

Vocabulary Development and Word Study Instruction: Keys for Success in Learning to Read

Timothy Rasinski
trasinsk@kent.edu, 330-672-0649
Kent State University, Kent, OH 44242

1. Students learn 1,000 to 4,000 new words each year.
2. Vocabulary involves a depth component as well as a breadth component.
3. Vocabulary learning involves connotative (inferred/implied) and denotative (literal) meanings of words.
4. Why teach vocabulary?
 - a. Improves reading comprehension
 - b. Improves writing.
 - c. Aids in word recognition or decoding.
 - d. Increases general intelligence.
5. Vocabulary is least well learned under the following conditions:
 - a. Mindless repetition and defining of words
 - b. Words that are too difficult
 - c. Words that have no connection to students' lives, their studies, their interests, or to other words and concepts they may know.
6. Best ways to learn/teach words
 - a. Direct life experiences.
 - b. Indirect life experiences – Read!
 - c. Direct instruction that includes the following characteristics:
 - 1) Makes connections to what students' lives, studies, and interests.
 - 2) Makes connections/relationships to/with other words.
 - 3) Involves analysis through compare and contrast.
 - 4) Involves categorization and classification.
 - 5) Involves stories about words.
 - 6) Helps students detect meaningful patterns in words.
 - 7) Provides for a degree of personal ownership.
 - 8) Learn new words of course and explore old words to new depths.
 - 9) Explore the implied meanings of words and phrases.
 - 10) Is game-like and engaging
 - 11) Use word knowledge to improve writing.
 - 12) Use word knowledge to construct meaning while reading (comprehension)

Selected Statistics for Major Sources of Spoken and Written Language

<u>Text</u>	<u>Number of Rare (uncommon) words per 1000</u>
Adult Speech, Expert Witness Testimony	28.4
Adult Speech, College Graduates to Friends	17.3
<i>Mr. Rogers and Sesame Street</i>	2.0
Children's Books -- Preschoolers	16.3
Children's Books -- Elementary	30.9
Comic Books	53.5
Popular Magazines	65.7
Newspapers	68.3
Adult Books	52.7
Abstracts of Scientific Articles	128.0

Adapted from Hayes & Ahrens (1988). Journal of Child Language, 15, 395-410.

Source: Cunningham, A.E. & Stanovich, K.E. (1998, Spring-Summer). What reading does for the mind. American Educator, 22, 8-15.

