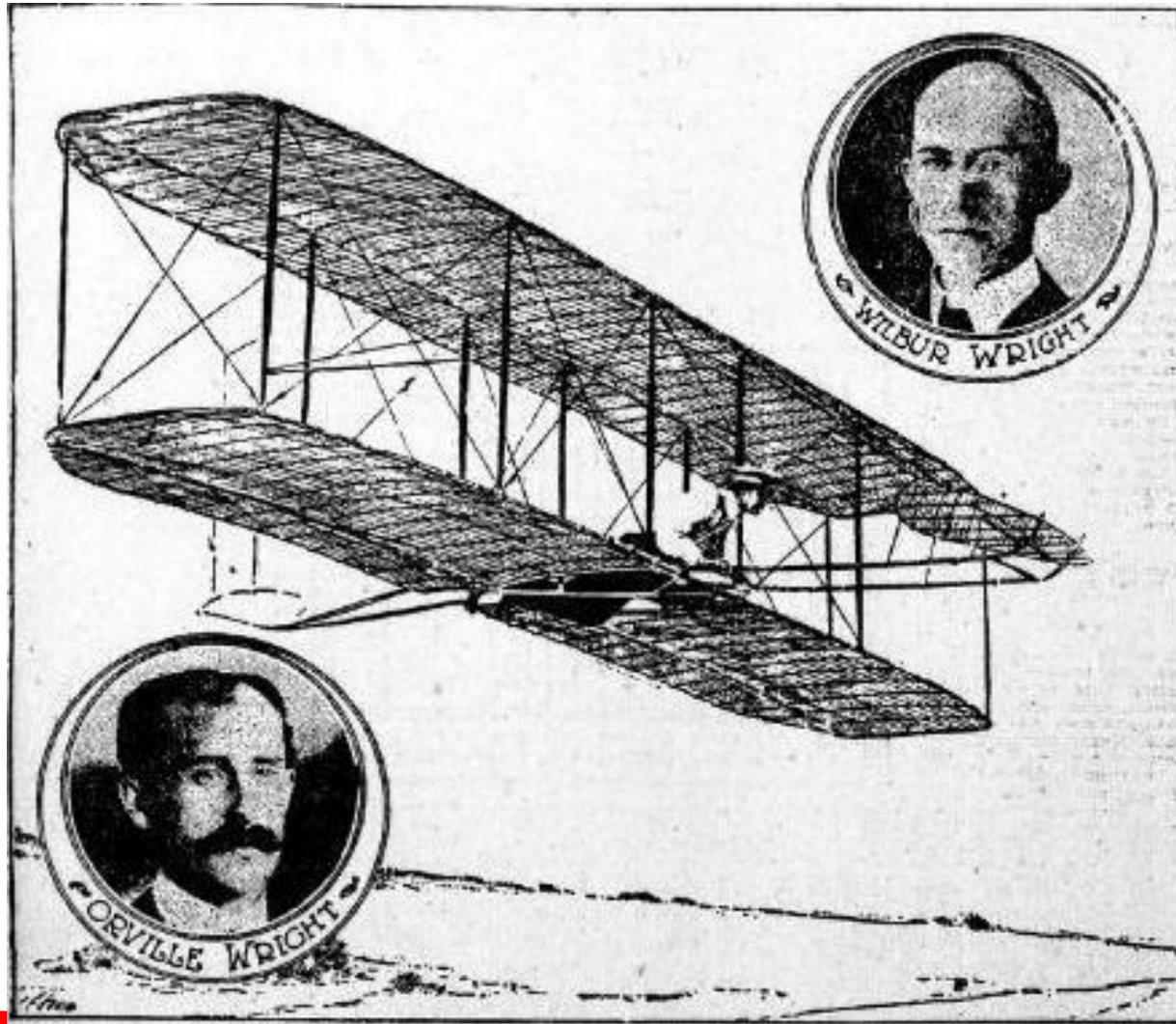
# Vocabulary.....

**It's all Greek to me!**

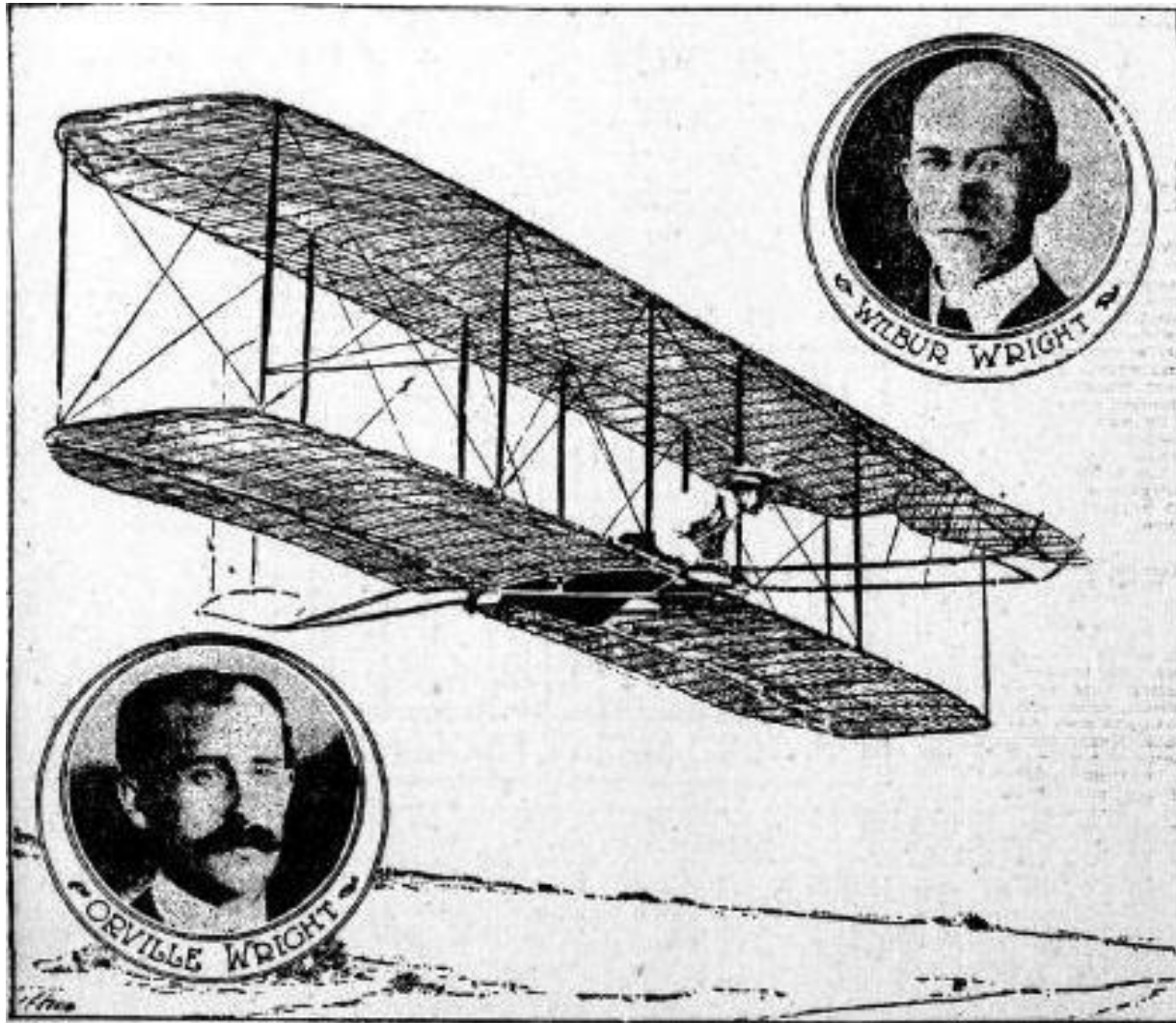
**It should be all **Greek (and Latin)** if you really want to build students' vocabularies!**



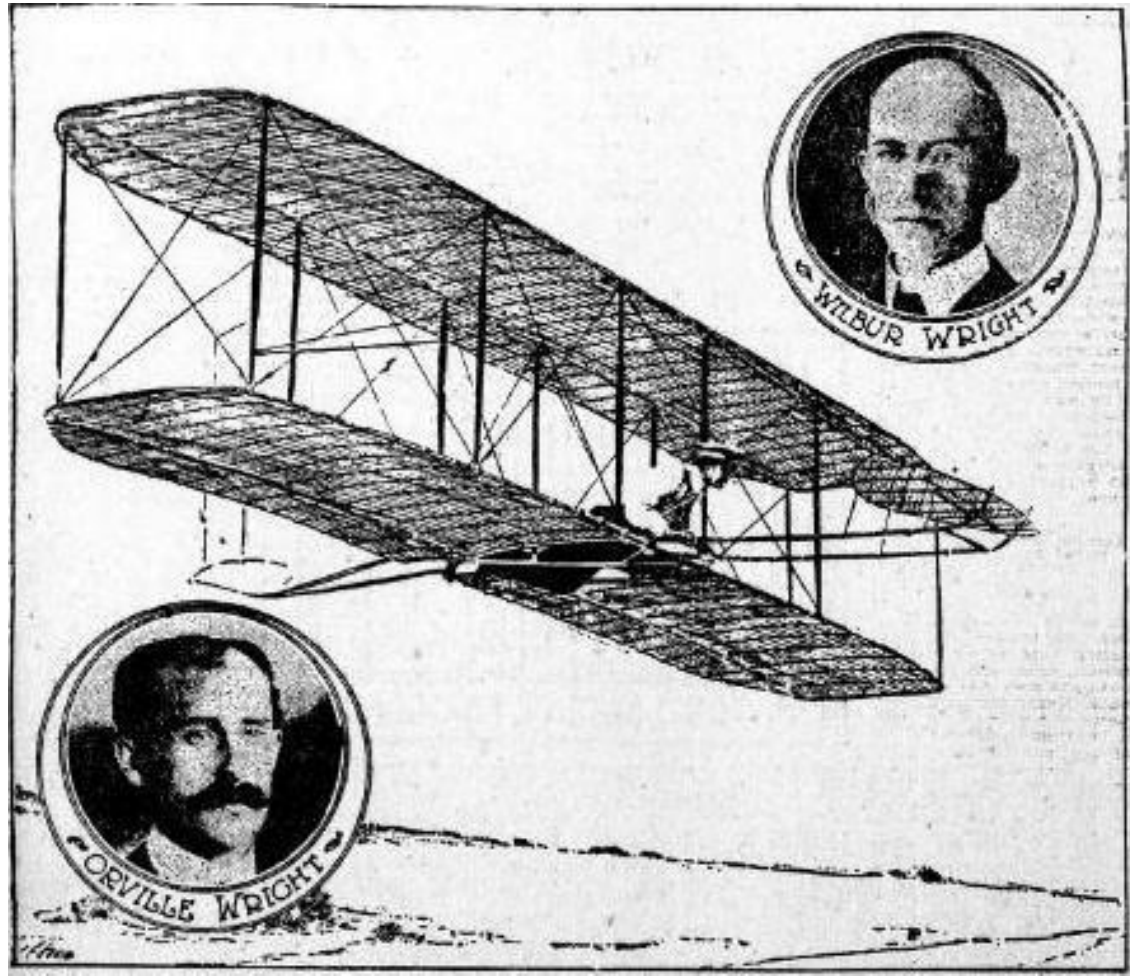
# The Wright Brothers!



# “biplane” (12 times)



**“bip-lane”**  
**“bip-lane”**  
**“bip-lane”**  
**“bip-lane”**  
**“bip-lane”**



# Morphology

- **Morpheme**

Word Part that represents meaning:

**dog, cat, butter, view**

# Morphology

- **Morpheme**

Word Part that represents meaning:

**dog, cat, butter, view**

**dogs, cats, butterfly, preview**

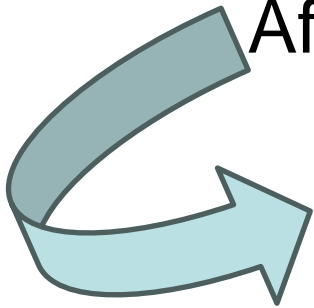


# Morphology

- **Morpheme**

Word Part that represents meaning:

Affixes (prefixes and suffixes)



**re-, pre-, ex-, tri-, un-, anti, trans, semi-  
-ed, -s/-es, -or, -ly, -able, -acy**

# Morphology

- **Morpheme**

Word Part that represents meaning:

Affixes (prefixes and suffixes)

**re-, pre-, ex-, tri-, un-, anti, trans, semi-  
-ed, -s/-es, -or, -ly, -able, -acy**

But Morphemes are more than just affixes...

**Base Word Roots**

**cred, phil, phon, photo, polis, script**



# **So Why a Word Roots (Morphology) Approach to Vocabulary Instruction?**

## **EIGHT REASONS**

# Vocabulary..... Why Roots?

**1. Word Roots are Easily  
Recognizable/Decodable Word  
Sound *Patterns***

***Bi-***

***Terra-***

***Phil/Phile***

# Vocabulary..... Why Roots?

1. Word Roots are Easily Recognizable/Decodable Word *Patterns* that represent *Meaning* as well as *Sound*

<b>Bi-</b>	<b>Two</b>	<b><i>Biplane, Bicameral</i></b>
------------	------------	----------------------------------

<b>Terra-</b>	<b>Land</b>	<b><i>Terrain, Territory</i></b>
---------------	-------------	----------------------------------

<b>Phil/Phile</b>	<b>Love</b>	<b><i>Anglophile, Philosopher</i></b>
-------------------	-------------	---------------------------------------

## 2. Word Roots are Generative!



word

word

word

word

word

# **Bi-** Means “2” and Generates

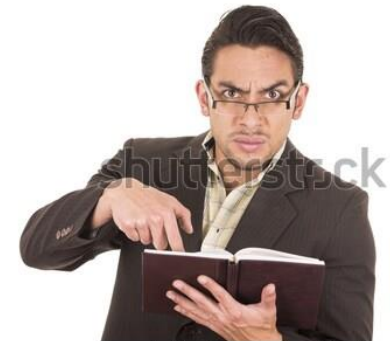
- **Bifocals**
- **Binoculars**
- **Bilingual**
- **Biceps**
- **Bicuspid**
- **Biannual**
- **Bipartisan**
- **Bicameral**
- **Bicentennial**
- **Bimonthly**
- **Bipolar**
- **Biracial**
- **Bicycle**
- **Bisect**
- **Biped**
- **Biplane**
- **Bifurcate**
- **Bilateral**
- **Bicolor**
- **Bigamy**
- **Bifunctional**

# Remember Mike's vocabulary list?

One of his words was "conjecture"

conjecture - n. guess, inferring without complete evidence

What if Mike's teacher had chosen to focus on the word root **ject/jet** instead?



# “Ject/Jet” means “throw”

eject, jettison





# “Ject/Jet” means “throw”

Here are just a few more ject/jet words!

*eject, jettison, project, object,  
reject, abject, subject, adjective,  
rejection, projector, inject, interject,  
dejected, conjecture, trajectory,  
projectile, injection,  
objective, subjective...*



# TRAC-, TRACT-

*“pull, draw, drag”*

**TRACE**  
**TRACTION**  
**TRACTOR**



# Roots/Cognates with Affixes

abs-

sub-

at-

con-

de-

dis-

ex-

re-

**trac-tract-**  
*"pull, draw, drag"*

# Roots/Cognates with Affixes

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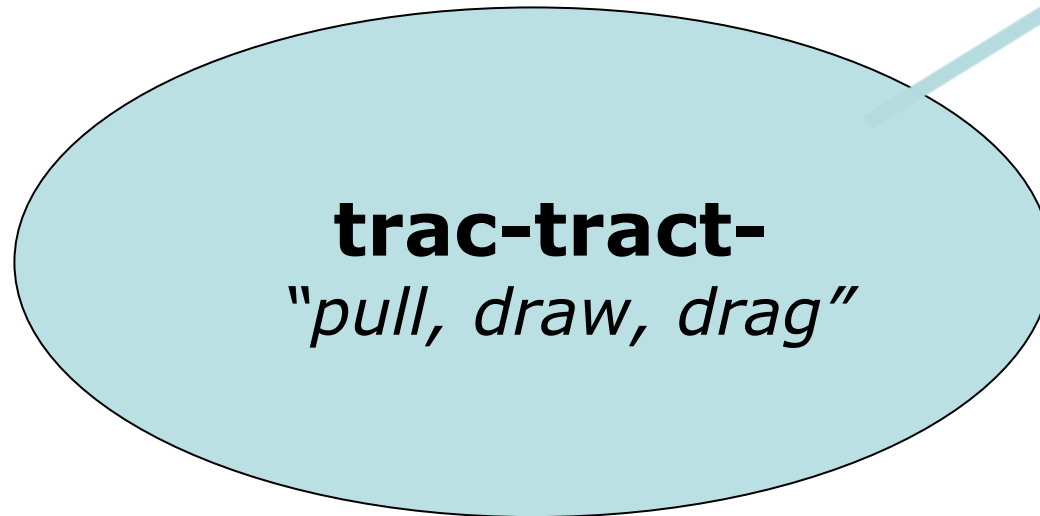
ex-

re-

**trac-tract-**  
*"pull, draw, drag"*

# Roots/Cognates with Affixes

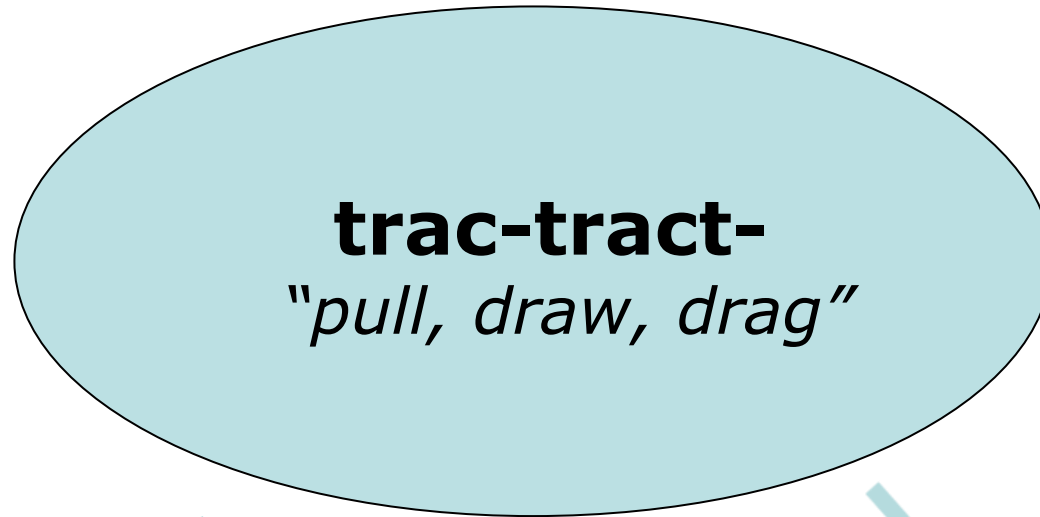
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at-  
con-  
de-  
dis-  
ex-  
re-  
**pro-**



-ion/tion  
-or  
-ory  
-ery  
-ful  
-ness  
-ology  
-ologist  
-ing  
-ed

# Roots/Cognates with Affixes

abs-  
sub-  
at-  
con-  
de-  
dis-  
ex-  
re-  
**pro-**



-ion/tion  
-or  
-ory  
-ery  
-ful  
-ness  
-ology  
-ologist  
-ing  
-ed

# **Tract** means “Pull, Draw, Drag” and Generates:

- Traction
- Trace
- Tractor
- Retract
- Retraction
- Retractable pen
- Abstract
- Attract
- Attractive
- Attraction
- Distract
- Subtract
- Extract
- Detract
- Contract
- Contractor
- Contraction
- Intractable
- Protractor
- Protracted

**140 English Words Belong to the  
Trac/Tract Word Root Family!**

### 3. Word Roots Cross Disciplines Disciplinary Literacy



**Timothy Shanahan** @ReadingShanahan · 4h

What should elementary schools do with disciplinary literacy?  
[shanahanonliteracy.com/blog/disciplin...](https://shanahanonliteracy.com/blog/disciplin...)



## TEACHING AND LEARNING

### NAEP: US history, geography scores drop



(Zach Gibson/Getty Images)

US history and geography scores among eighth-grade students have declined since 2014, while civics scores remained steady, according to results released Thursday by the National Assessment of Educational Progress, also known as the Nation's Report Card. Joel Breakstone, director of the Stanford History Education Group at Stanford University, asserts the history scores show that it is "under-prioritized," compared with other subjects.

**Full Story:** [Education Dive](#) (4/23), [Education Week](#) (tiered subscription model) (4/23)





# **National Assessment of Educational Progress – 2018 US History and Civics**

**Only 39% of American 8<sup>th</sup> graders performed at  
“satisfactory” or above.**

### **3. Why Word Roots?**

**Roots find their way into  
Academic Vocabulary**

**Upwards of 90% of academic and  
*research* related words are  
derive from Latin and Greek.**

## **MATH**

tangent  
secant  
diameter  
circumference  
centigrade  
parallel  
demographics  
kilogram  
subtract  
quadrangle  
polygon  
demometrics  
quarter

## **SCIENCE**

neonatal  
hematologist  
pandemic  
hydrophobia  
vertigo  
synchronize  
anemia  
excision  
specimen  
transfusion  
endemic  
extraction  
neonatal

## **SOCIAL STUDIES**

Congress  
segregation  
**democracy**  
polytheism  
philanthropy  
secession  
conservative  
controversial  
rebellion  
mobility  
consensus  
native  
pacifism

## **Building Vocabulary from Word Roots**



## MATH

tangent  
secant  
diameter  
circumference  
centigrade  
parallel  
demographics  
kilogram  
subtract  
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polygon  
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quarter

## SCIENCE

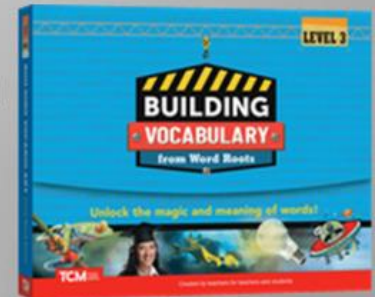
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hematologist  
pandemic  
hydrophobia  
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## Building Vocabulary from Word Roots



## MATH

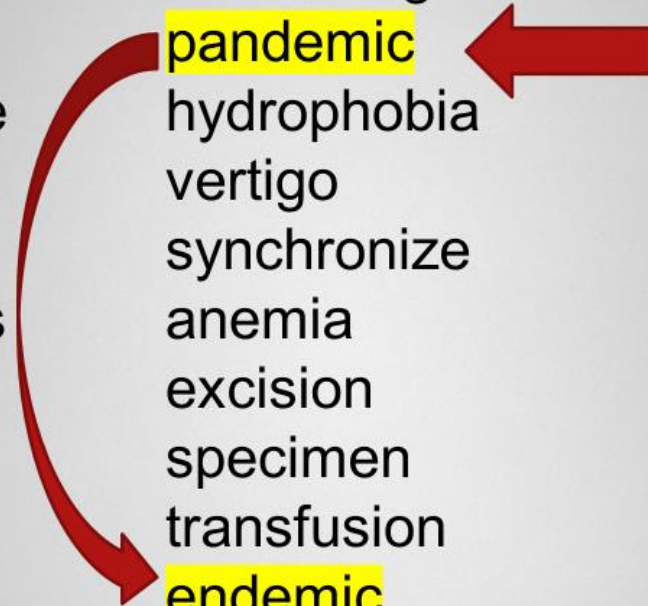
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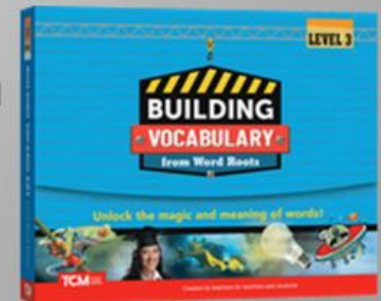
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## Building Vocabulary from Word Roots





## MATH

tangent  
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diameter  
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subtract  
quadrangle  
polygon  
**demometrics**  
quarter

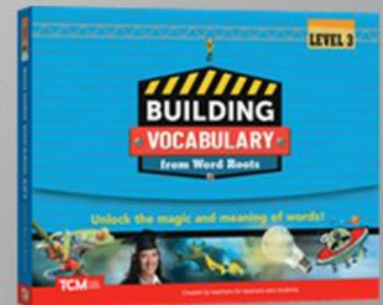
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# Building Vocabulary from Word Roots



## MATH

tangent  
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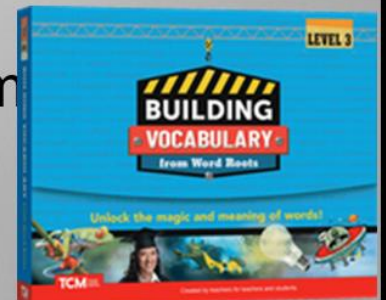
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## Building Vocabulary from Word Roots



## **4. Why Word Roots?**

**Knowledge of Word  
Roots/Morphemes improves  
Reading Comprehension**



LITERACY

## 3 Literacy Practices That Work

A literacy researcher shares three practices that are proven to be effective for early elementary learners.

By [Nell K. Duke](#)

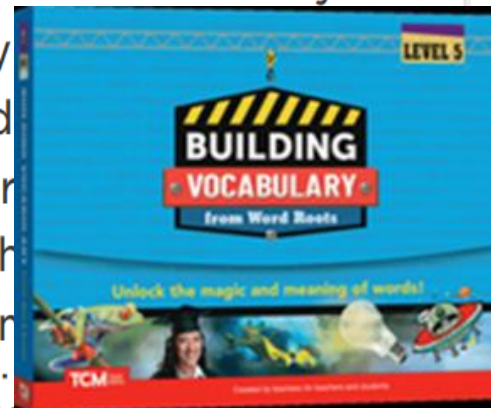
November 6, 2017



## 1. Morphology Instruction

Morphemes are the smallest meaning-carrying units in language. For example, there are three morphemes: *re-* meaning “again,” *work* meaning “purposeful effort,” and *-ed* signaling the past. Research indicates that morphology instruction fosters decoding, spelling, and vocabulary development (Goodwin & Ahn, 2013).

Teaching the meaning of affixes (prefixes and suffixes) and root words is a fairly widespread (and research-supported) practice, but morphology goes well beyond this. Students need to be taught to decompose and analyze words by morphemes, playing detective as they figure out how to figure out meaning or build a word with a particular meaning. Starting with words such as *cupcake*, *skateboard*, or *railroad* may be helpful. Over time



## READING &amp; LITERACY

# What Is Morphology? Should Teachers Include It in Reading Instruction?



By [Sarah Schwartz](#) — November 22, 2023 ⌚ 8 min read

The complexity of words only increases from there. In a recent analysis of 1,200 children's books designed for ages 7 and up found over 100,000 unique words—most of which included multiple morphemes. **"If you know something about morphology, it dramatically lessens the learning load of learning new words..."**

# What Does the Research Say?

A study of 111 middle grade students in an urban California school district found that...

***“Students with greater understanding of morphology***

Kieffer, M.J. & Lesaux, N. K. (2007). “Breaking down words to build meaning: Morphology, vocabulary and reading comprehension in the urban classroom. *The Reading Teacher* 61(2), pp. 134-144.

# What Does the Research Say?

A study of 111 middle grade students in an urban California school district found that...

***“Students with greater understanding of morphology also have higher reading comprehension scores...”***

Kieffer, M.J. & Lesaux, N. K. (2007). “Breaking down words to build meaning: Morphology, vocabulary and reading comprehension in the urban classroom. *The Reading Teacher* 61(2), pp. 134-144.

# What Does the Research Say?

*Review of Educational Research*  
June 2010, Vol. 80, No. 2, pp. 144–179  
DOI: 10.3102/0034654309359353  
© 2010 AERA. <http://rer.aera.net>



## **The Effects of Morphological Instruction on Literacy Skills: A Systematic Review of the Literature**

**Peter N. Bowers and John R. Kirby**  
*Queen's University*

**S. Hélène Deacon**  
*Dalhousie University*

*The authors reviewed all peer-reviewed studies with participants from pre-school to Grade 8 for this meta-analysis of morphological interventions*

# Results indicate that

- **a) Morphological instruction benefits all learners.**



# Results indicate that

- a) Morphological instruction benefits all learners.
- **b) It brings particular benefits for less able readers**

# Results indicate that

- a) Morphological instruction benefits all learners.
- b) It brings particular benefits for less able readers
- **c) It is no less effective for younger students**

# What Do the Standards Say?

**Key word roots** build conceptual knowledge that allows students to make **semantic connections** between words. The study of morphology (roots) help students ***understand how words work.***



5TH GRADE

Illinois  
Learning  
Standards



Ohio's Learning Standards



English Language Arts Standards Revision

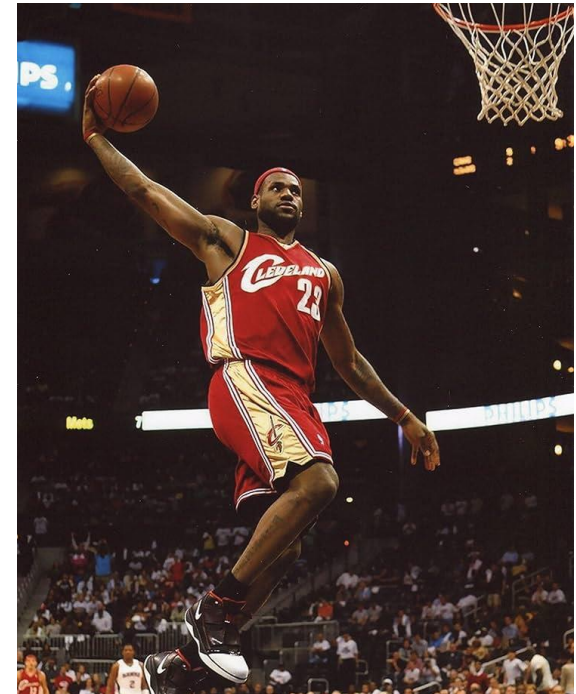


## **5. Why Word Roots?**

**Word Roots Develops  
Students' Curiosity About  
Words**

# Roots Foster Curiosity About Words

## Akron, Ohio



# Curiosity About Words

## Akron

**acro = high or first**



***Acropolis***

***Acrophobia***

***Acrobat***

***Acronym***



# Akron

## Highest Spot in the State of Ohio?



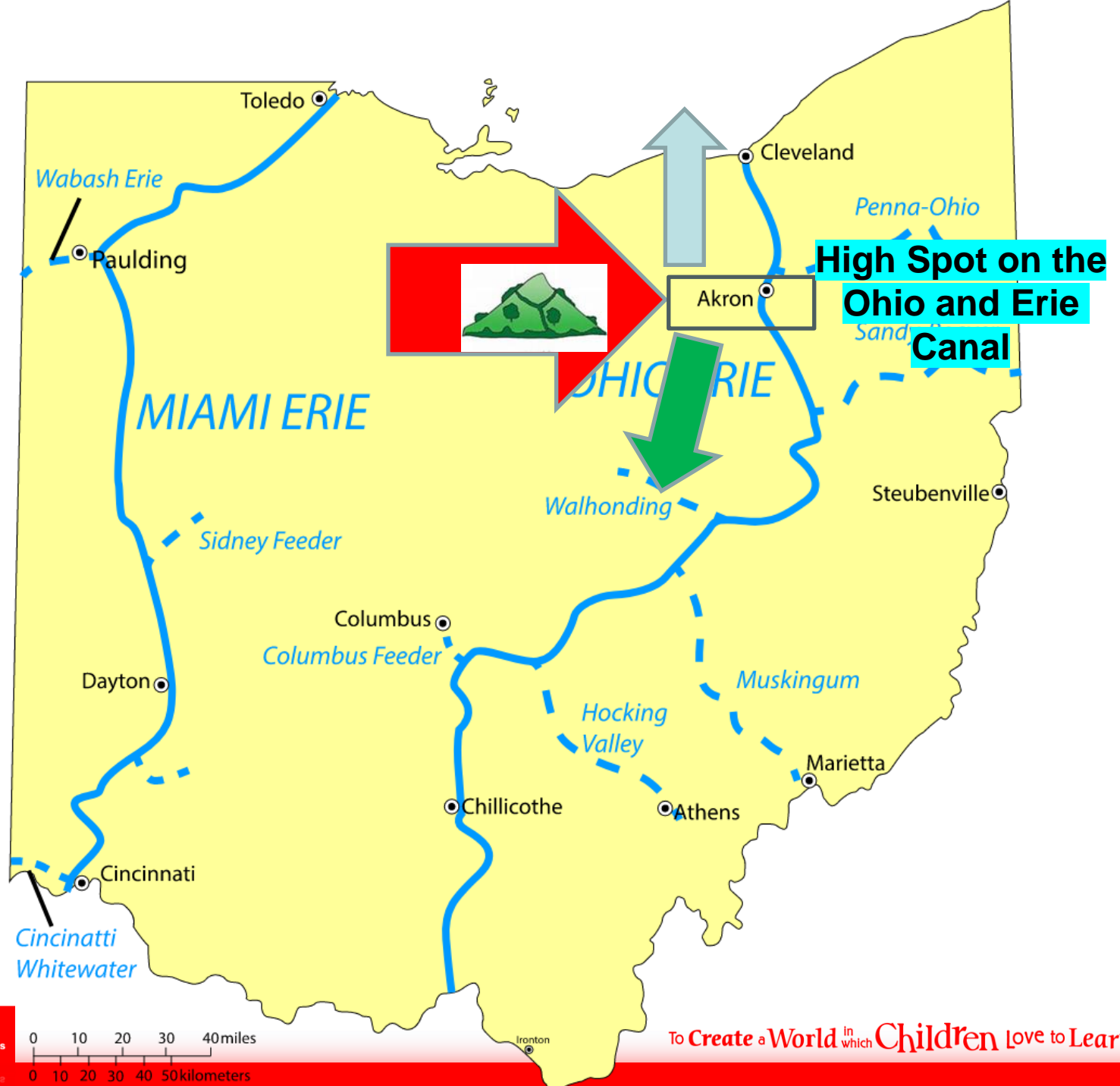
# Akron

## Highest Spot in the State of Ohio?

**Wrong**



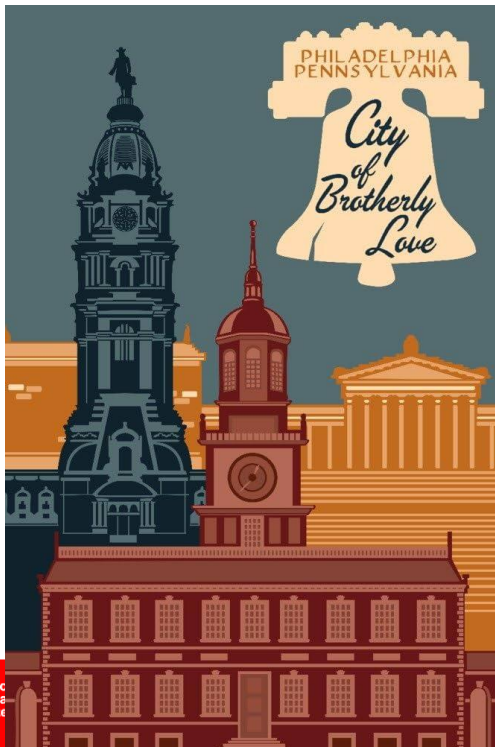




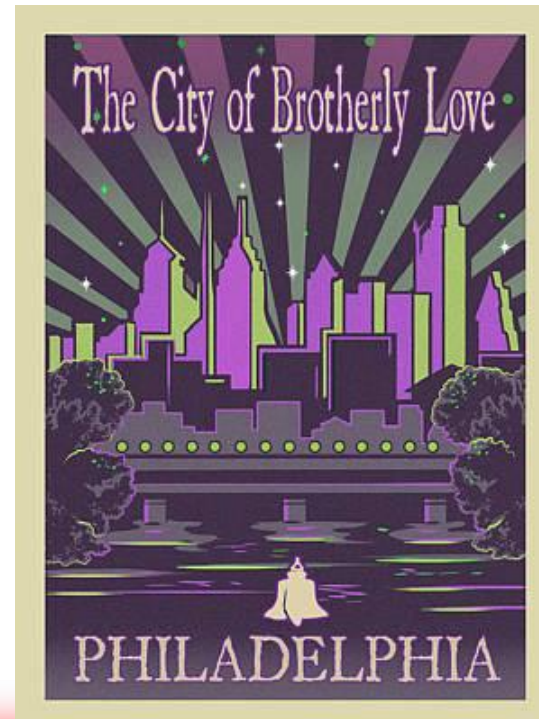
# Did You Know?

## How Philadelphia Got its Name?

**Phil/Phile = Love**



**Adelphos = Brother**



# EXT: A.Word.A.Day--neophile



Wordsmith <[wsmith@wordsmith.org](mailto:wsmith@wordsmith.org)>

To Rasinski, Timothy



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[Click here to download pictures](#). To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

## A.Word.A.Day

with Anu Garg

**neophile**

EXT: A.Word.A.Day--neophile



Wordsmith <wsmith@wordsmith.org>

To Rasinski, Timothy



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Click here to download pictures. To help protect your privacy, Outlook prevented automatic download

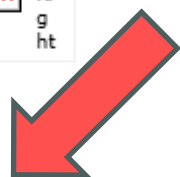
A.Word.A.Day

with Anu Garg

**neophile**

PRONUNCIATION:

(NEE-uh-fyl)



MEANING:

*noun:* One who loves new or novel things.

**Do you know anyone who is a neophile?**

ETYMOLOGY:

From Greek neo- (new) + -phile (lover). The opposite is [neophobic](#).



**6.**

**So How to Make  
Word Root/Morphology Study  
Actually Happen?**

# **So How to Make Word Root/Morphology Study Happen? Weekly Instructional Routine Ten Minutes Per Day**

# **So How to Make Word Root/Morphology Study Happen?**

**Ten Minutes Per Day**



**Have a  
Weekly  
Word Root  
Focus**

# **So How to Make Word Root/Morphology Study Happen?**

Ten Minutes Per Day

**Spaced & Varied vs Massed Practice**



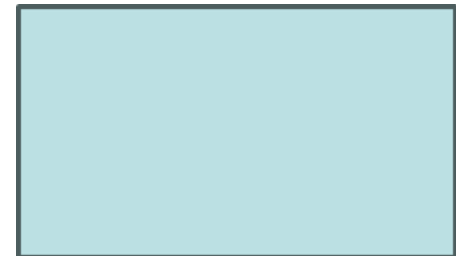
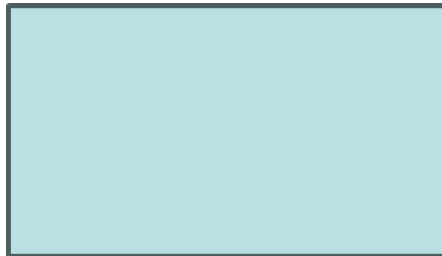
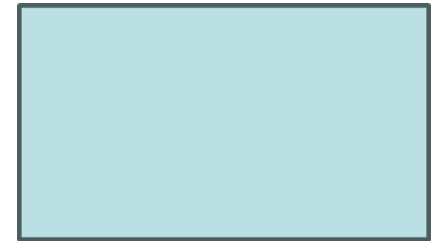
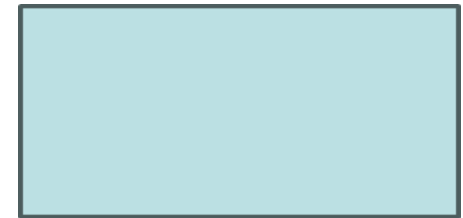
**Weekly  
Word Root  
Focus**