Vocabulary Development -- Concept Map

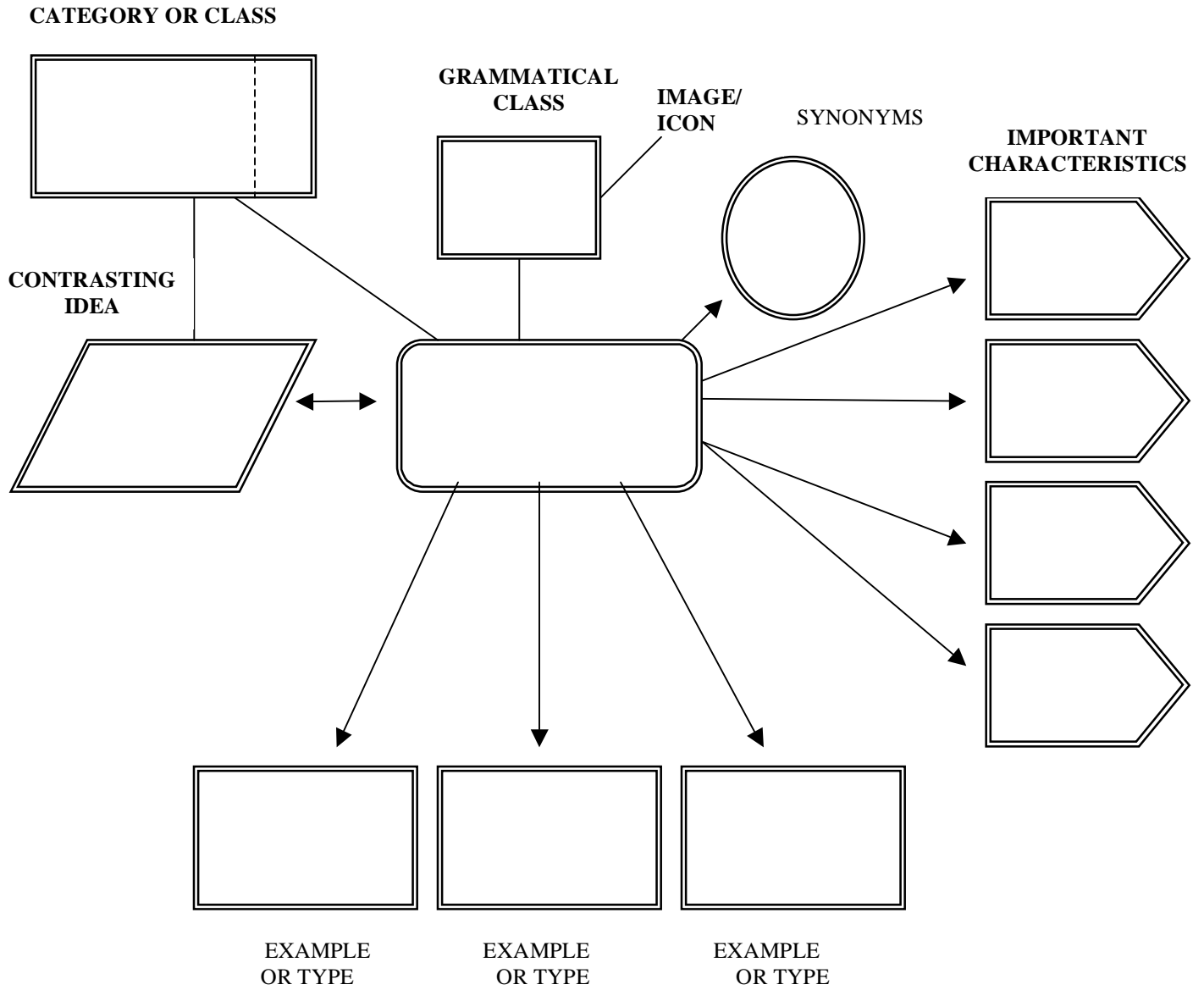
Purpose:

To help students develop definitional knowledge in relation to other words and concepts.

Procedure:

1. Begin with a key word or words you want students to learn. If it is a word they have some familiarity with they can create the concept map. If it is a word students are probably unfamiliar with, teachers can present a completed concept map to students.
2. Working alone or in small groups, students discuss and choose words, concepts, and phrases that fit the definitional categories of the key word. The definitional categories can include hierarchical concept, comparison/contrast concept, synonymous concepts, characteristics of the key word, and examples of the key concept.
3. If working in groups, students can share they group definition with the class and compare how different groups came up with different responses to the various definitional categories. The various maps can be placed on display for student analysis and comparison.

CONCEPT MAP



Vocabulary Development --- List Group Label, Word Sorts

Purpose:

To brainstorm words related to a particular topic or theme; and to sort those words into various categories. To build background knowledge related to a particular topic.

Procedure:

1. Select a topic or theme. This can be a topic to be studied in a subject area, a time of year or holiday, a topic to be read about in an upcoming text.
2. Individually or in small or large groups, students brainstorm word related to the topic. The teacher may also contribute words to this list.
3. Once words are brainstormed, students group 2 or more words and list them together. They also create a label that defines or describes the categorization.
4. Once words are categorized (grouped and labeled), new words can be added to each category (This shows how once randomly listed words are organized, the brain can begin to include other words related to the category, but not originally listed). Students discuss their rationale for organizing and grouping the words.
5. Grouped and labeled words can be transformed into a semantic web or an informational outline.

Word Sorts

1. Word sorts activities are done is much the same way, except the words and categories are usually predefined by the teacher.
2. In some cases you may have a sort in which the words are already sorted, or categorized. Students are challenged to think of the category names for the sorted words
3. As with List Group Label the actual work of Word Sorts should be accompanied by explanatory discussion.

List Group Label -- Example

Words Listed

Topic = _____

Words Grouped and Labeled

Transformation: Semantic Map

Transformation: Outline

Words:

Blue *Gray* *Lee* *Lincoln* *Jefferson Davis*
Slavery *Grant* *Shiloh* *Gettysburg* *States Rights*
John Brown *Abolition* *Richmond* *Bull Run* *Vicksburg*
Stonewall Jackson *Atlanta* *Sherman* *Reconstruction*
Virginia *Ohio* *McClelland* *Washington* *Underground RR*
Secession *Kentucky* *Texas* *Freedmen* *Massachusetts*

Sort #1, Words Associated with...