# So How to Make Word Root/Morphology Study Happen? Weekly Routine

## Ten Minutes Per Day

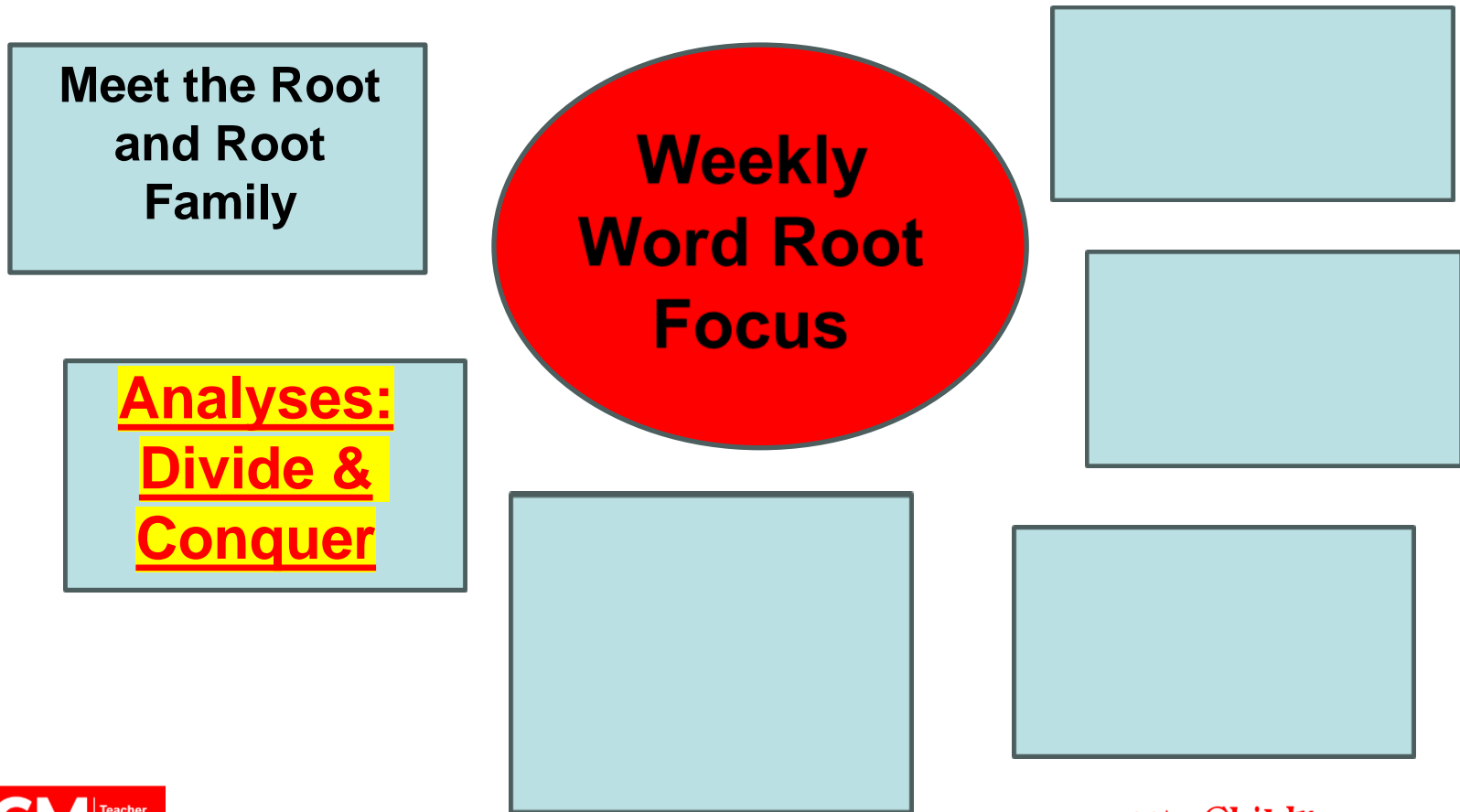
**Meet the Root  
and Root  
Family**

**Weekly  
Word Root  
Focus**



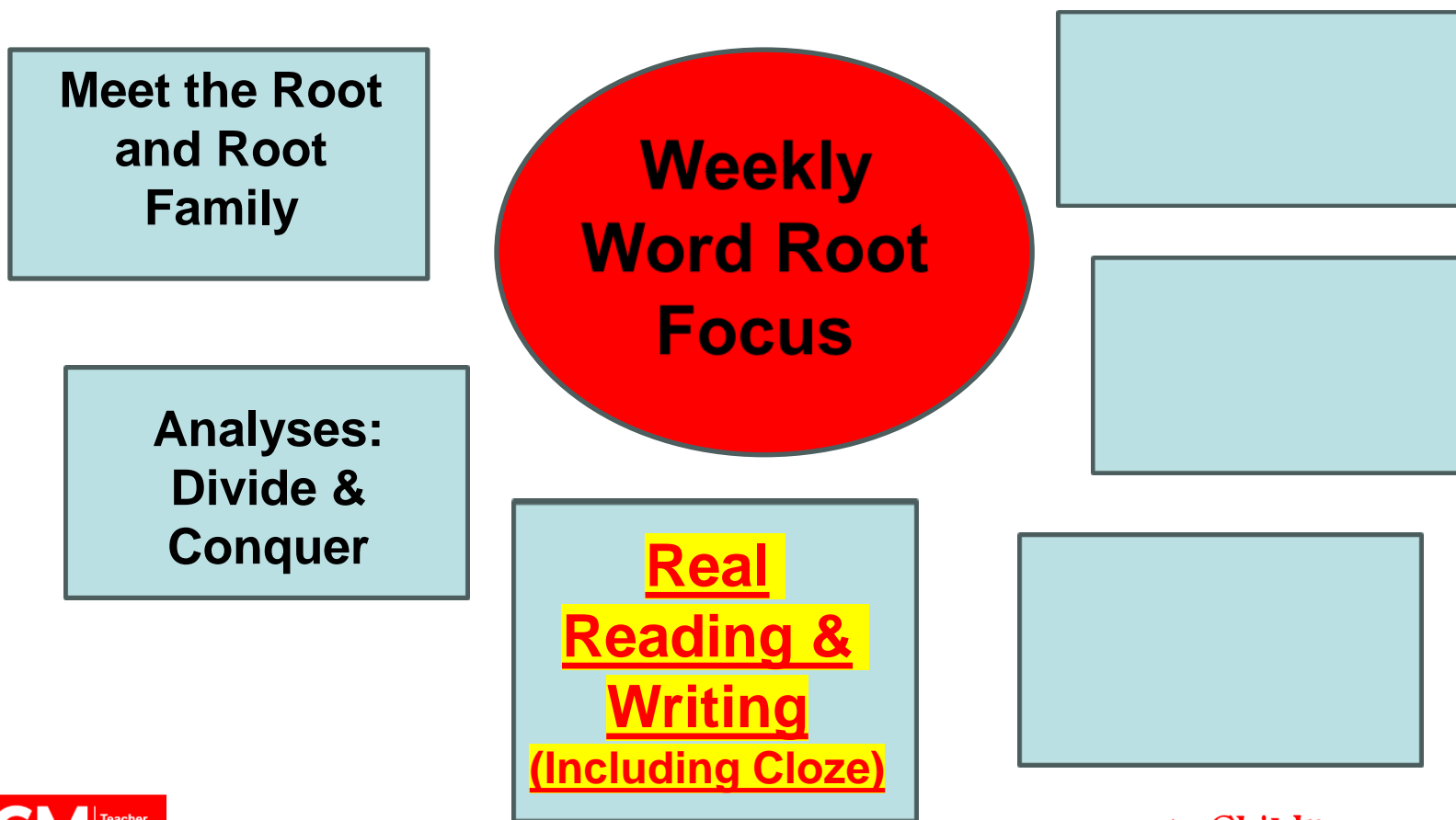
# So How to Make Word Root/Morphology Study Happen?

## Ten Minutes Per Day



# So How to Make Word Root/Morphology Study Happen?

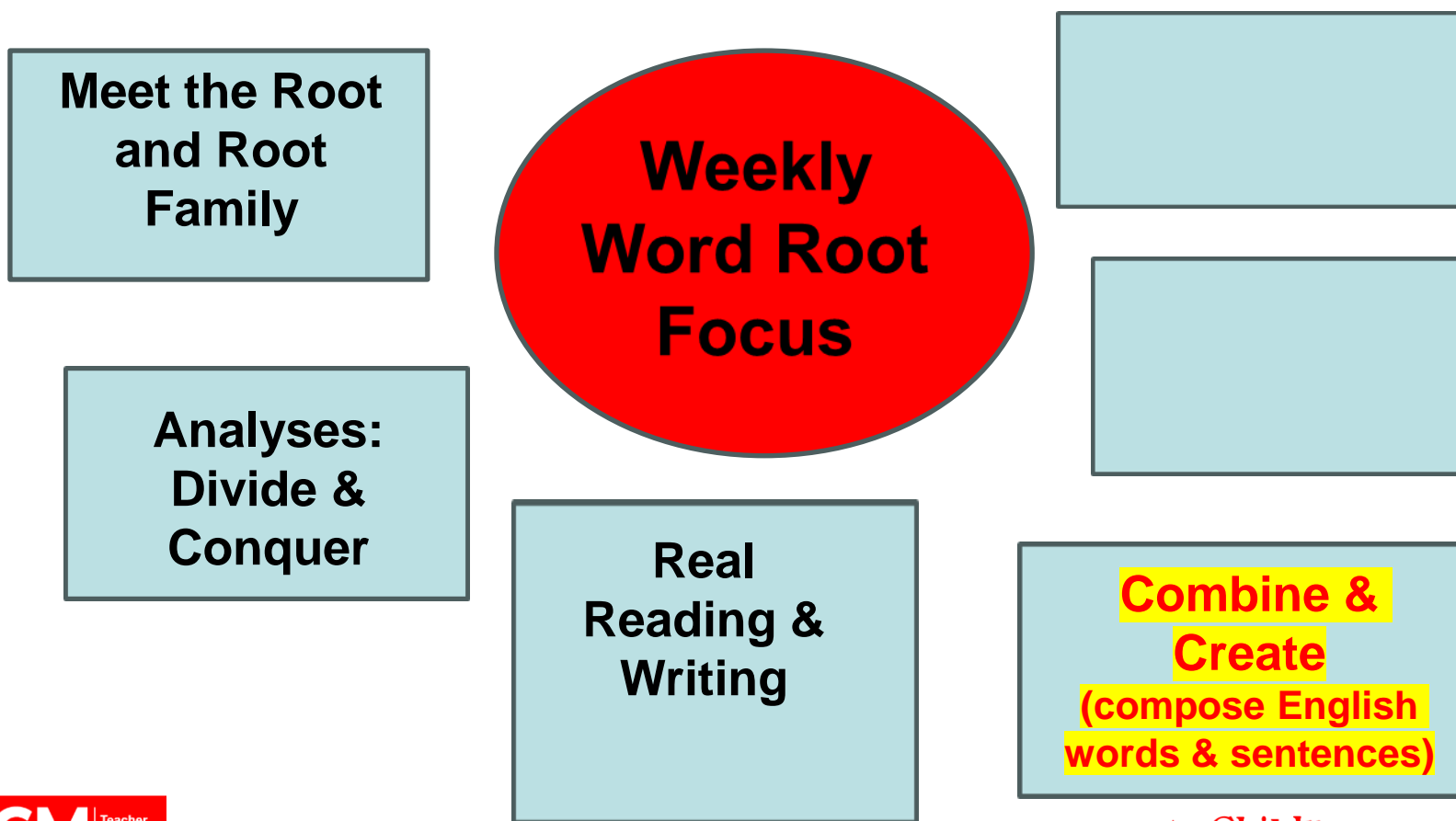
## Ten Minutes Per Day





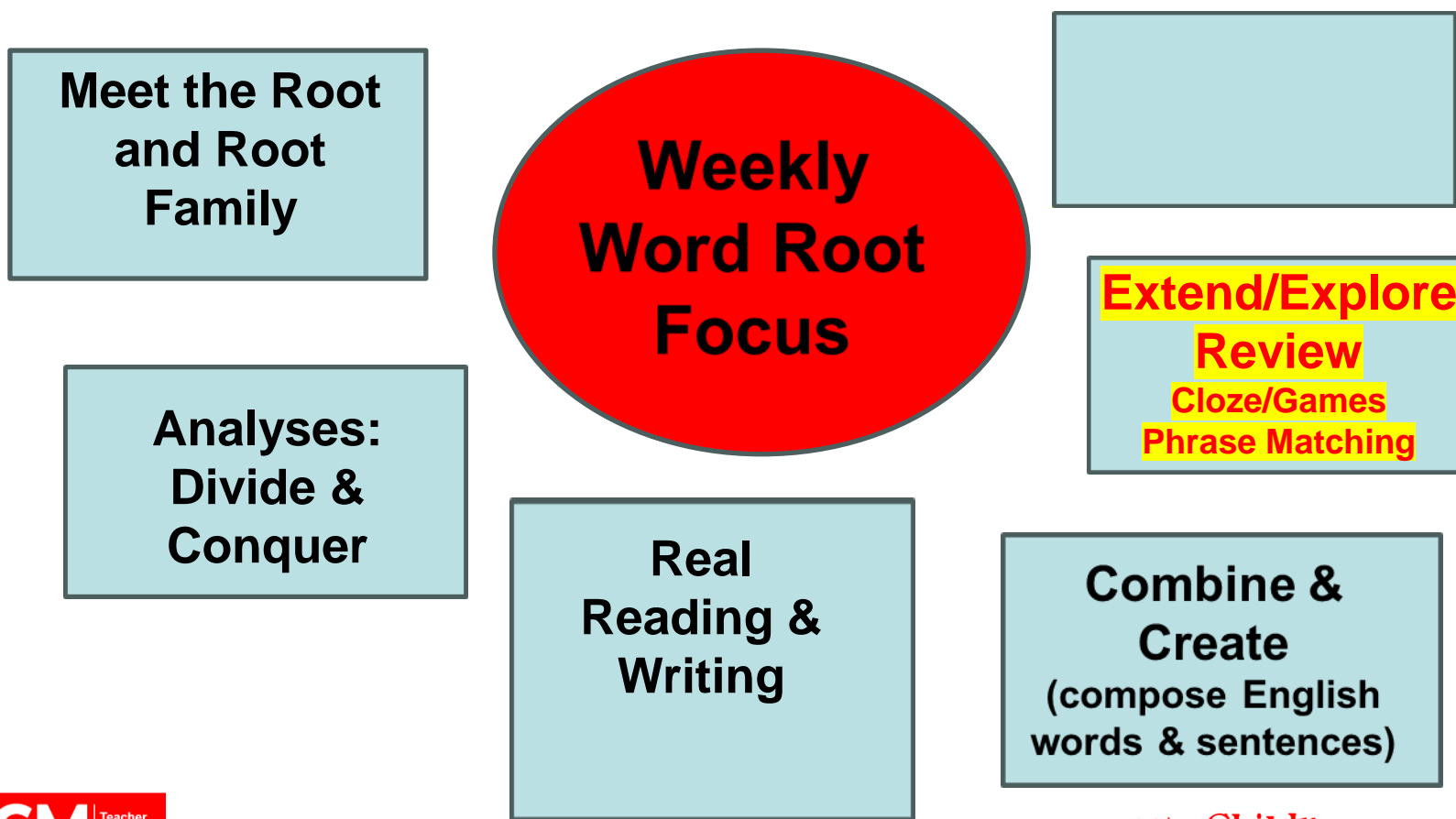
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## Ten Minutes Per Day



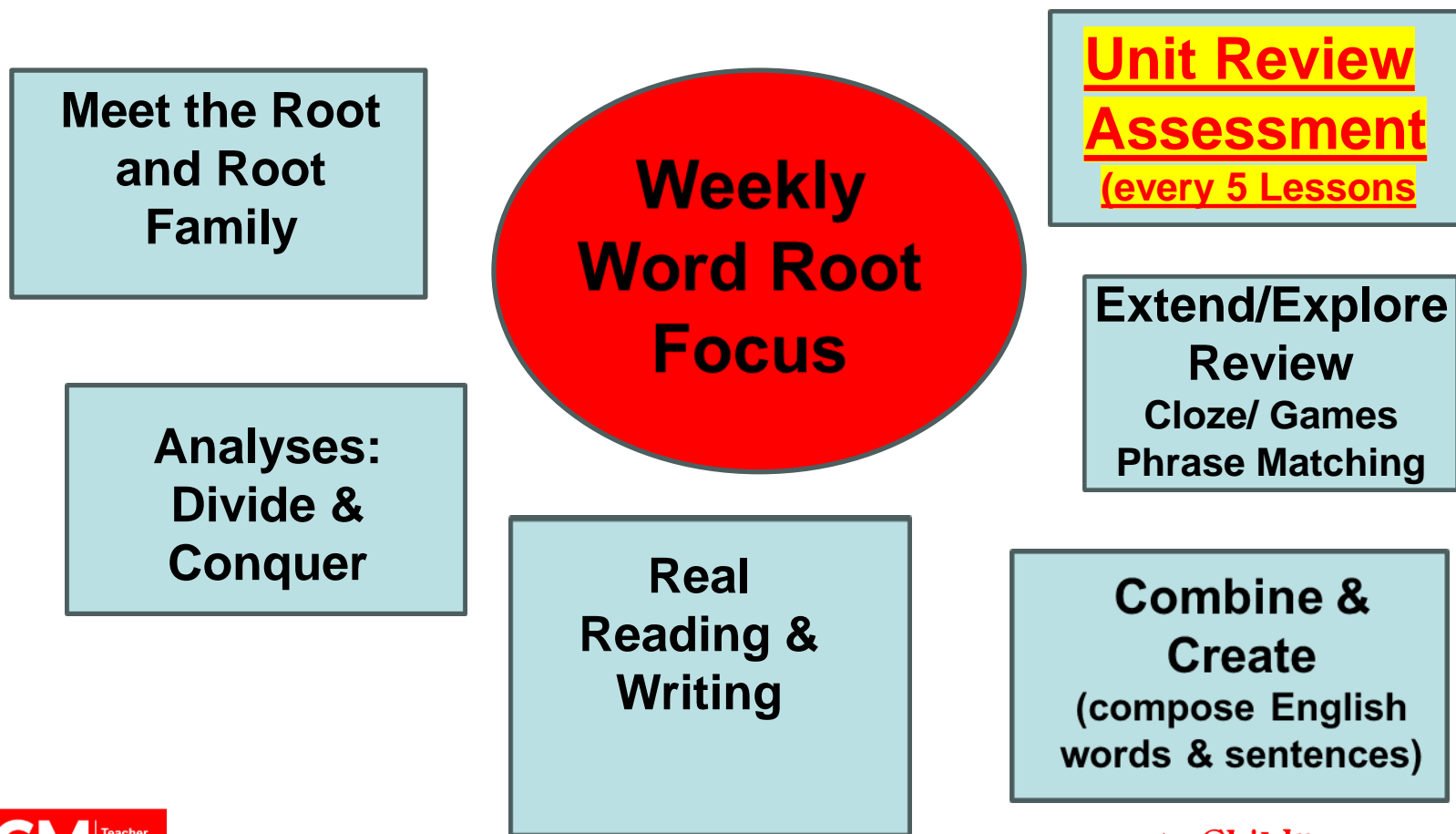
# So How to Make Word Root/Morphology Study Happen?

## Ten Minutes Per Day



# So How to Make Word Root/Morphology Study Happen?

## Ten Minutes Per Day



# So Where to Start

- Choose 1-2 Roots Per Week

# So Where to Start

- Choose 1-2 Roots Per Week (April 22)
- **Earth Day**
  - Geo-
  - Terra-



# Geo...

- **Geometry**
- **Geography, Geographic**
- **Geology**
- **Geothermal**
- **Geodesic**
- **Geocentric**
- **Geocyclic**
- **Geo-economics**
- **Pangea**



# Terr(a) = Earth/Land

- Terrain
- Territory
- Terrace
- Terrarium
- Terrazzo
- Terra Cotta
- Subterranean
- Extraterrestrial
- Mediterranean
- Terrier



# Social Studies Connections





# Terr(a) = Earth/Land

- Terrain
- Territory
- Terrace
- Terrarium
- Terrazzo
- Terra Cotta
- Subterranean
- Extraterrestrial
- Mediterranean
- Terrier
- Terre Haute, Indiana



# Lumbricus Terrestris ?

Scientific name for an earth worm.



# Ask Students to Notice Roots

## GM goes greener, pumping \$6M into electric bus builder Proterra

By Brent Snively  
USA TODAY

DETROIT — General Motors venture capital arm will invest \$6 million in Proterra, a company developing an electric transit bus.

Jon Lauckner, president of GM Ventures, says the financing for Proterra "demonstrates our commitment to the electrification of the automobile."

The money from GM is part of a \$30 million injection of cash led by Silicon Valley venture capital firm Kleiner Perkins Caufield & Byers.

Proterra's Ecotride BE 35 all-electric bus has lithium-ion battery packs that

Granato, president of Proterra, says the company's fast-charge system can recharge the bus in just 15 minutes.

The BE-35, which has a body made of lightweight composites, is averaging up to 24 mpg diesel equivalent in testing, about six times more than a typical diesel bus. Three are being tested by Foothill Transit in West Covina, Calif. Proterra says two other transit systems — StarMetro, the transit system for Tallahassee, and VIA Metropolitan in San Antonio — also have agreed to test preproduction versions of the bus.

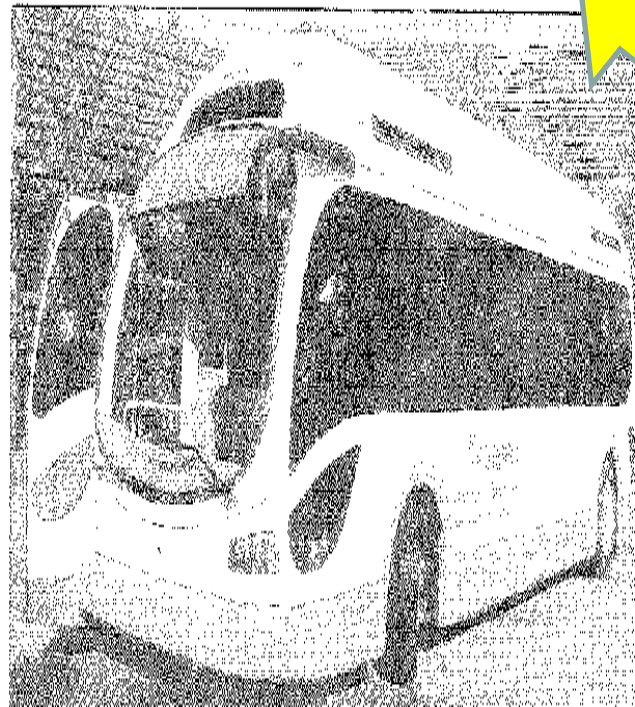
Granato says the cost to purchase, drive and maintain Proterra's buses over their lifespan is comparable to that

million a year ago to give the automaker an edge in new green technologies.

"We are making investments in technology to support GM's core automotive business, and the way we do that is we make equity investments in start-up companies that are developing next-generation automotive-related technology," Lauckner says.

So far, GM has invested \$26 million and has reviewed more than 350 possible investments.

"We have a couple of more that are closing in the very near future, which will boost that figure a fair amount," Lauckner says.



# Noticing







# Labor Day!

- **Labor = Work**
  - Laboratory
  - Laborious
  - Belabor
  - Laborer
  - Collaborate
  - Elaborate



# Fathers' Day

## Pater-/Patr-

- Paternal
- Paternalistic
- Paternity
- Patriarch
- Patrician
- Patron
- Patronize
- Padre



# Fathers' Day

## Pater-/Patr-

- Paternal
- Paternalistic
- Paternity
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- Patron
- Patronize
- Padre



**Patriot** – Lover of the  
Homeland or “Fatherland”



# Thanksgiving

## Grat / Grac = Thanks

- Gratitude
- Grateful
- Grace
- Gracious
- Gratuity
- Gratify
- Ingrate
- Congratulate
- Gracias





# A Latin-Greek Roots Word Wall!

## Ante-

Anterior - near the front

Antebellum - A period before war

Atetype - An earlier form

Antecedent - A preceding occurrence or cause or event

Antecessor - A person who goes before

## Post-

Postmark - A mark made by a stamp after received at the post office

Postpone - to put off to a later date, to not do at the original time

Posthumous - happening after death

Postscript - A note written after a letter is written

Postmeridian - happening after noon



# Vocabulary Word

## ROOTS

### Prefix

Changes meaning of word

### Base

Carries the main meaning

### Suffix

Changes part of speech in a word

## Word Nerd

Prefix/Word

Meaning

**Grade 2**

ice

im-

re-

un-

com-

col-

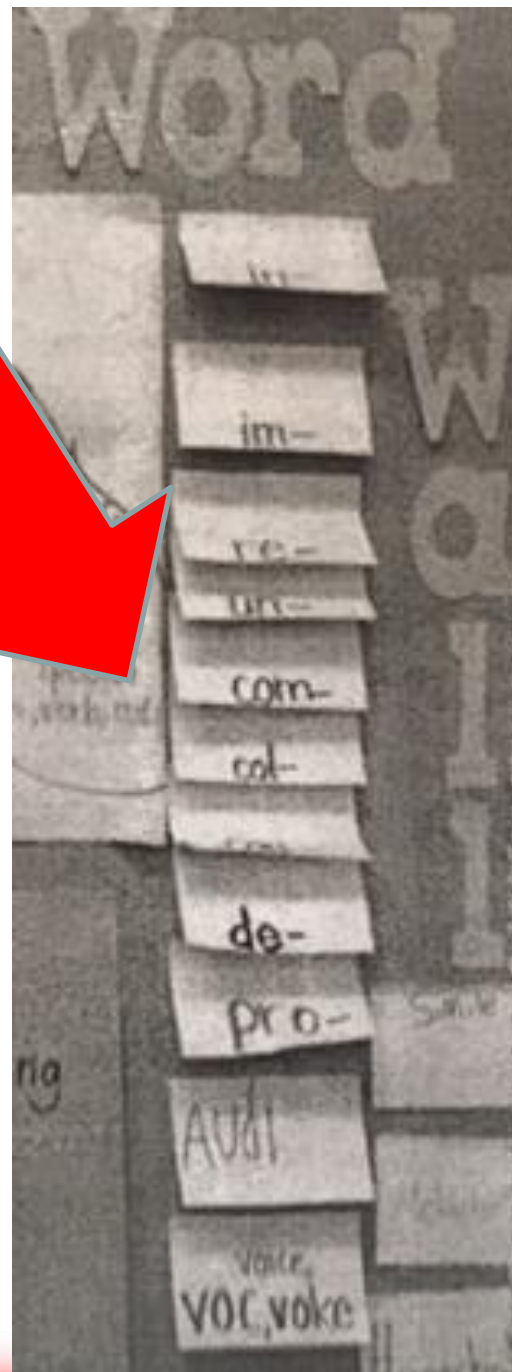
de-

pro-

Audi

Voice  
VOC, voke

Speak, spee



"Sub" - means under  
below

Subway - travel underground

Substitute - work under  
another person's plans

Subtract - pull #'s under

Subsea - <sup>tool used</sup> under the sea

<sup>subterranean</sup>  
~~Subterranean~~ under the  
ground

Substance - underlies

Submit - to send under

# Then What?

# The Instructional Routine: (10 minutes per day)

- **Day 1: Meet the Root** (*Demonstration*)  
Teacher introduces root with discussion & word lists.
- **Day 2: Divide and Conquer** (*Guided Practice*)  
Teacher helps students *dissect* words to unlock meaning.
- **Day 3: Read and Reason** (*Independent reading and writing practice in context*). Students read passages with root words in context.
- **Days 4-5: Extend & Explore**  
Students engage with academic phrases & multiple forms of words in quick & enjoyable activities!



# Tuesday – Divide and Conquer

# Second Graders and Roots!

## Divide and Conquer

Name Marinna Conrad



### Divide and Conquer

P. root	+	Base	Meaning
1. <u>uni</u>		<u>corn</u>	<u>one horn</u>
2. <u>uni</u>		<u>que</u>	<u>one of a kind</u>
3. <u>uni</u>		<u>form</u>	<u>one part of</u> <u>clozi</u>
4. <u>uni</u>		<u>cycle</u>	<u>one wheel</u>
5. _____		_____	_____
6. _____		_____	_____
7. _____		_____	_____

### Odd Word Out

uniform

unitards

unique

Why?

because the rest are closing

# Second Graders and Roots!



Prefix

+

## Divide and Conquer

Base

Meaning

1. trip

cycle

threewheel

2. trip

athlete

three sports

3. trip

plet

three babies

4. trip

pod

three legs

5. trip

colored

three colors


6. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Wednesday

## Read/Write in Context



ROOT OF THE WEEK - bi  
Meaning - two

Directions: Please find at least one word that contains our root of the week. Please write down the entire sentence that you find it in or cut and paste it down below. (If you would like to find more than one word, that would be great.) You can use books, newspapers and magazines.

My friend is bilingual,  
she speaks English and  
Spanish.

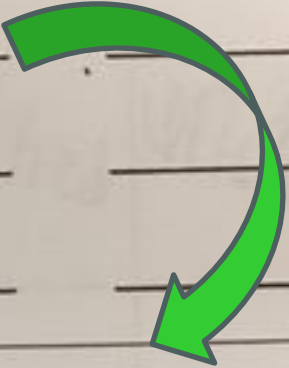
Awesome  
Work,  
Shyla!

# Thursday

## Word Sorts and More

Combine and Create

<u>Word Bank</u>	
<u>unlock</u>	<u>unwrap</u>
<u>untalk</u>	<u>unnew</u>
<u>unsafe</u>	<u>unstop</u>



<u>Makes a Word</u>	<u>Does Not Make a Word</u>
unlock unsafe unwrap	untalk unnew unstop

# Word - Analysis

## Semantic Feature Analysis

Semantic Feature Analysis (SFA) is another way for students to visualize similarities and differences among related words” (pg. 86).









### Charms Semantic Feature Analysis

Evidence-Based Intervention!

**Directions:** Compare charms by marking with a “X” on each feature it contains.

When finished, compare each object. What similarities do you see? What differences?



		Multiple Colors	In the sky	Things that move	Things that can be put on	Things that are large	Things that can be touched
	Shooting Star						
	Rainbow						
	Blue Moon						
	Pot of Gold						
	Green Hat						
	Pink Heart						
	Purple Horseshoe						
	Red Bullhorn						



# Word - Play

## Word Theater

Similar to the game of Charades, it's purpose is to "help students build or reinforce conceptual knowledge by acting out meaning of new vocabulary" (pg. 91).

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

**360° Words**  
Move It! Make It! Mean It!

Meaning

Connections

Sentence

Draw a Picture

Word

**Mark It!**

Make a mark when you hear, read, or use the word.

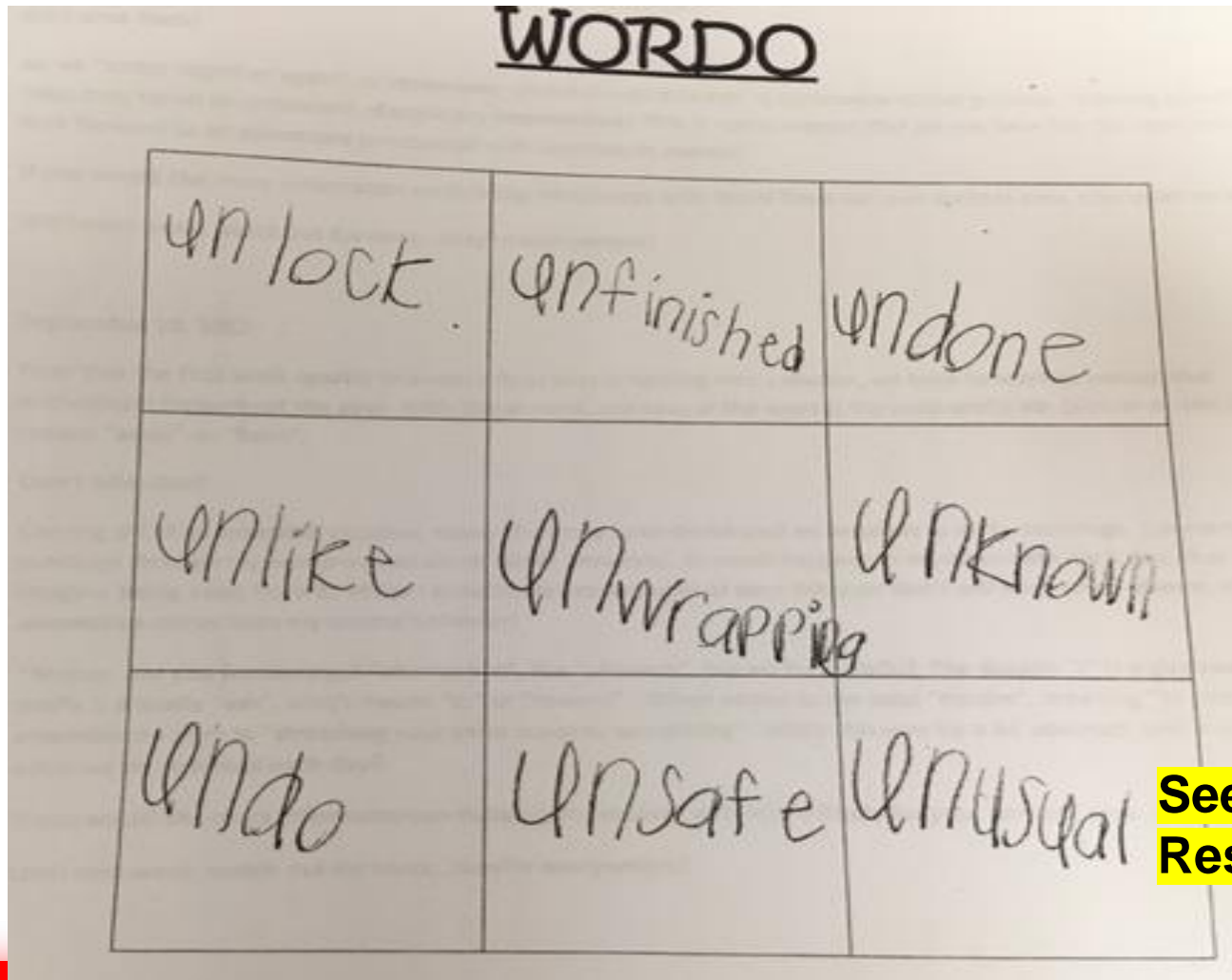
ELEVATION





# Friday – Go for the Gold!

## Word Games or Assessment



W	O	R	D

See [timrasinski.com](http://timrasinski.com)  
Resources

**But Wait!**  
**There's more you can do with**  
**word roots.**

# Students can Create their own Words

- **Be the Bard!**



# Artfully Teaching the Science of Reading



Chase Young, David Paige,  
and Timothy V. Rasinski



# Students can Create their own Words

- **Be the Bard!**



# Intaxication

**Euphoria at getting a tax refund, which lasts until you realize it was your money to start with!**

**The Washington Post**

# Cashtration

- The act of buying or building a house, which renders the subject financially impotent for an indefinite period of time.

*The Washington Post*



# Inoculatte

- To take coffee intravenously when you are running late!

**The Washington Post**

# Students can “Be the Bard” Create their own Words

- **Autophile**
  - Car keys
  - Mirror
  - Wallet full of money

# Students can Create their own Words

- **Autophile**
  - Auto = self
  - Phil/phile = love

Anglophile  
Francophile  
Philosopher  
Philanthropist



# Students can Create their own Words

- **Matermand**

# Students can Create their own Words

- **Mater**mand
  - **Mater/Matr = mother**
    - Maternal, matriarch, matron

# Students can Create their own Words

- **Matermand**

- **Mater/Matr = mother**

- Maternal, matriarch, matron

- **Mand = order**

- Command, demand, reprimand  
mandate, mandatory

# Students can Create their own Words

## ▶ **Matermand**

- ▶ Mater = mother
- ▶ Mand = order

**A mother's order**





# You Be the Bard

## Combine and Create: Invent a Word!

Ante- (before)	Aqua	-er/or
Anti- (against)	Aud (Hear)	-ery
Inter-	Bene (Good)	-ful
Uni-	Cent (100)	-ness
Bi-	Dem (People)	-ology
Tri-	Dent (Teeth)	-ologist
Re-	Mater	
Pan- (all)	Pater	
Pre-	Phil(e) (Love)	
Circum-	Polis (City)	
Semi- (half)	Psuedo	
	Terr(a) (Earth/Land)	



# Fun Facts--Did You Know?

**Dec = 10**

**Decade, Decathlon, Decimal, Decagon,**

# Fun Facts--Did You Know?

**Dec = 10**

Decade, Decathlon, Decimal, Decagon,

??? December ???

# Did You Know?

## Dec = 10

Decade, Decathlon, Decimal,  
Decagon, December

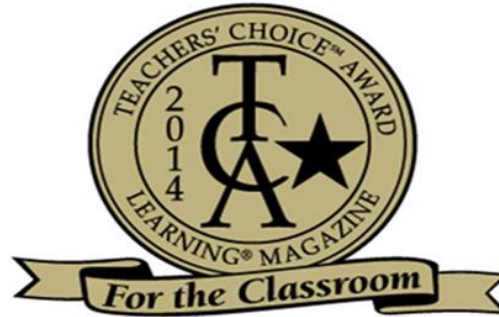
### Decimation

Today, the words **decimate/decimation** mean to destroy or hurt something gravely. However, the original meaning of **decimate** shows us that ten was an essential word root. **Decimate** and **ten** harken back to a brutal practice of the army of ancient Rome. A unit that was guilty of a severe crime (such as mutiny) was punished by selecting and executing one of every ten of its soldiers, thereby frightening the remaining soldiers into obedience.



Clip Art Roman Legion , Free

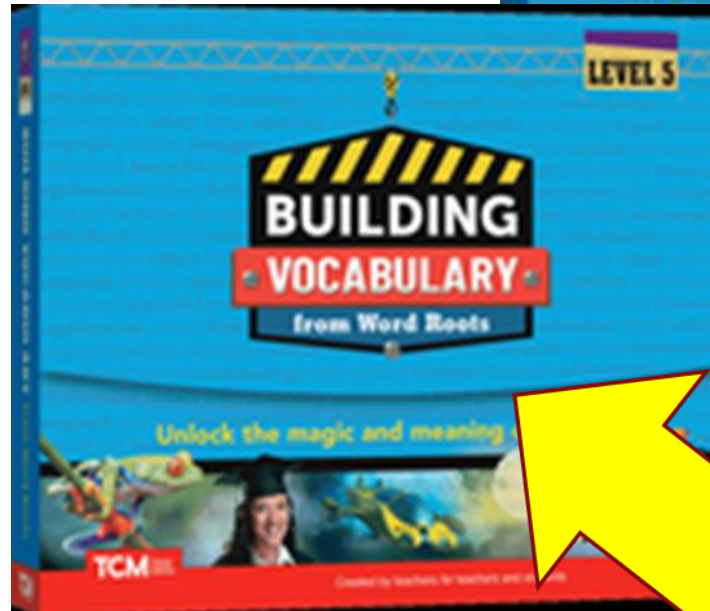
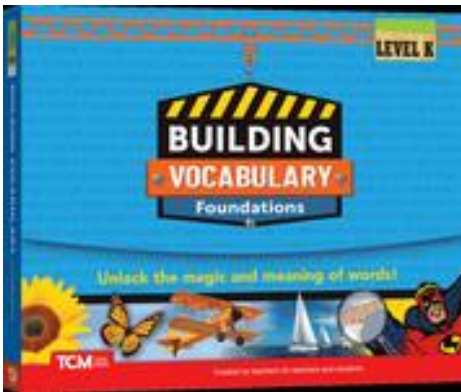
# ***Building Vocabulary (2<sup>nd</sup> ed)***



**Word Families/Rimes  
K-2**



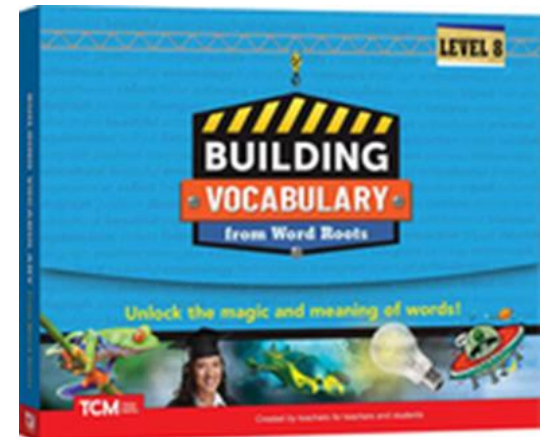
# ***Building Vocabulary (2<sup>nd</sup> ed)***



**Word Roots  
Grades 3+**



This year our school purchased the Building Vocabulary Toolkit. I have been so encouraged by this resource and the intentionality behind the program. Previously, I was putting together my own morphology units of study and was truly overwhelmed never knowing exactly which roots to choose. We love the systematic approach to the toolkits, and I feel much more confident in my delivery now that we have the toolkits at each grade level. Sue/Ellie Lee, English Language Arts. Nashville TN 2022





**Here's an example of an actual lesson (Gr 5, Unit 3):**

**DUC/DUCT = To Lead**

Conductor

Induce

Reduce

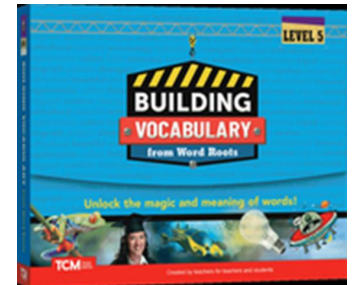
Deduction

Introduction

Aqueduct

Tear duct

Abduction



***Teacher's Guide***

The following information describes the key features of the *Teacher's Guide*.

**Build Teacher Knowledge and Build Student Knowledge** provide concise, essential, and necessary information about the roots taught in the lesson. This should be read prior to teaching, as many instructional choices may need to be made based on the information provided.

**Differentiation Strategies** provides options for additional support for specific student populations.



**Cognate Connections** are lists of Spanish cognates that share the root that is the focus of the lesson. This supports bilingual students in making connections to their home language.

**Spelling Matters** provides notes about root-related spelling issues, including how students can use roots knowledge to improve their spelling abilities.

**Definitions at a Glance** provides a list of the lesson's words and definitions. Complete lists are available on the Digital Resources.

[illegible][illegible]

## Definitions at a Glance

**abduct:** to "kidnap"; to seize or "lead" away from a home or other premises (*ab-* = away, from) (nouns: **abduction**, **abductor**)

**aqueduct:** a structure or system that "leads" water from the source to its place of use (*aquale-* = water)

**conductor:** one who guides and "leads" musicians together as they perform; also, a substance that channels or "leads" a current or electrical force (*con-* = with, together)

**deduce:** to figure out or conclude (*de-* = down, off); literally, to "lead" a conclusion "down" from a general premise (adjective: **deductive**, noun: **deduction**)

**deduct:** to subtract from the total (*de-* = down, off); literally, to take or "lead" a number "off," down from the sum (noun: **deduction**)

**duchess:** the female "leader" of a European county or duchy; also, the wife of a duke

**duct:** a tube for "leading" air from a furnace to a vent or from a vent back to the furnace (see Did You Know? on **Meet the Root Slide 45** for "duct tape"); a small tube that drains tears (tear duct)

**duke:** the male "leader" in a European county or duchy

**educate:** to instruct, teach, or train (*e-* = out); literally, to raise or "lead" "out" of childhood by teaching (noun: **educator**)

**education:** the act or process of teaching and instructing; literally, the raising or "leading" "out" of childhood

**induct:** to "lead" into a society or special group; to draft or "lead" into the army (*in-* = in, on, into) (nouns: **induction**, **inductee**)

**introduce:** to "lead" or bring someone inside a group; also, to "lead" or bring something inside a standing body for the first time (as in "to *introduce* an idea") (*intro-* = inside)

**introduction:** the opening portion of a book designed to "lead" the reader inside the main text; also, the opening section of a musical performance designed to "lead" listeners inside the entire work; also, the meeting of someone who is "led" inside a group for the first time (*intro-* = inside) (adjective: **introductory**)

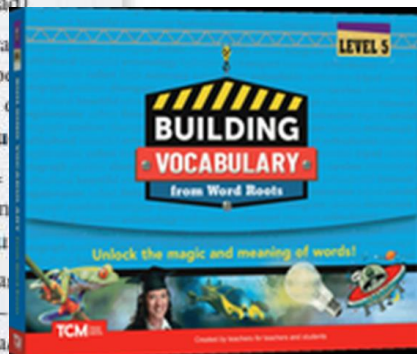
**produce:** to generate and "lead" forth into existence; to create or give birth to; to "lead" forth a play or program for an audience; as a noun (accented on first syllable), fruits and vegetables that are "led" forth from the earth (*pro-* = forth, forward, ahead) (adjective: **productive**, noun: **productivity**)

**product:** anything made, created, or "led" forth into being; anything produced; in math, the result of multiplying two or more numbers (*pro-* = forth, forward, ahead)

**production:** the act or process of creating and "leading" something forth into being; also, a play or presentation for screen or stage that is "led" forth (noun: **production**)

**reduce:** to make less or smaller (*re-* = again); literally, to "lead" "back" to an earlier and smaller size, scale, or amount

**reproduce:** to make copies; to procreate; to have offspring (*re-* = back, again; *pro-* = forth, forward, ahead); literally, to "lead" "forth" into being "again" by copying or by giving birth (noun: **reproduction**)





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# 31 words derived from the duc word root

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**education:** the act or process of teaching and instructing; literally, the raising or "leading" "out" of childhood

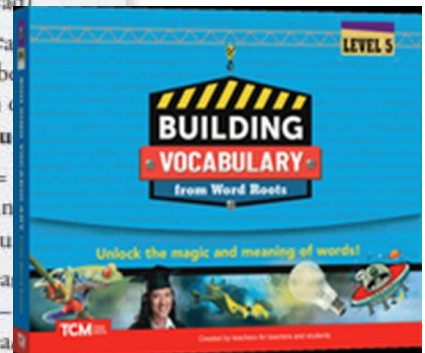
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**reproduce:** to make copies; to procreate or have offspring (*re-* = back, again; *pro-* = forth, forward, ahead); literally, to "lead" "forth" into being "again" by copying or by giving birth (noun: **reproduction**)



# UNIT 3

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



## Meet the Root

**Directions:** Turn to your partner. Talk about the meaning of “lead” in each of the words. Fill in the blank spokes with two other *duc, duct* words that have the meaning of “lead.”

conduct

education

produce

*duc, duct* = “lead”

introduction



**BUILDING  
VOCABULARY**  
From Word Roots

Unlock the magic and meaning of words!

TCM

Created by teachers for teachers and students

**TCM**

Teacher  
Created  
Materials

To **Create** a World in which **Children** Love to Learn!