North South Other

Sort #2,

Before Civil War During Civil War After Civil War Other

Sort #3,

Military Politics Other

Sort #4,

Leaders Battles Other

Vocabulary Development: Semantic Feature Analysis (SFA)

Purpose:

Provides students with practice in analyzing words and concepts along various defining dimensions, characteristics, or features.

Procedure:

1. Obtain a blank grid (see template).
2. Identify a topic or theme from which to draw words to analyze.
3. Choose or invite students to choose a set of items, objects, or concepts that fit within the topic of theme (e.g. Topic = Texas Cities, Concepts = Dallas, Houston, Wichita Falls, etc.; Topic = American Leaders, Concepts = Washington, JFK, FDR, LBJ, etc.). The concepts are listed in the left hand column.
4. Brainstorm, alone or with students, features or characteristics that one or more of the concepts possess (e.g. Topic = Texas Cities, Features = Population over 500,000; Major sea port, southern half of state, state capital, contains military base). List the features along the top row of the grid.
5. Students use the features to analyze the concepts. Initially students can place a yes or no in each box to indicate the presence or absence of the feature. As students become more adept at using SFA, they can rate the degree to which each concept contains such a feature (e.g. 1 = does not possess the feature at all, 2 = possess the feature to some degree, 3 = possesses the feature to a very high degree -- very descriptive of the concept).
6. Students should discuss their reasoning with their classmates after completing the grid analysis.
7. After completing the analysis, students can write definitions for each concept using the various features or attributes that were the basis for the analysis (e.g. Houston is a large Texas city located in the southern part of the state; it is a major sea port but is not the state capital...).

Vocabulary Development -- Word Histories, Word Derivations

Purpose:

Knowing the history of words can often help students understand other important aspects of the history from which the word born. Moreover, knowledge of meaningful affixes, particularly from Latin and Greek, can help students determine the meanings of words they have not met before.

Procedures:

1. Introduce students to a word history or place name story each day. Place the word in a prominent place of the classroom and try to use the word often in speech and writing.
2. Introduce students to a new word affix/morpheme. Define the meaning. Think of other words that share the affix and attempt to determine their meanings.
3. Create novel words using words from history or the present and/or using Latin or Greek morpheme. Challenge students to determine the meaning for the new words. Challenge students to create new words from words and morphemes the class has explored.

Examples:

What is the story (history) of the following words? How might knowledge of these words inform our knowledge of other words.

Akron (Ohio)