# Divide and Conquer

**Directions:** Draw a slash after the prefix in each word. Write the meaning of the prefix in the first blank. (**Hint:** Use the Prefix Bank. An *X* means that this word has no prefix.) In the second blank, write the meaning of the base. Then, pick the best definition from the Definition Bank. Write the letter in the box.

## Prefix Bank

*ab-* = away, from

*de-* = down, off

*e-* = out

*re-* = back, again

Word	Prefix means	Base means	
1. reduce	_____	_____	<input type="text"/>
2. abduction	_____	_____	<input type="text"/>
3. educator	_____	_____	<input type="text"/>
4. duct	X	_____	<input type="text"/>
5. deduction	_____	_____	<input type="text"/>

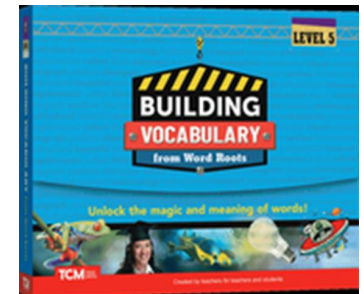
## Make It Yours!

- Choose two words, and use both of them in the same sentence.
- What are some words or phrases similar in meaning to *reduce*?
- How are the words *educator* and *educate* different in meaning?
- Use the word *abduct* in a sentence. Share your sentence with a friend.

## Definition Bank



- to make smaller or lead back to an earlier size or number
- a teacher who leads students as they grow out of childhood
- a tube or pipe that leads air to or from a furnace
- an amount subtracted or led down from the final sum
- the act of kidnapping or leading a person away from the premises





## Read and Reason

**Directions:** Read this passage, paying close attention to the *italicized* words. Then, answer the questions.

When we figure something out, we say that we *deduce* it. We bring or “lead” an idea “down” to our level, where it makes sense and is easy to understand. The process of *deduction* involves using logic or reason to reach a conclusion. *Deductive* reasoning involves three steps. Here is an example:

- A. All human beings breathe. (the beginning idea or *premise*)
- B. I am a human being. (the proof or *evidence*)
- C. Therefore, I breathe. (the conclusion or *deduction*)

Let's put your *deductive* reasoning to work!

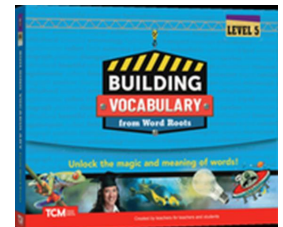


1. Write your deduction on the final line.

- A. premise: All dogs are mammals.
- B. evidence: Rover is a dog.
- C. deduction: \_\_\_\_\_

2. Create your own deduction, and share it with a friend.

- A. premise: \_\_\_\_\_
- B. evidence: \_\_\_\_\_
- C. deduction: \_\_\_\_\_







## Combine and Create

**Directions:** Words can change meaning, depending on how they are used. Here are five words. You will use the same words twice.

conductor

introduction

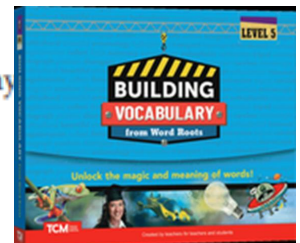
reduce

deduction

produced



1. I need to \_\_\_\_\_ this photograph to make it fit my screen.
2. The chicken \_\_\_\_\_ four eggs.
3. After reading the \_\_\_\_\_, I am excited to read the whole book.
4. The \_\_\_\_\_ made a spectacle of himself by wildly waving his baton.
5. The manager at my job decided to \_\_\_\_\_ my hours.
6. Copper is an excellent \_\_\_\_\_ of electricity.
7. Check your receipt. Did the cashier take off the \_\_\_\_\_ for the coupon?
8. Brilliant \_\_\_\_\_! How did you arrive at such a conclusion?
9. He \_\_\_\_\_ the school play with such success that he won a trophy.
10. Let me give you a proper \_\_\_\_\_ before you deliver your speech.



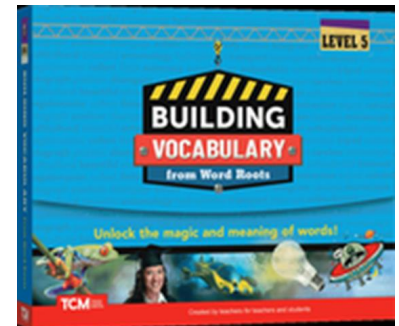


## Extend and Explore

**Directions:** Draw a line to match the phrase with the context.

Phrase
1. a productive use of time
2. educational television
3. the produce section
4. deductive logic
5. inducted into the Hall of Fame
6. a reproduction, not an original
7. she deducted it from the bill
8. outstanding conduct
9. introductory remarks
10. it induced a headache

Context
A. The athlete was recognized for her lifetime achievements.
B. I got so much accomplished in just one hour!
C. Before I begin, let me thank the following people.
D. Your behavior was amazing! I'm so proud of you!
E. All that pounding construction noise made my head throb!
F. This is just a copy, not the real thing.
G. The cashier took off the value of the coupon.
H. Where can I find lettuce, tomatoes, and carrots?
I. I learn so much on this channel!
J. I concluded from her sunburn that she did not use sunscreen at the pool.



## Base *duc, duct*

Which *duc, duct* word or phrase fits each description?

abduct
induct
introduce
hot air duct
conductor

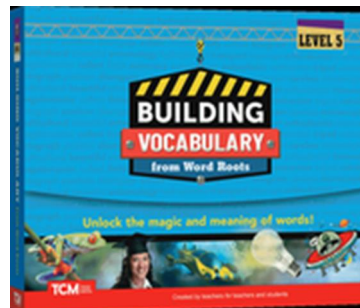
a pipe that “leads” heat from a furnace

to “lead” someone inside a group

to “lead” someone away from home by force

to admit or “lead” someone into the Hall of Fame

one who “leads” a group of musicians “together”



## Base *duc, duct*

Match the *duc, duct* words with the correct description. (**Hint:** Look at the bold prefixes.)

**produce**

**reduction**

**deduct**

subtract by “leading” a number down or off of another number

“lead” back to a smaller amount

fruits and vegetables which the earth “leads” forward

# Extensions

# Did You Know?



*Duck tape* or *Duct tape*? Duct tape is a wonderful product! It is very strong and lasts for a long time. Some artists even make sculptures from it! Duct tape was invented to help people install furnaces in buildings. Long tubes made of light-weight metal called *ducts* were used to “lead” the air from the furnace to the rooms. These *ducts* came in sections that had to be joined together. Metal screws would not work because they would make holes in the *ducts* and allow air to leak. So, super-sticky *duct tape* did the job by holding the pieces together without piercing the metal. *Duct tape* was always grey because it matched the color of the metal *ducts*.

But a lot of people seem to have forgotten that this was the original purpose. They began calling it *duck tape*. Nowadays, you can find “duck tape” in many colors for art projects. Some like yellow because it matches ducks!





# Duct Tape Capital of the World

Field Review by  
the Team at  
[RoadsideAmerica.com](http://RoadsideAmerica.com)

**Avon, Ohio**

Duct tape is king in this Cleveland suburb.

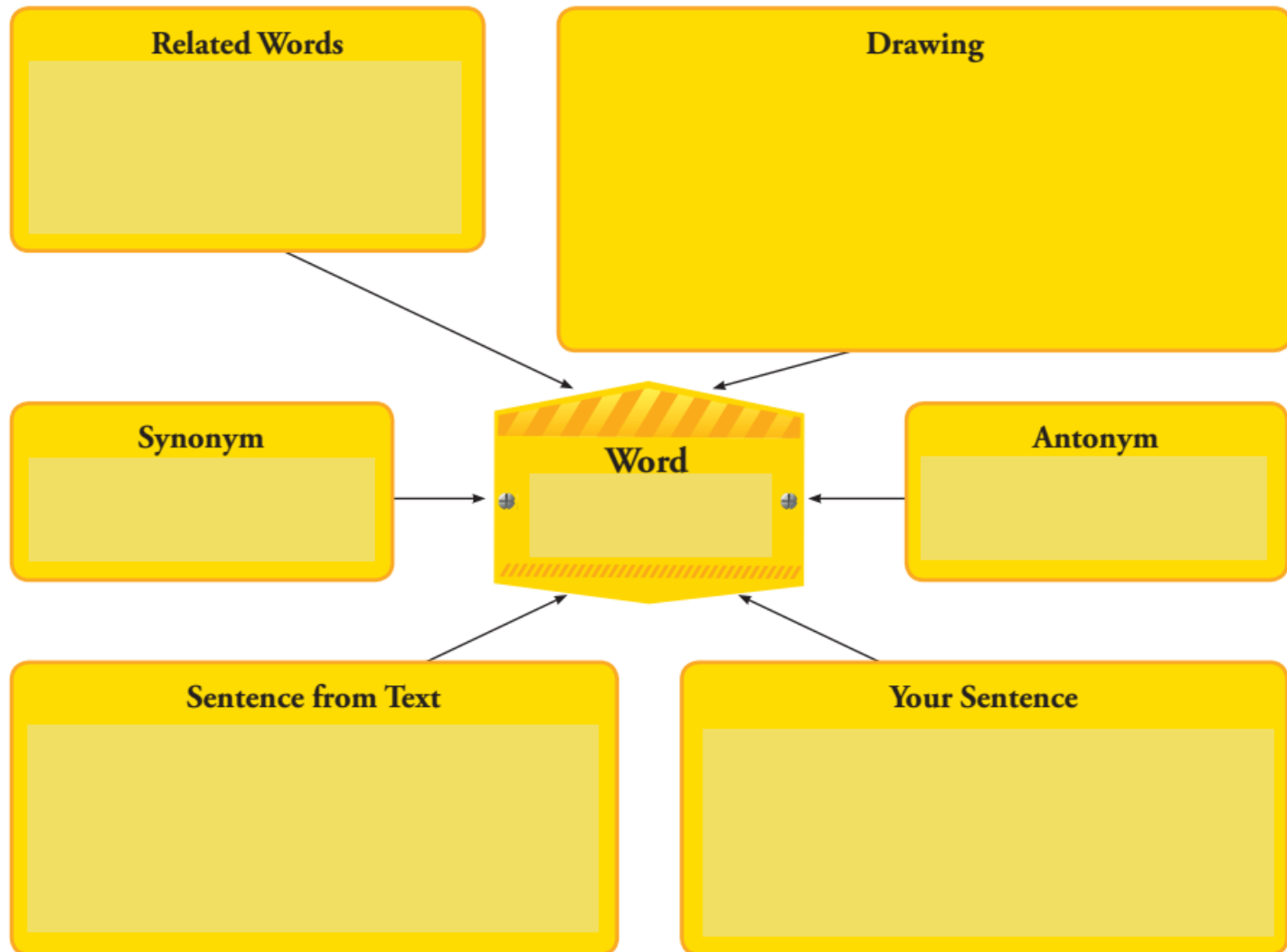
Since 2004, a group of volunteers in town have organized and run the Avon Heritage Duck Tape Festival every Father's Day



*Elephant made of duct tape.*

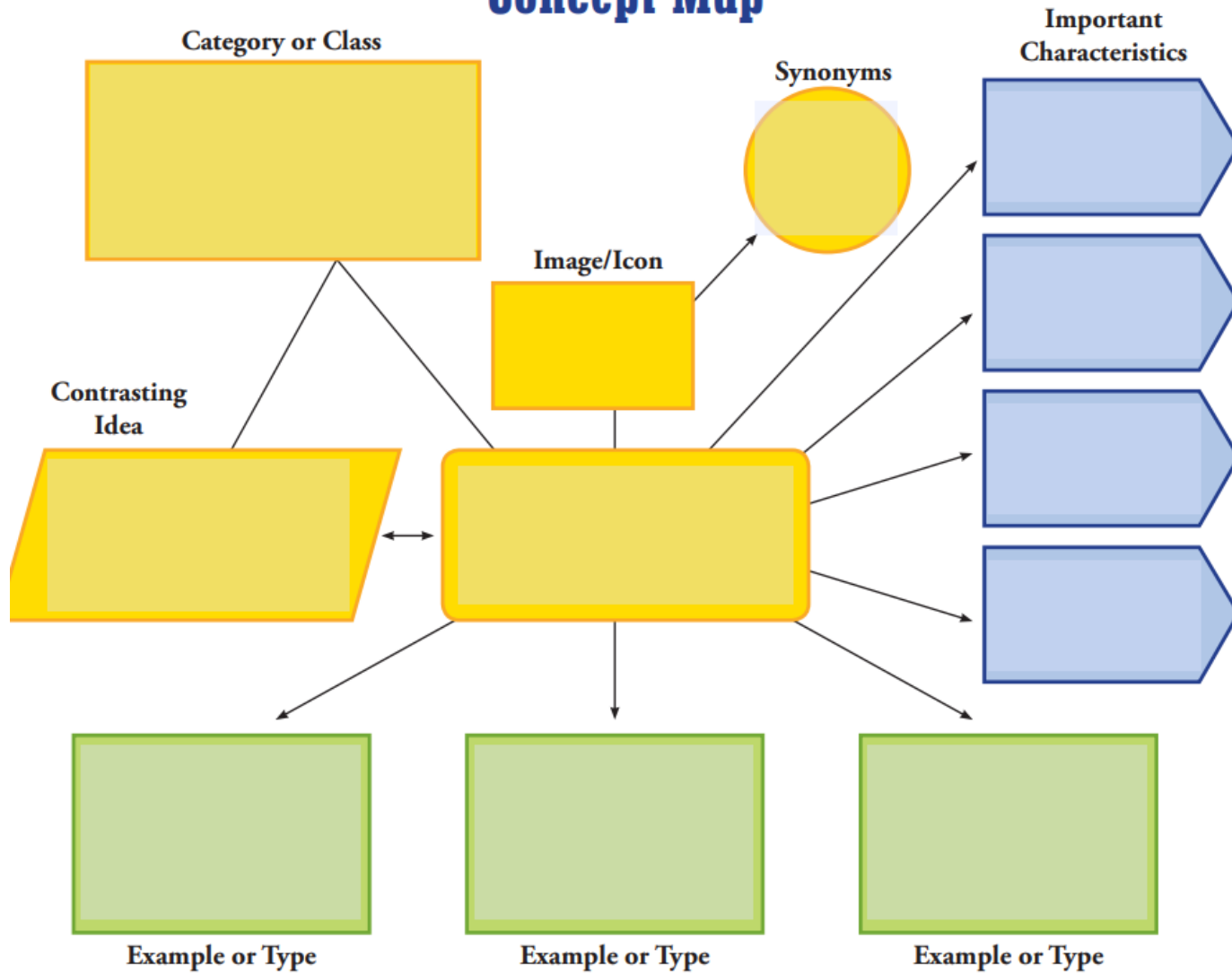
# Digital Resources

## Concept Map

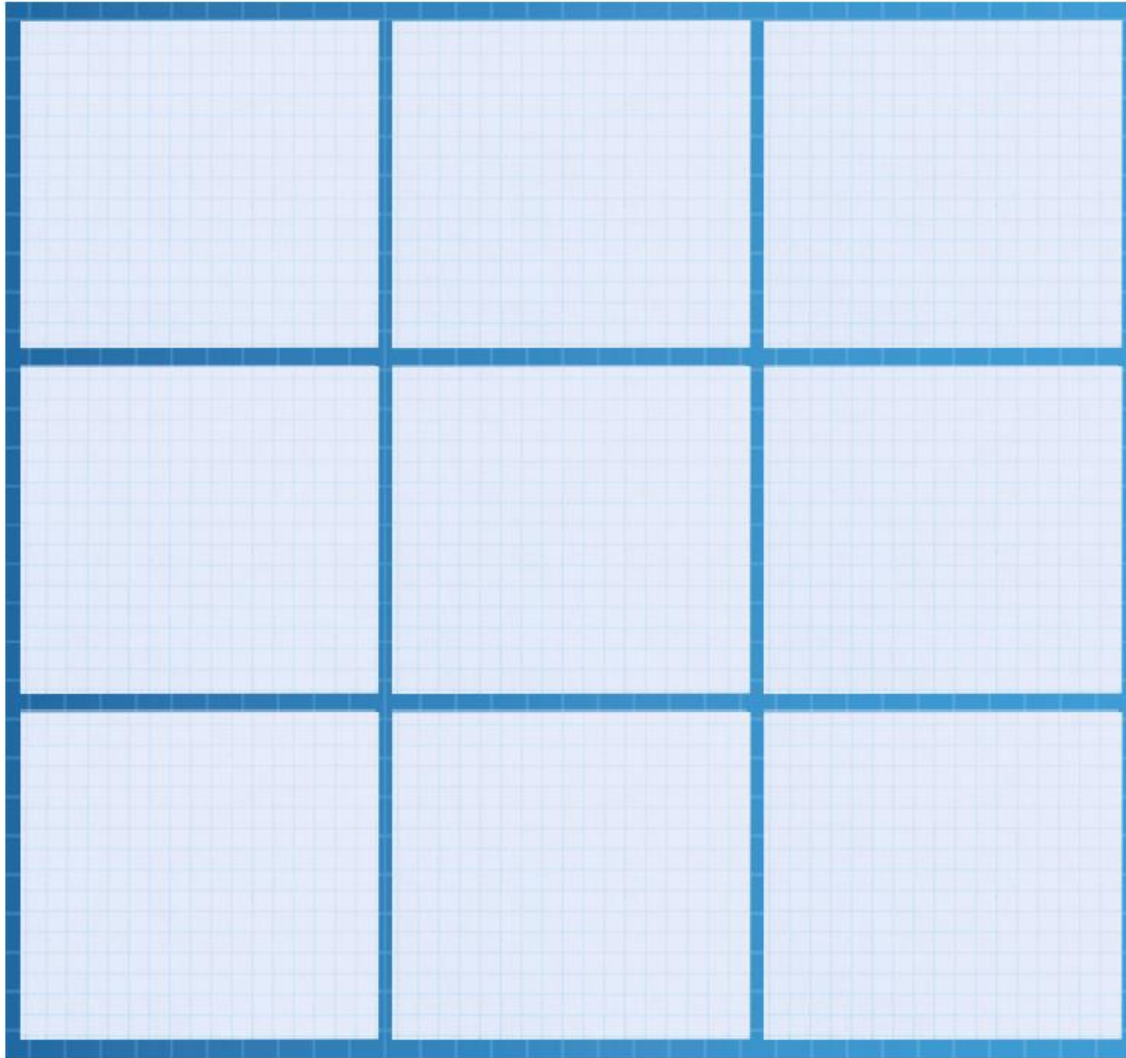




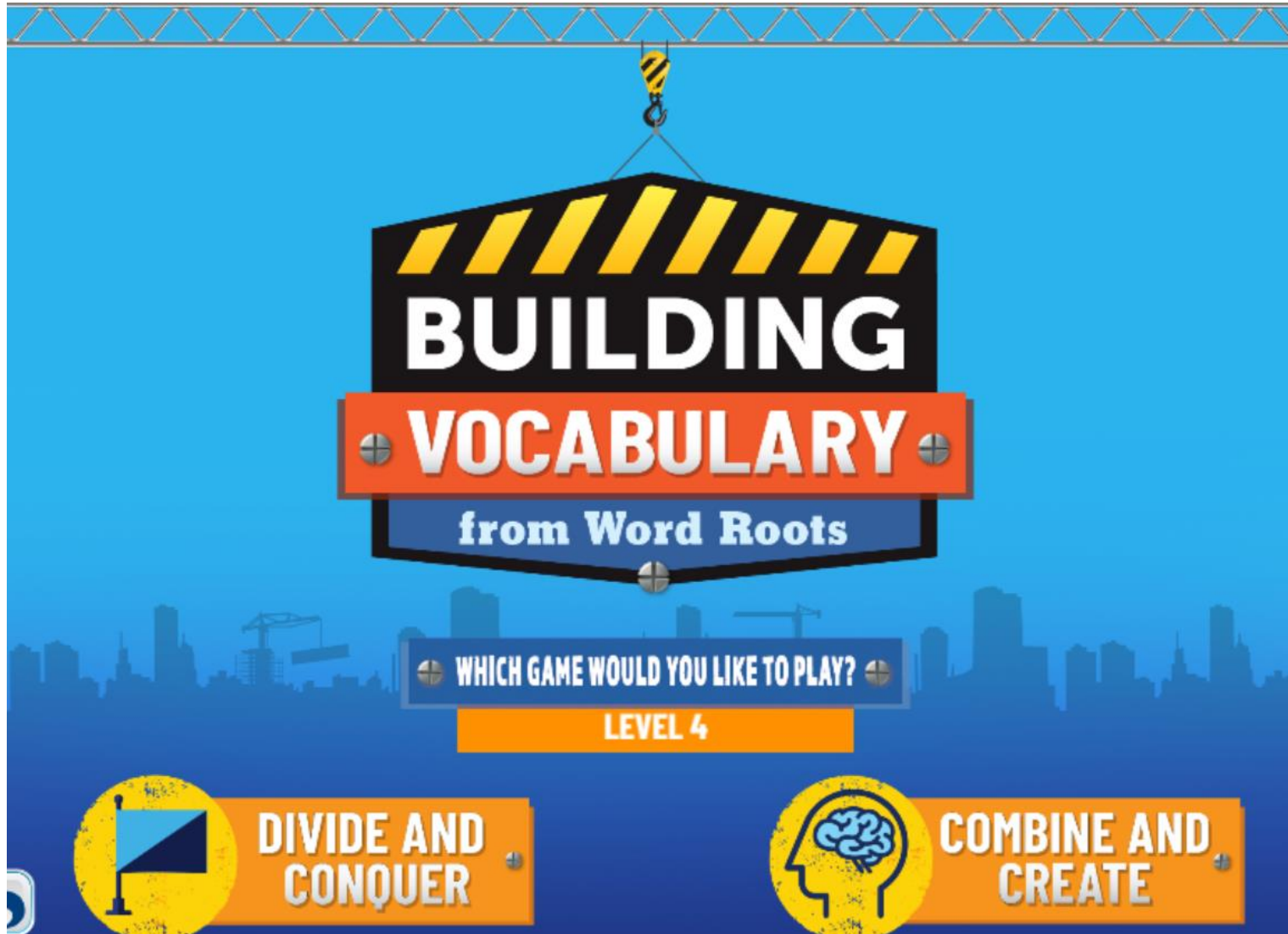
# Concept Map



# WORDO



# Online Games



# Be the Bard duc/duct

- Circumduction
- Autoduct
- Preproduce
- Exducation

# Be the Bard duc/duct

- Circumduction
- Autoduct
- Preproduce
- Exducation >>>>> Education

# DUC/DUCT = To Lead

**Educate, Education, Educator**

**To lead students out of darkness  
to the light of knowledge**



knowledge

**7.**

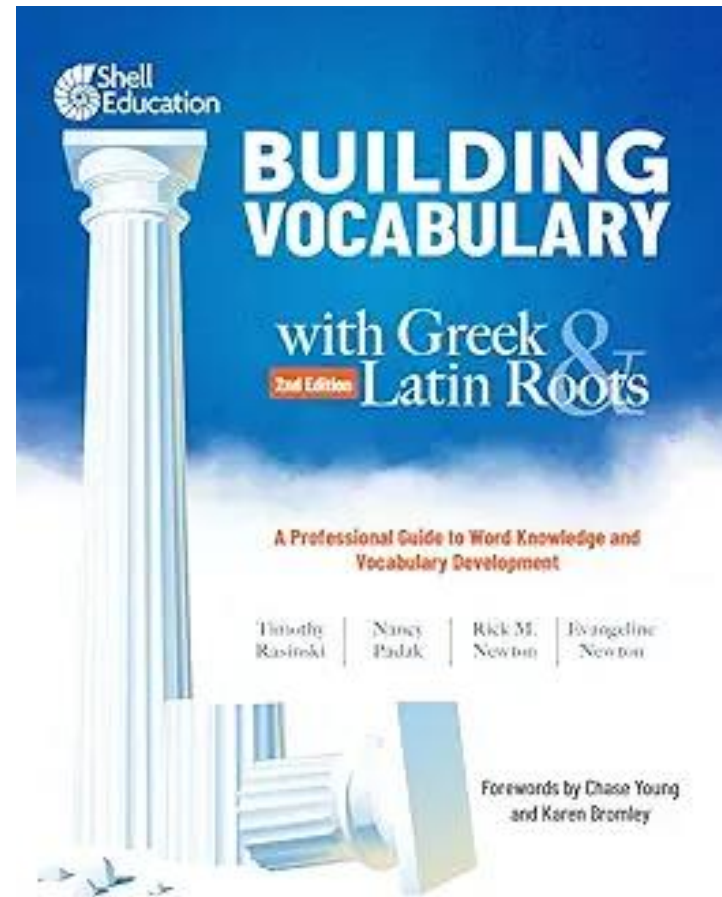
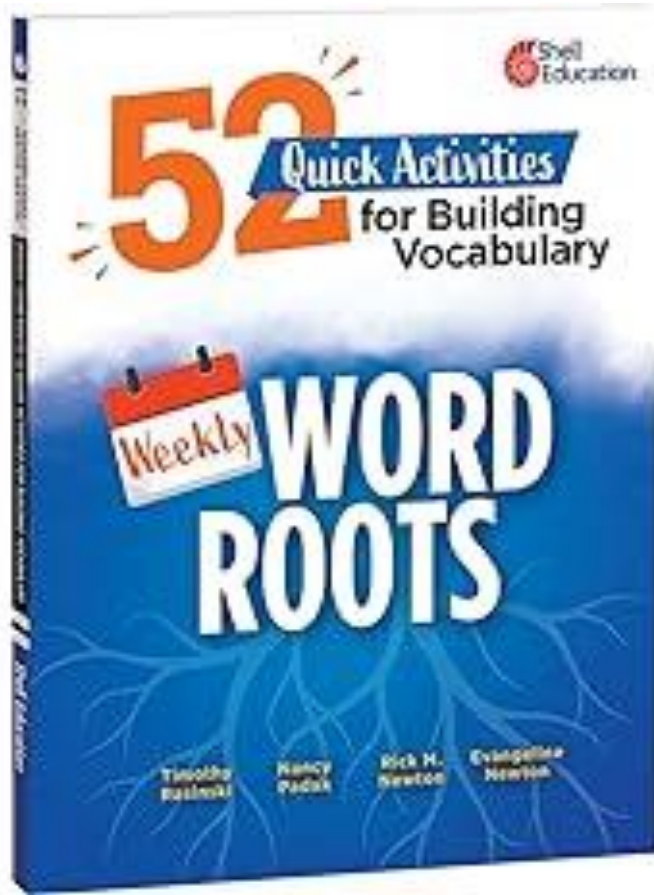
# **Latin- Greek Word Roots**

## **Next Steps**

**Continue the Word Root  
Journey**



# Professional Learning



## EDUCATION WEEK

Published Online: April 12, 2016

Published in Print: April 13, 2016, as **Can Latin Build Young Vocabularies?**

### **Can Latin Help Younger Students Build Vocabulary?**

By **Liana Heitin**

*Fairfax, Va.*

With students gone for the day, 6th grade teachers Joy Ford and Ryan Rusk sat in a classroom discussing the Latin root *temp*.

After determining that "contemporary" and "temporary" share the root, which refers to time, the two Woodlawn Elementary teachers then turned to the word "temptation."

"I'm tempted to eat this chocolate," said Ford. "That doesn't have to do with time."

"But if I'm tempted, I want it now," responded Rusk. "So could it?"

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# YES!

Ryan Rusk sat in a classroom

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# THE LATIN-GREEK CONNECTION

## Building Vocabulary Through Morphological Study

Timothy V. Rasinski ■ Nancy Padak ■ Joanna Newton ■ Evangeline Newton

*Using Latin and Greek word roots to teach multiple words is a more efficient approach than the traditional vocabulary instruction of teaching words as single entities.*

[www.timrasinski.com](http://www.timrasinski.com)

Human Development [NICHD], 2000). Studies and reviews of research over the past three decades have shown that the size and depth of elementary students' vocabulary is associated with proficiency in reading comprehension and that instruction to increase readers' vocabulary results in higher levels of reading comprehension (e.g., Baumann et al., 2002; Beck, Perfetti, & McKeown, 1982; Kame'enui, Carnine, & Freschi, 1982; Stahl & Fairbanks, 1986).

Yet despite the promise of vocabulary instruction to improve elementary students' reading, consensus

attempts to address this situation by making the case for a very productive, efficient, and engaging approach to vocabulary and the study of words.

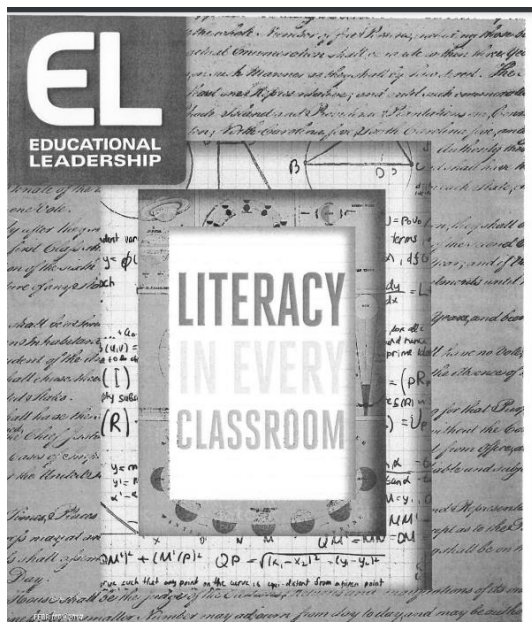
### Focus on Meaningful Word Patterns

For young children, the development of morphological awareness is an integral component of word learning. Biemiller and Slonim (2001) determined that children acquire about 600 root word meanings per year from infancy to the end of elementary school. In a comprehensive review of 16 studies analyzing the effect of instruction in morphological awareness on

est that teach-  
approaches to  
base and  
this article



[www.timrasinski.com](http://www.timrasinski.com)



# THE ROOTS OF COMPREHENSION

Studying Latin and Greek word origins  
makes vocabulary instruction resonate.

Timothy Rasinski, Nancy Budwig, and Joanna Newton

**R**esearch going back seven decades demonstrates that vocabulary knowledge is strongly associated with proficiency in reading comprehension. Large vocabularies lead to better reading performance (Baumann et al., 2002; Davis, 1944). Amazingly, more than 80 percent of students'

4th, 8th, and 12th grade students' vocabulary development shows that at all three grade levels, U.S. students have demonstrated no improvement at all in their vocabulary knowledge since 2009 (National Center for Education Statistics, 2015).

According to vocabulary scholar Margaret McKeown, very little vocab-

as painful and meaningless weekly word lists and quizzes. Students may memorize words, spellings, and definitions, but these are quickly forgotten. The result of either approach—benign neglect or rote memorization—is stagnation in our students' vocabulary knowledge.

# Timothy Rasinski

Products

Blog

Resources

## Professional Development

- Study Guide for Building Vocabulary with Greek and Latin Roots, (2nd Edition)-Tim Rasinski, Nancy Padak, Rick M. Newton, Evangeline Newton
- Tim Rasinski's Handouts for Professional Development: From Phonics to Fluency to Proficient Reading
- Building Vocabulary Professional Development Video
- Tools to Teach Academic Vocabulary Webinar

## Research

- Building Vocabulary Pilot Research Report
- The Latin-Greek Connection Building Vocabulary through Morphological Study
- Building Vocabulary White Paper
- Building Vocabulary Frequently Asked Questions

## Articles

- A Little Latin and a Whole Lot of English
- Building Vocabulary in Summer School
- The Art and Science of Teaching Reading
- Fast Start - The Effects of Fast Start Reading
- Fast Start - Getting Parents and Children Off to a Strong Start in Reading
- Fast Start - A 3-Year Study of a School-Based Parental Involvement Program in Early Literacy



**8.**

**Does it Work?**

**Science of Reading**

**From the Trenches**





By –  
**Liana Heitin,**  
Education  
Week

# Can Latin help younger students build vocabulary?

# Can Latin help younger students build vocabulary?

In just one year, Woodlawn School saw increases in its standardized test scores for reading, particularly at the grade in which most teachers were using Latin and Greek roots.



# Can Latin help younger students build vocabulary?

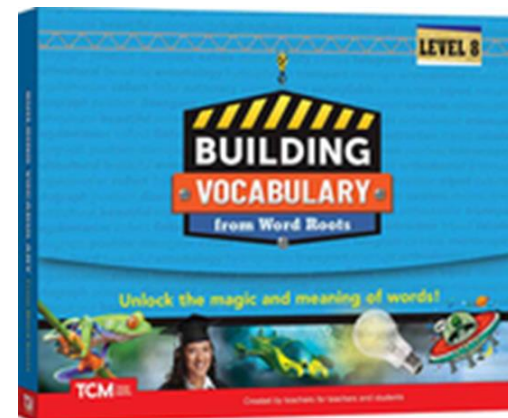
In just one year, Woodlawn School saw increases in its standardized test scores for reading, particularly at the grade in which most teachers were using Latin and Greek roots.

(The percentage of 4<sup>th</sup> graders passing went up by 28% and for 5<sup>th</sup> grade it rose 19%)



# **Alan Becker –** **ELA Supervisor, North Carolina**

*Introducing systematic Word Roots instruction resulted in the three classes of ELA that I was teaching a day producing the **highest reading comprehension growth in the county** according to the results of our statewide end-of-grade test.*



**I attribute our success with the new standards (which mirror the Common Core) to our preparation with Greek and Latin word parts! Each grade level on the State test had questions regarding word parts (roots and affixes). Every school in our district met the reading Annual Measurable Objectives (VERY hard to do).**

**Dr. Nancy Guth**  
**Supervisor of Literacy and Humanities**  
**Stafford County Public Schools**  
**Stafford, VA**

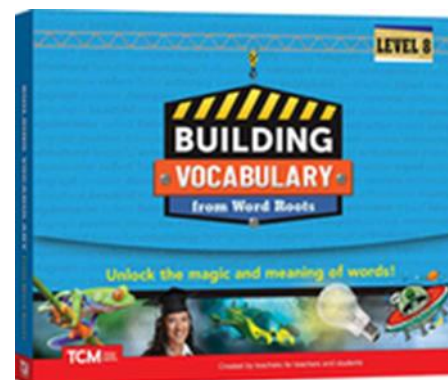


**Stafford County Public Schools**

Inspire. Empower. Excel.

I love how Building Vocabulary gives engaging practice using affixes and Greek and Latin roots. Morphological analysis is the only vocabulary strategy that the students can transfer independently yet it is difficult to find materials that are colorful, engaging, and rich instructionally. We are using **Building Vocabulary to sharpen students' ability to use morphological analysis to construct meaning of unknown words, which we know will build their reading comprehension.** This is especially great for grades 3-5! Thank you for the creative, variety of activities to engage all students! Love it!

Virginia Taylor  
Reading Coach  
Hillsborough County, FL



# Finally...

- **Follow me on X (twitter)**
  - **@Timrasinski1**
- **Or email me at [trasinsk@kent.edu](mailto:trasinsk@kent.edu)**

To receive weekly Word Root  
**resources/teasers** to share with your own  
colleagues



# Morphology Monday



**Tim Rasinski**

627 Tweets



**Tim Rasinski** @TimRasinski1 · Apr 22

1 of 3 Apr 22. Happy Earth Day!

Here's a quick Word Roots Vocab Lesson for Earth Day

Pls RETWEET for others parents & teachers to use. Thanks.

To Print: Click on Image then Copy & Paste to a word doc.

@ILA @NCTE @DyslexiaIDA @EdWeekTeacher @weareteachers  
@SavetheChildren

## Earth Day on the Mediterranean Sea

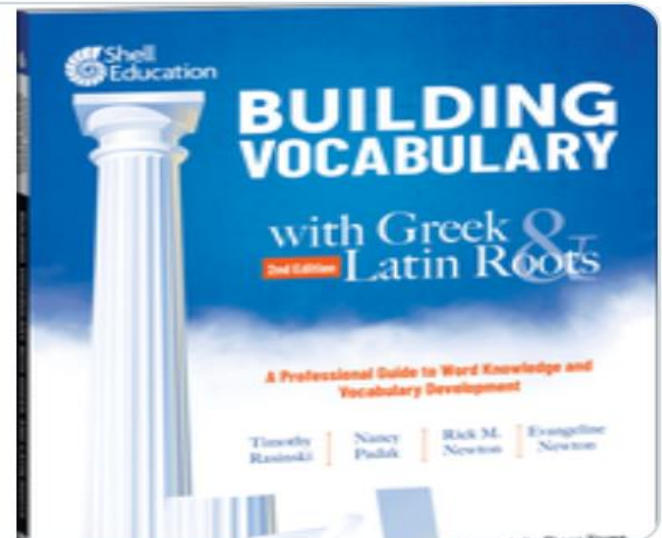
### A Word Roots Lesson for Earth Day – Terr(a)

On April 22<sup>nd</sup>, the whole world comes together to celebrate the planet Earth. You may already know that many familiar “earth” words come to us from the Latin base *terr*, which means “land, ground, earth.” But did you know that *terr* often occurs in words that name geographical places? Here’s how the *Mediterranean Sea* got its name.

The ancient Romans lived in Italy, which is in the middle of the *Mediterranean Sea*. The Romans set out to conquer all the lands that touched this huge body of water: France, Spain, Libya, Egypt, Arabia, Greece, and the Middle East. The Romans called the world they conquered the “Circle of Lands” (*orbis terrarum*), and they called this sea “Our Sea” (*Mare Nostrum*). We call it the *Mediterranean Sea* because it lies in the **middle (Medi-)** of all those **lands (terr)** once conquered by the ancient Romans.



See if you can figure out the “earth” connection in these words: *territory*, *terrace*, *terrain*, *terrarium*, *extraterrestrial*, *subterranean*, *terrier*. If you need help, look them up in an online dictionary.



Cameron Carter and 9 others

## Earth Day on the Mediterranean Sea

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# Why Geologists Love Earth Day

## Another Word Roots Lesson for Earth Day – Geo

Do you like rocks? Many people find rocks fascinating. If you are one of those people you might want to become a geologist. A geologist is a scientist who works in geology - the study of the physical history of the earth, the rocks of which it is composed, and the physical, chemical, and biological changes that the earth has undergone or is undergoing. The word geology comes from two Greek word roots – **geo**, meaning **earth** or land, and **-ology** which means the study of. So, geology means the branch of science that studies the earth and its features. Geologists study volcanoes and earthquakes; they also study the various materials that make up the earth, such as oil and minerals. The study of geology can be quite fascinating.

Knowing that the word root **pan** means **all**, why do you think that the word **Pangea** refers to the supercontinent that included almost all the landmasses on Earth in early geological times?



See if you can figure out the “earth” connection in these words: **geography**, **geometry**, **geode**, **geothermal**, **geocentric**, and **geodesic** dome and sphere. Can you match each image above with one of these “geo” words? If you need help, look them up in an online dictionary.



## NATIONAL TORTILLA CHIP DAY – February 24



**tort = twist**

A Word Root Lesson focused on *tort = twist*

National **Tortilla** Chip Day celebrates the crunchy, curvy, and **twisty** snack loved by millions across the nation, is observed annually on February 24th. Tortilla chips are most commonly served with salsa, chili con queso, guacamole, or cheese dips. Tortilla chips are made from corn tortillas cut into wedges and then fried. Tortillas, themselves, are thin, flat, round cakes of unleavened commeal baked on a griddle. The name **tortilla** comes from the Latin which means "twisted bread."

Even though tortilla chips have always been considered to be a Mexican food, they were first produced in Los Angeles in the late 1940s. It is said that the triangle-shaped **tortilla** chips were made popular by Rebecca Webb Carranza as a way to use the misshapen **tortillas** that were rejected from the automated tortilla machine that she and her husband used at their Los Angeles deli and **tortilla** factory. Carranza realized that once the discarded **tortillas** were cut into triangle shapes and fried they twisted themselves into becoming a popular snack. She sold them for a dime a bag. Carranza received the Golden **Tortilla** Award in 1994 for her contribution to the Mexican food industry.

Source: <https://nationaldaycalendar.com/national-tortilla-chip-day-february-24/>

Match the **tort** word below with the appropriate image (How does each word include the idea of twist?)

**Contortionist**



**Torture**



**Distortion**



More **tort** words to explore:

Extortion      Retort  
Tortellini      Torsion

Learn more about a Word Roots approach at  
[www.timrasinski.com](http://www.timrasinski.com) > Products. Contact  
us at [trasinski@kent.edu](mailto:trasinski@kent.edu)



World in which Children Love to Learn!

# March 15 - World **Contact** Day



**tact/tang = touch**



## A Word Root Lesson on **tact/tang = touch**

Every year on March 15th, people around the globe unite on World **Contact** Day to attempt make **contact** or get in **touch** with extra-terrestrial (ET) life. Nearly half of all human beings believe that intelligent alien civilization exists. Those who believe other life forms exist think we should try to make **contact** with them. If you are one who doesn't believe in aliens, here are some facts to consider:

- The U.S. government takes UFOs seriously.
- Scientists think that certain planets may be habitable.
- Many people claim to have personal **contact** with aliens and have been able to draw pictures describing their experiences.
- Many people have reported UFO sightings and have taken pictures to prove it.
- There are a lot of things that happen in the sky that are simply unexplainable.  
If aliens really do exist, why haven't we made contact with them?

What do you think about aliens and life beyond the earth?

(Source: <https://nationaldaycalendar.com/world-contact-day-march-15/> )

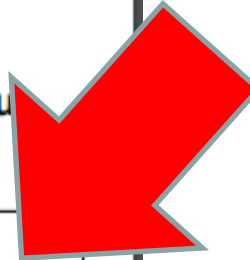
The Latin s **tact, tang** means **touch**. It is found in many English words. Can you think of any? \_\_\_\_\_



**tact/tang = touch**

Match the descriptive phrase below with the **tact/tang** word on the right. Be sure to "**touch** bases" with a friend or teacher about your choices.

1. \_\_\_\_\_ Affecting the sense of "touch" such as sand paper.
2. \_\_\_\_\_ Capable of being transmitted, especially by "touch."
3. \_\_\_\_\_ Not perceptible by the senses, especially the sense of "touch."
4. \_\_\_\_\_ "Touching at a single point."
5. \_\_\_\_\_ An item that is not broken; "untouched."
6. \_\_\_\_\_ Being sensitive to the feeling of others, especially on "touchy" issues

- 
- a. **tangent**
  - b. **tactile**
  - c. **intact**
  - d. **contagious**
  - e. **tactful**
  - f. **intangible**

Choose the Correct Word:

My brother is so touchy, that any \_\_\_\_\_ (**tangential**, **tactless**, **contingent**) comment by someone is certain to hurt his feelings.

What does it mean when someone is described as touchy?

Learn more about a Word Roots approach at [www.timrasinski.com](http://www.timrasinski.com) > Products. Contact us at [trasinsk@kent.edu](mailto:trasinsk@kent.edu)



# November 11! Veterans Day!

## A Day to Thank Those Who Have Served



### A Word Roots Lesson (**serv**) honoring all who have **served** in the Armed Forces

One of the key meanings of the Latin roots **serv/servat** to "**keep or save**." Men and women who have **served** in the military **services** of the United States pledge to do their duty to keep their country **safe**.

Veterans Day honors military veterans who **served** in the United States Armed Forces. The holiday coincides with Armistice Day and Remembrance Day which marks the end of World War I. These **observances** reflect the end of significant hostilities at the 11th hour on the 11th day of the 11th month of 1918 when the Armistice with Germany went into effect, ending the First World War. Veterans Day is not to be confused with Memorial Day. Veterans Day celebrates all United States, military **service** veterans. Memorial Day is set aside for remembering the men and women who died while **serving**.

Complete each definition with a word from the Word Bank.

1. \_\_\_\_\_ Land that is "saved" or "kept back" for special purposes.
2. \_\_\_\_\_ To "keep" watch over something.
3. \_\_\_\_\_ The "saving" or protection of natural resources for future generations.

#### Word Bank

- a. **observe**
- b. **reservation**
- c. **conservation**

Want to learn more about a Word Roots approach to Questions? Contact us at [trasinski@kent.edu](mailto:trasinski@kent.edu)

Or visit [www.timrasinski.com](http://www.timrasinski.com) > Products



**Word Challenge:** Hotels and restaurants often take **reservations**. Can you define a hotel or restaurant **reservation**? Be sure to use the word "**keep or save**" in your response.





## Thanksgiving – A Day of Gratitude

### Celebrating the Word Roots Grat-/Grac- = Thank



Thanksgiving Day is observed each year in the United States on the fourth Thursday in November. In 1621, the Plymouth colonists and Wampanoag Indians shared an autumn harvest feast of **gratitude** that is acknowledged today as one of the first Thanksgivings in the colonies. For more than two centuries, days of thanksgiving were celebrated by individual colonies and states. It wasn't until 1863, amid the Civil War, that President Abraham Lincoln proclaimed a national Thanksgiving Day to be held each November.

The word **gratitude** is based on the Latin root **grat/grac**, which means “**thank**.” To feel **gratitude** is to feel **thankful** or to show appreciation for a kindness.

Match the **grac-/grat-** phrase in the box on the right with the descriptions below.

1. \_\_\_\_\_ To “give **thanks**” before a meal
2. \_\_\_\_\_ To tip a food at a restaurant as a “**thank you**”.
3. \_\_\_\_\_ To be “**thankful**” for your blessings.
4. \_\_\_\_\_ To show no “**thanks**” or appreciation for a favor.

- A. Feel **grateful**
- B. Display of **ingratitude**
- C. Say **grace**
- D. Leave a **gratuity**

Check out these other **grac-/grat-** words. What do each have to do with **thanks** or **pleasing**.

-Ingrate      -Gracious  
-Gratify      -Gracias



Learn more about a Word Roots approach at [www.timrasinski.com](http://www.timrasinski.com) > Products. Contact us at [trasinsk@kent.edu](mailto:trasinsk@kent.edu)



**Laura Hancock, Ph.D.** @LauraAHancock · Feb 13

🌟 Absolutely love Building Vocabulary with Greek and Latin Roots! Theory, practice & extension activities. Odd Word out is a fav & much fun with students & adults.



**Tim Rasinski** @TimRasinski1 · Feb 13

Morphology Monday!

In anticipation of Presidents Day (2,20) in the US, this week's Word Roots are "SID, SED, SESS = SIT"

"Joe Biden is the SITTING preSIDent"

@ILAToday @ascd @DyslexiaIDA @reading\_league @IMSEOG



### Presidents Day



A Word Root Lesson focused on **sid, sed, sess = sit**

On the third Monday in February, the United States celebrates the national holiday known as Presidents Day. The day takes place during the birth months of the country's two most prominent presidents, George Washington and Abraham Lincoln. The story of Presidents' Day began in 1800. Following the death of George Washington in 1799, his February 22 birthday became a perennial day of remembrance. At the time, Washington was venerated as the most important figure in American history.

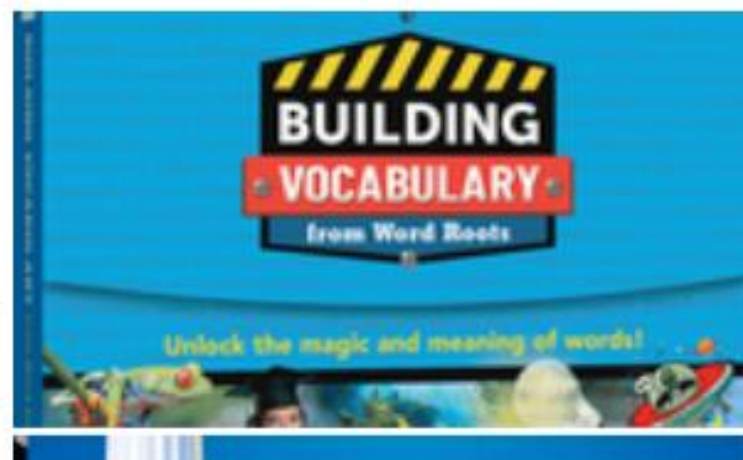
The word root **sid** is embedded in the word president. The roots **sid, sed, and sess** mean to "sit." Knowing that the word root **pre** means before, you can see how a president "sits before" or in front of the nation to provide leadership **and is often referred to as the sitting president.**

Match the phrase on the left with the appropriate sid/sed/sess word on the right.

1. A person who "sits" in his or her home.
2. Matter that has been deposited and "sits" or settles through some natural process.
3. Tending to spend much time seated and inactive.

- a. sedentary
- b. sediment
- c. resident

Did You Know...



# VENI, VIDI, VICI



**VENI, VIDI, VICI**



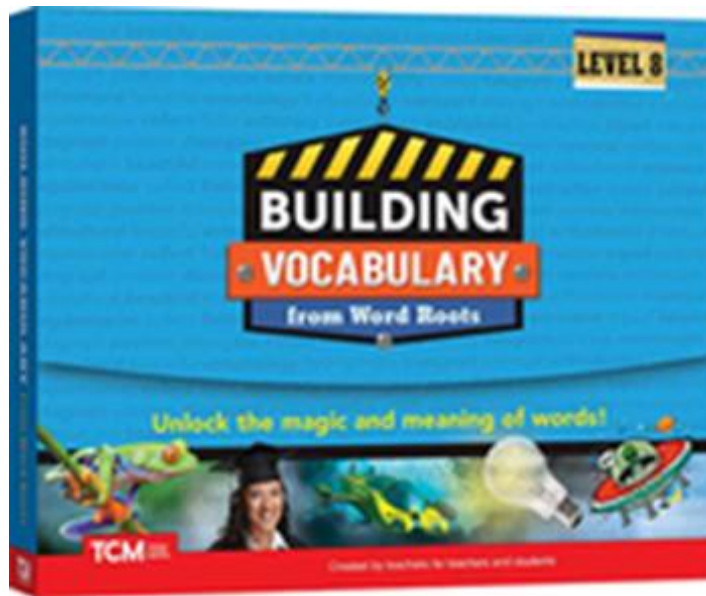
**I CAME, I SAW, I CONQUERED**





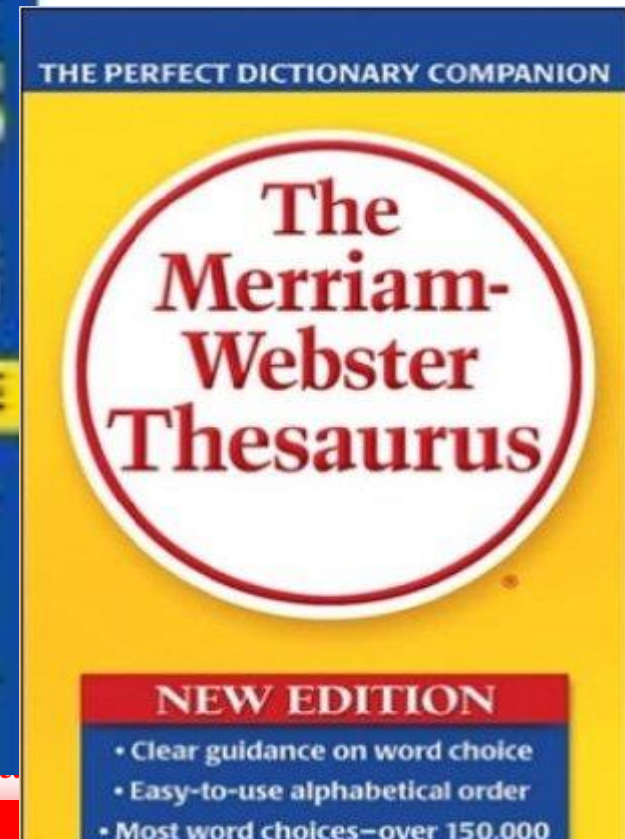
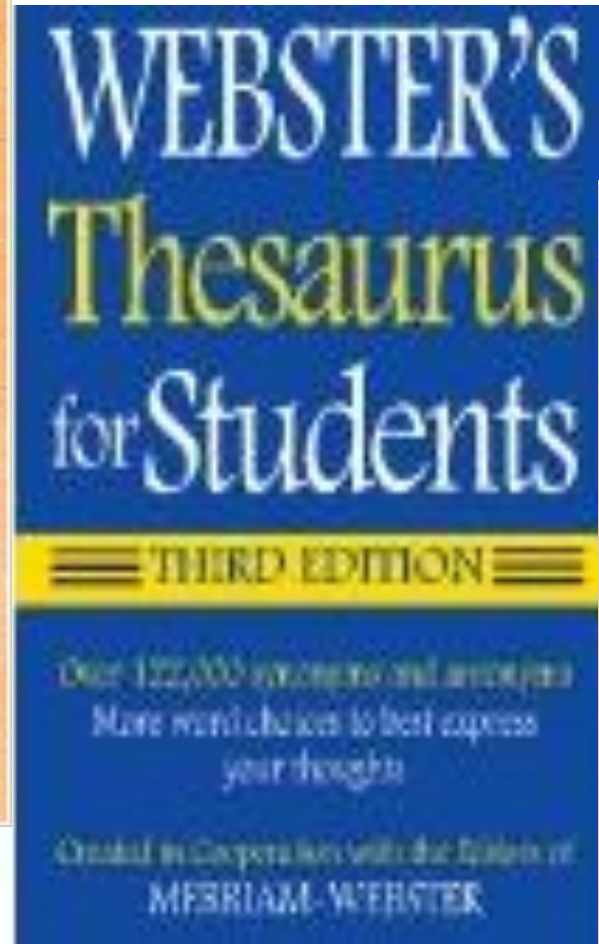
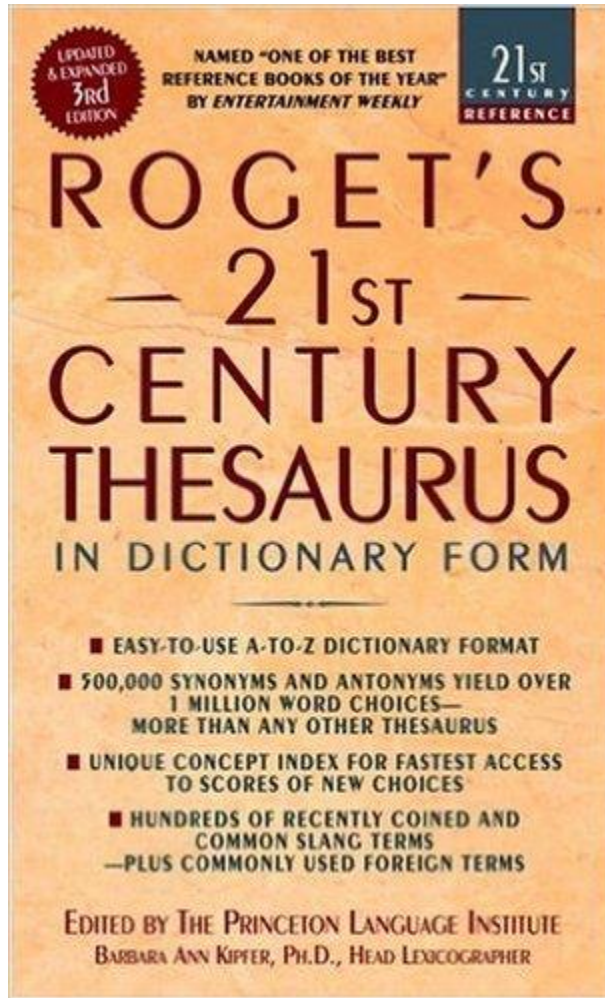
# VENI, VIDI, VICI

# I CAME, I SAW, I CONQUERED VOCABULARY!



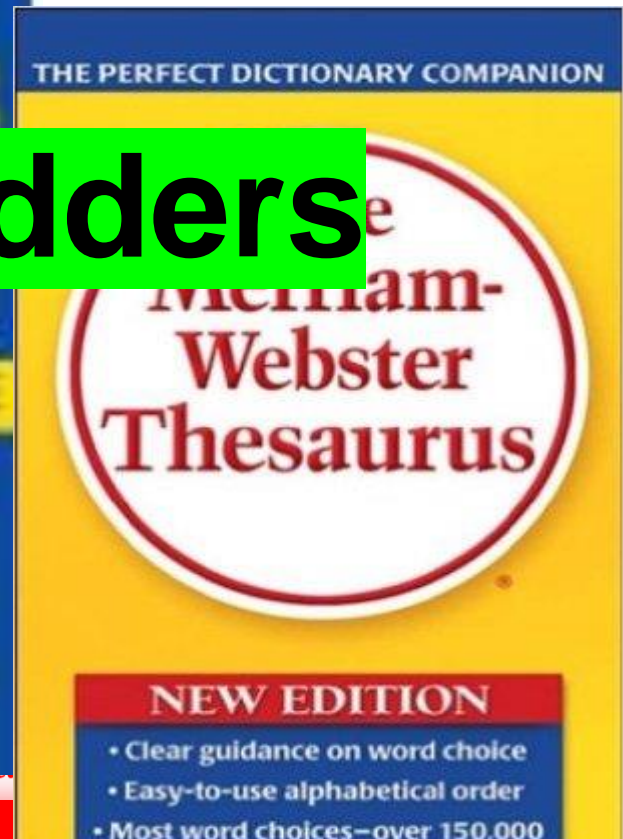
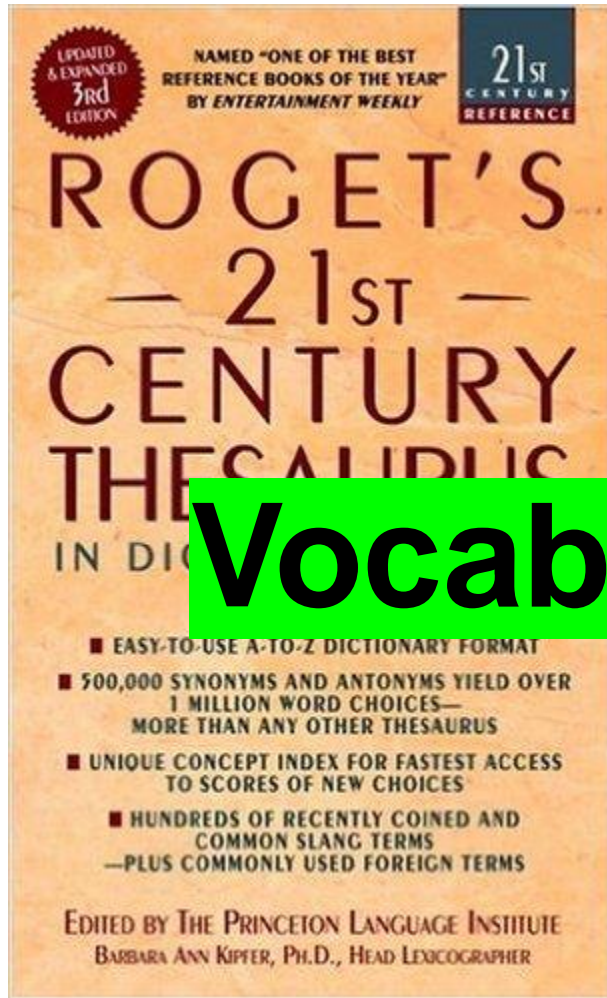


# How to Use a Thesaurus





# How to Use a Thesaurus



**Vocabulary Ladders**

# Vocabulary Ladders

Here's a set of words that have similar meanings – *to travel by foot*:

*Amble*

*Dash*

*Walk*

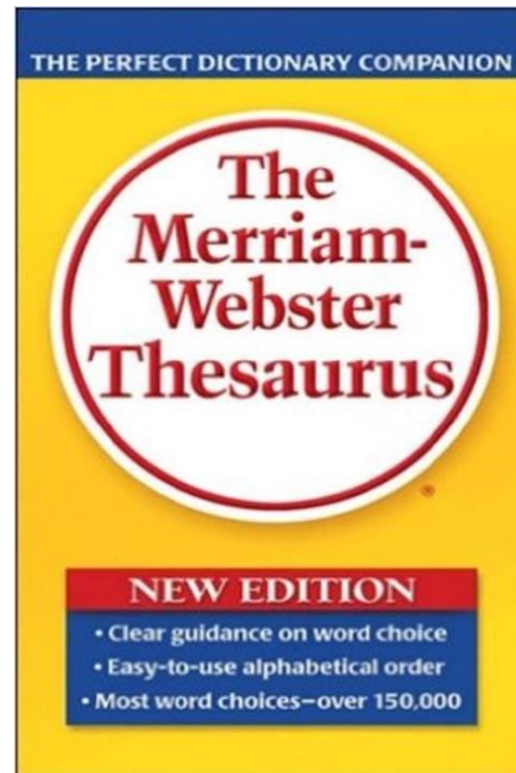
*Jog*

*Traipse*

*Shuffle*

*Trot*

*Plod*



# Vocabulary Ladders

Here's a set of words that have similar meanings – to travel by foot:

<b>Amble</b>	<b>Dash</b>
<b>Walk</b>	<b>Jog</b>
<b>Traipse</b>	<b>Shuffle</b>
<b>Trot</b>	<b>Plod</b>

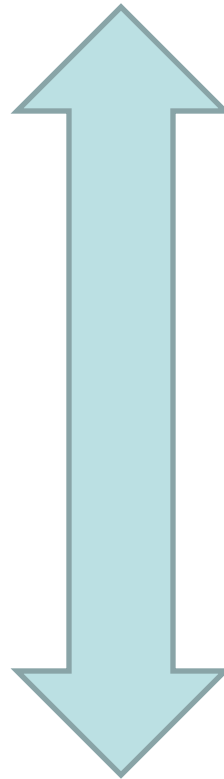
Now order or ladder these words from slowest to fastest?

# Vocabulary Ladders

## Slow to Fast!



*Plod*  
*Shuffle*  
*Walk*  
*Traipse*  
*Amble*  
*Trot*  
*Jog*  
*Dash*



# Vocabulary Ladders

Here's a set of words that have similar meanings – ***to say or tell:***

Yell	Exclaim
Whisper	Explain
Murmur	Scream
Utter	Snicker

# Vocabulary Ladders

Here's a set of words that have similar meanings – **to say or tell:**

Yell	Exclaim
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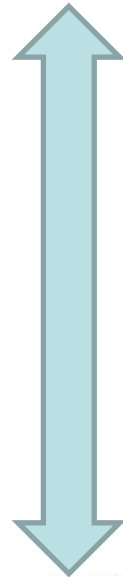
Now order or ladder these words from softest in volume to loudest.

# Vocabulary Ladders

## Soft to Loud!



*Whisper*  
*Murmur*  
*Utter*  
*Snicker*  
*Explain*  
*Exclaim*  
*Yell*  
*Scream*





# Positive to Negative

## Word Ladder

best

perfect

awesome

amazing

great

better

good

satisfactory

acceptable

mediocre

poor

bad

awful

horrible

worst

+

—

coarse

scratchy

bumpy

fuzzy

sleek

satiny

silky

"Texture"

terrified

fearful

alarmed

apprehensive

bold

courageous

heroic

"Bravery"

wail

bawl

whimper

giggle

snicker

chuckle

chortle

"Emotion"

timid

shy

reserved

friendly

sociable

outgoing

extroverted

"Confidence"

# VOCABULARY

H

A

R

V

E

S

T

Freezing

Warm

Luke  
Warm

Boiling

Roaring

Chilly

Noisy

Calm

quiet

Silent

Devour

Chomp

Chew

Bite

Taste

Ruin

Shatter

Damage

Break

Scratch

Inspiring

interesting

routine

boring

dull

Smash

pound

punch

Knock

tap

Produce

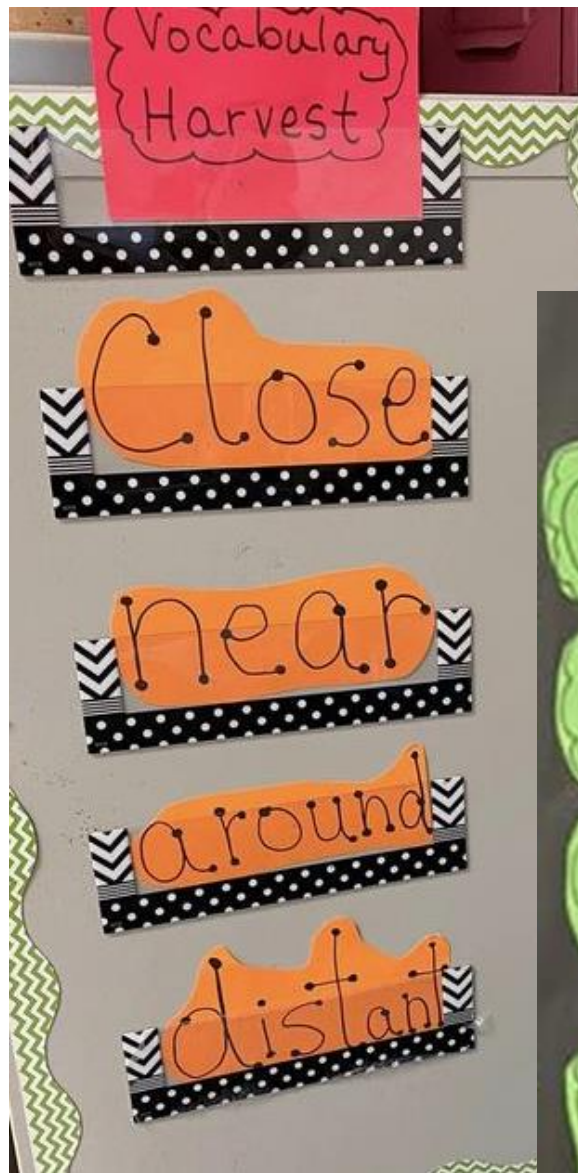
Build

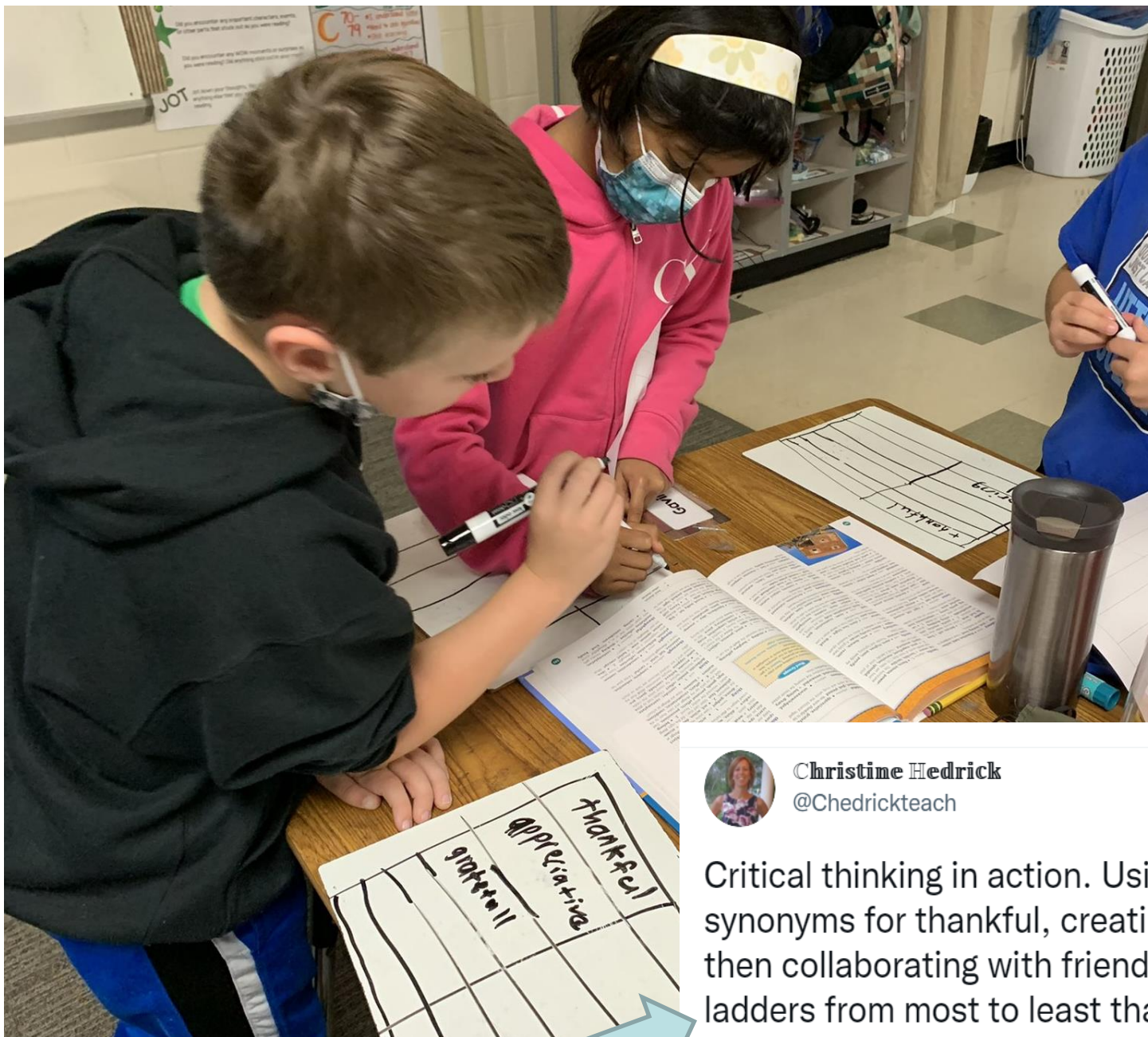
Shape

Plan

Hatched



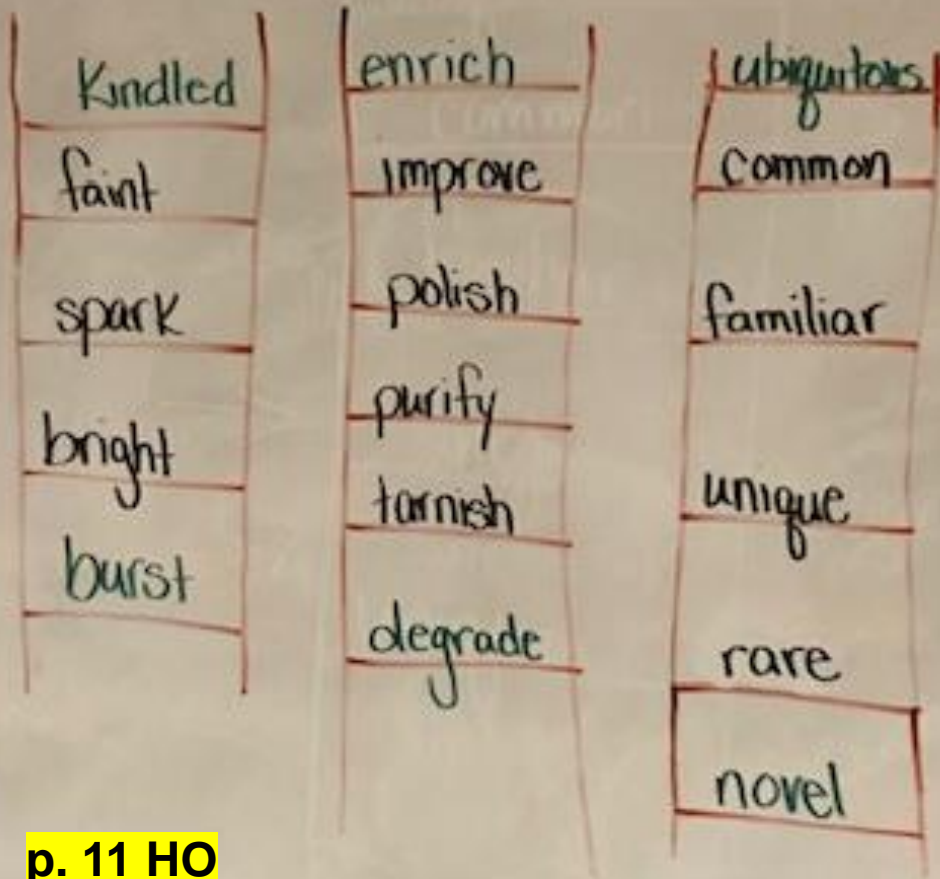




**Christine Hedrick**  
@Chedrickteach

Critical thinking in action. Using a thesaurus to find synonyms for thankful, creating definitions for each, then collaborating with friends to create vocabulary ladders from most to least thankful. I ❤️ teaching.  
[#PanthersEngaged](#) [@TimRasinski1](#) [@PKESAdmin](#)





p. 11 HO

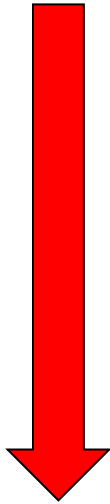
Hello Dr. Rasinski,

I mentioned in our last communication how much I love the vocabulary ladders and want to adapt the concept for my high schoolers. I tried some out with my AP Lit students, and they said they found them to be fun! We used the ladders as a catalyst for discussion about word nuance and how they can use this knowledge in their AP test writing. But mostly...my 17 and 18-year-olds said they were fun! lol I gave them the bottom and top rung, and they filled in the rest.

# Vocabulary Ladders

*Old Guy (Happy Birthday Tim)*

**Polite**



**Impolite**



# Vocabulary Ladders

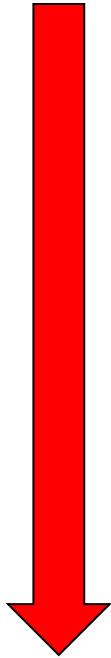
*Old Guy*

**Polite**

*Sage*

*Statesman*

*Elder*



**Impolite**



# Vocabulary Ladders

*Old Guy*

**Polite**

*Sage*

*Statesman*

*Elder*



**Geezer**

**Grumpy Old Man**

**Old Fart!**

**Impolite**



# Let's End With Figurative Language! **Idiomatic Expressions**



# Figurative Language!

## Idiomatic Expressions –

The study of figurative language and idiomatic expressions is **largely missing** from or **limited in** our reading and ELA curricula and curricular materials. Go Figure!

# Figurative Language!

And they are often presented in alphabetic order .....

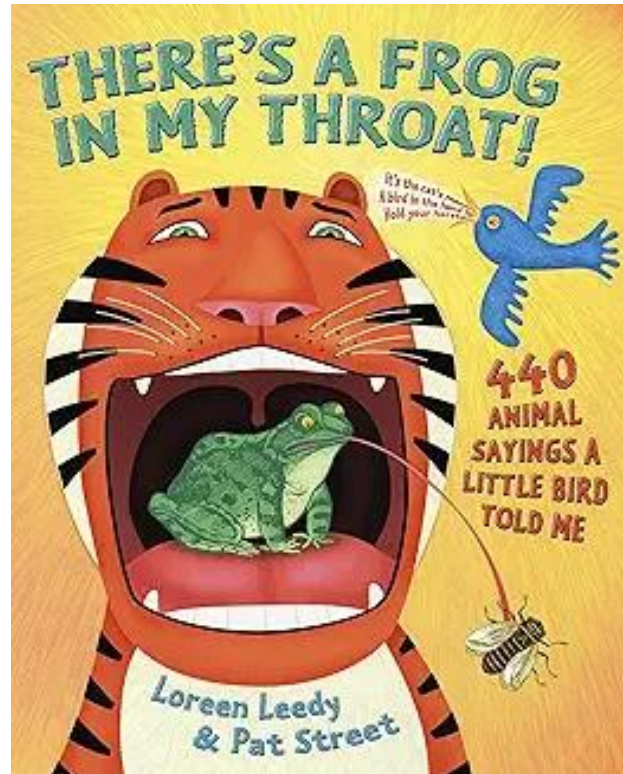
A Idioms	L Idioms
B Idioms	M Idioms
C Idioms	N Idioms
D Idioms	O Idioms
E Idioms	P Idioms
F Idioms	R Idioms
G Idioms	S Idioms
H Idioms	T Idioms
I Idioms	U Idioms
K Idioms	W Idioms

# We Need a Better Resource



# Need a Resource

- [www.Idiomconnection.com](http://www.Idiomconnection.com)



# Need a Resource

- [www.Idiomconnection.com](http://www.Idiomconnection.com)

---

Animal Idioms

Arm, Hand and Finger

Bird Idioms

Body Idioms

Business Idioms

Business Negotiations

Card Playing Idioms

Clothes Idioms

Color Idioms

Court and Judge Idioms

Ear, Eye and Nose Idioms

Education and School

Fish, Insect and Reptile

Food Idioms

Head and Mind Idioms

Heart Idioms

Initials

# Teach Idioms by *Theme or Topic*

# Teach Idioms by *Theme or Topic - **Baseball***

How many baseball idioms can you think of?

# Teach Idioms by *Theme or Topic*

How many baseball idioms can you think of?

Let's see if anyone can “**hit a homerun!**”



# Teach Idioms by *Theme or Topic*



**Three strikes and your out**

**Out in left field**

**Give me a ballpark figure on that**

**Anyone ever play hard ball with you?**

**Anyone every throw you a curve?**

**Who's on deck?**

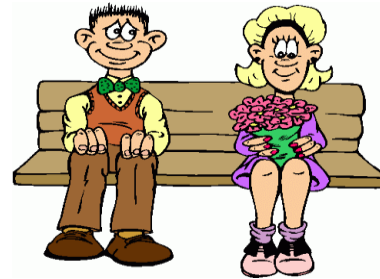
**Keep your eye on the ball.**

**Rounding third and heading home.**



# Teach Idioms by *Theme or Topic*

And of course ....



**Going out on a date and making it past first base?**



# Teach Idioms by *Theme or Topic*

**Now take it to the next level –**

**Have students write a story or other text using as many baseball expressions as possible.**



# Teach Idioms by *Theme or Topic - Food*

How many FOOD idioms can you think of?

You're the apple of my eye

It's as easy as pie

That's a half-baked idea

Hard nut to crack

Here's the story in a nutshell

Ever bite off more than you can chew?

# Idiom Wall

Go bananas!

Very excited!

It's a piece of cake!

Easy

You're the apple of my eye

Very fond

It's as easy as pie

Simple, not difficult

That's a half-baked idea

Not fully thought through

Hard nut to crack

Difficult

Here's the story in a nutshell

Short

summary

Ever bite off more than you can chew?

More than I can

handle

## Written Composition Using Figurative Language

### *Romeo and Juliet Told Through Sports Idioms*

Right off of the bat, Romeo knew he was in love with Juliet. The problem was that across the board, the Capulets hated the Montagues. Romeo was behind the eight ball before he even had a chance to get the ball rolling. He knew it would be tough to score points with Juliet's parents, but he didn't throw in the towel quite yet. He danced with her at the Capulet's ball, and their relationship was off and running. When Juliet's cousin, Tybalt, saw them together, he blew the whistle on Romeo. Juliet's father said that he would call the shots because it was his party, and Romeo was allowed to stay.

Romeo and Juliet dove right into a relationship and got married. It was smooth sailing for them until Tybalt threw Romeo a curve by killing Romeo's friend Mercutio. Romeo had to level the playing field and get back at Tybalt, so he played hard ball and killed him. Romeo was down for the count when the Prince banished him. No one was in his corner except his love, Juliet. Defeated, he rolled with the punches and moved to Mantua.

His friend, Balthasar, wanted to touch base with him, but ended up throwing him a curve. Balthasar mistakenly thought Juliet was dead. Romeo couldn't believe this was happening at this stage of the game; he was supposed to go get Juliet, and they were going to run away together. Romeo really dropped the ball after that. He lay down next to Juliet and took his own life. When Juliet awoke and saw her husband dead, she thought, "That's the way the ball bounces," and stabbed herself. The parents of the young lovers were shocked by what had happened. The announcement of their children's deaths had come out of left field. They decided to tackle the problem of their long feud and built statues in memory of their lost children.



# Teach Idioms by *Theme or Topic*

Here's an example for *Food Lovers*  
*“You’re A Sage Rosemary”*





## **“YOU’RE A SAGE, ROSEMARY”**

Bonnie von Hoff Johnson and Dale D. Johnson  
(from Proteus Magazine)

Eventually I heard through the grapevine that I was playing second banana. Frank had found a floosie-a tart. I decided to stalk Frank on his next outing to see for myself. This isn’t sour grapes talking, but when I saw them together, they looked crummy. A string bean and a carrot-top shrimp. Comparing Frank’s new sweetie pie and me was like comparing apples and oranges. I was afraid I’d toss my cookies, but I swallowed hard and drove home.

When Frank arrived, I didn’t mince words. I told him to spill the beans about his little cupcake. “Don’t try to sugar-coat the facts, Frank,” I warned. “You were caught with your hand in the cookie jar.” Frank turned beet red but remained as cool as a cucumber. “Don’t clam up now,” I yelled, “and don’t fudge. The truth, Frank.” He suggested that I simmer down, and then Frank told me the whole enchilada. He said he had wanted to sow some wild oats for the past year and he did. First, there was Olive. Then came Ginger. After egging him on, Frank finally told me about “saucy like Pickles.”

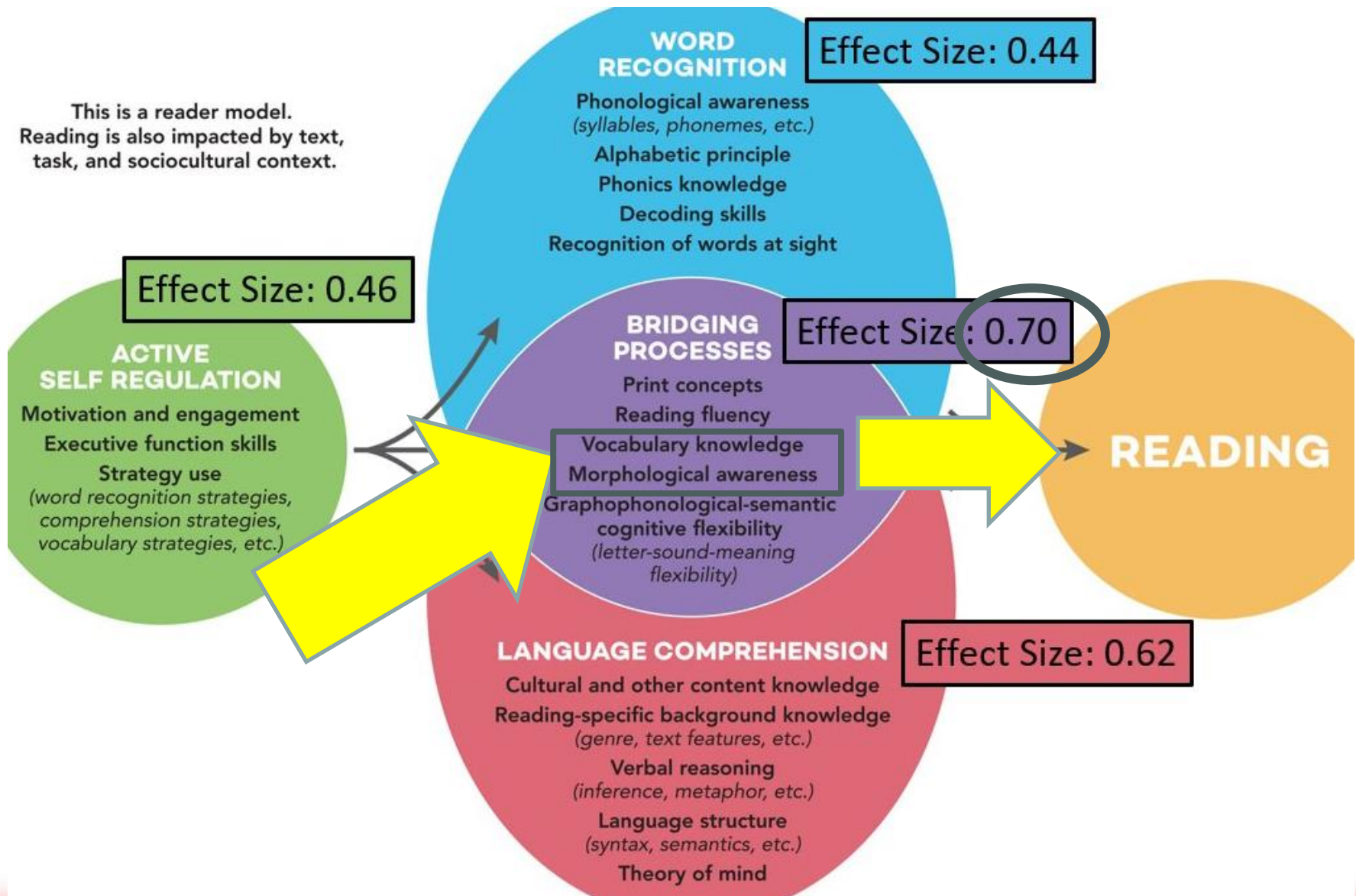


# SOR

## SCIENCE OF READING

# Interactive View of Reading -2021

This is a reader model.  
Reading is also impacted by text,  
task, and sociocultural context.



# A Poem About Words

A word is dead  
When it is said,  
Some say.

I say it just  
Begins to live  
That day.

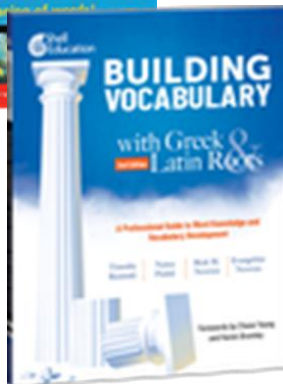
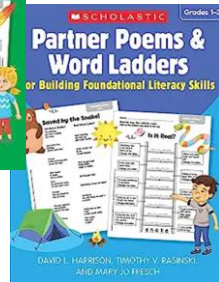
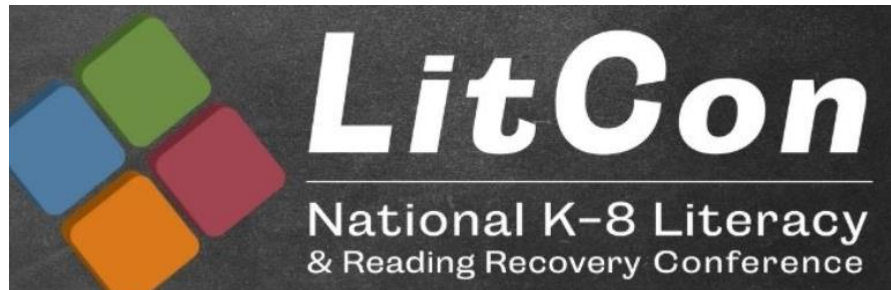
--*Emily Dickinson*



# Veni, Vidi, Vici Vocabulary!

## Conquering Vocabulary through Morphology Instruction

### ...And More



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