Polonium

Vermont

Verdent

Palo Verdes

Palo Alto

Tawdry

Pedal

Pedestrian

Pedestal

Piedmont

Word Derivations

Some Common Greek and Latin Morphemes

<i>ast</i>	<i>star</i>	<i>phon</i>	<i>sound</i>	<i>therm</i>	<i>heat</i>	<i>dem</i>	<i>people</i>
<i>graph</i>	<i>write</i>	<i>cycl</i>	<i>circle</i>	<i>scop</i>	<i>see</i>	<i>arch</i>	<i>chief</i>
<i>anthr</i>	<i>man</i>	<i>cosm</i>	<i>universe</i>	<i>bio</i>	<i>life</i>	<i>gyn</i>	<i>woman</i>
<i>crat</i>	<i>rule</i>	<i>auto</i>	<i>self</i>	<i>hydr</i>	<i>water</i>	<i>geo</i>	<i>earth</i>
<i>gam</i>	<i>marriage</i>	<i>neo</i>	<i>new</i>	<i>phob</i>	<i>fear</i>	<i>onym</i>	<i>name</i>
<i>phys</i>	<i>nature</i>	<i>soph</i>	<i>wisdom</i>	<i>the</i>	<i>god</i>	<i>phil</i>	<i>love</i>
<i>paleo</i>	<i>old</i>	<i>morph</i>	<i>change</i>	<i>pod</i>	<i>foot</i>	<i>psych</i>	<i>mind, soul</i>
<i>cine</i>	<i>movement</i>	<i>cardi</i>	<i>heart</i>	<i>poly</i>	<i>many</i>	<i>anti</i>	<i>against</i>
<i>bi</i>	<i>two</i>	<i>micro</i>	<i>small</i>	<i>tele</i>	<i>distant</i>	<i>demi</i>	<i>half</i>
<i>ante</i>	<i>before</i>	<i>epi</i>	<i>after</i>	<i>post</i>	<i>after</i>	<i>intra</i>	<i>within</i>
<i>pan</i>	<i>all</i>	<i>omni</i>	<i>all</i>	<i>ab</i>	<i>from</i>	<i>contra</i>	<i>against</i>
<i>meta</i>	<i>change</i>	<i>pseudo</i>	<i>false</i>	<i>hetero</i>	<i>different</i>	<i>homo</i>	<i>same</i>
<i>bene</i>	<i>good</i>	<i>dys</i>	<i>bad</i>	<i>amphi</i>	<i>both, around</i>	<i>para</i>	<i>almost</i>
<i>ambi</i>	<i>both, around</i>	<i>mal</i>	<i>bad</i>	<i>ology</i>	<i>science of</i>	<i>ang</i>	<i>bend</i>
<i>credit</i>	<i>believe</i>	<i>ped</i>	<i>foot</i>	<i>vac</i>	<i>empty</i>	<i>tract</i>	<i>pull</i>
<i>mob</i>	<i>move</i>	<i>man</i>	<i>hand</i>	<i>loc</i>	<i>place</i>	<i>volv</i>	<i>roll</i>
<i>belli</i>	<i>war</i>	<i>agri</i>	<i>field</i>	<i>alt</i>	<i>high</i>	<i>ambul</i>	<i>walk, go</i>
<i>cand</i>	<i>glow</i>	<i>cogn</i>	<i>know</i>	<i>aqua</i>	<i>water</i>	<i>amo</i>	<i>love</i>
<i>alter</i>	<i>other</i>	<i>cord</i>	<i>heart</i>	<i>dent</i>	<i>tooth</i>	<i>fric</i>	<i>rub</i>
<i>fid</i>	<i>faith</i>	<i>grad</i>	<i>step</i>	<i>frater</i>	<i>brother</i>	<i>grat</i>	<i>pleasing</i>
<i>domin</i>	<i>master</i>	<i>fug</i>	<i>flee</i>	<i>luc</i>	<i>light</i>	<i>mater</i>	<i>mother</i>
<i>max</i>	<i>greatest</i>	<i>mand</i>	<i>order</i>	<i>unct</i>	<i>join</i>	<i>mort</i>	<i>death</i>
<i>mut</i>	<i>change</i>	<i>lab</i>	<i>work</i>	<i>jur</i>	<i>law</i>	<i>ject</i>	<i>throw</i>
<i>narr</i>	<i>tell</i>	<i>neg</i>	<i>no</i>	<i>nav</i>	<i>ship</i>	<i>pater</i>	<i>father</i>
<i>rad</i>	<i>spoke</i>	<i>pug</i>	<i>fight</i>	<i>scend</i>	<i>climb</i>	<i>reg</i>	<i>guide, rule</i>
<i>sci</i>	<i>know</i>	<i>scribe</i>	<i>write</i>	<i>stell</i>	<i>star</i>	<i>tact</i>	<i>touch</i>
<i>ten</i>	<i>stretch</i>	<i>tex</i>	<i>weave</i>	<i>vag</i>	<i>wander</i>	<i>ver</i>	<i>truth</i>
<i>voc</i>	<i>voice</i>	<i>vit</i>	<i>live</i>	<i>term</i>	<i>end</i>	<i>spir</i>	<i>breathe</i>

Latin and Greek Roots to English

Prefixes

Anti	against
Auto	self
Bi	two
Centi	hundred
Co	with, together
Extra	more, beyond
Mega	large
Micro	small
Mid	middle
Mono	one
Multi	many
Phono	sound
Poly	many
Pre	before
Re	again
Semi, hemi	half
Super	over
Tele	distant
Tri	three
Ultra	beyond
Un	not
Uni	one

Other word parts

Aero	air	Scop	see
Aud	hear	Struct	build
Biblio	book	Terr(a)	land
Bio	life	Therm	heat
Chron	time	Volv	roll
Dem	people	Vor	eat
Gram	write		
Graph	write		
Hydr	water		
Lab	work		
Max	greatest		
Ped	foot		
Phon	sound		
Photo	light		
Port	carry		
Psych	mind		

See Rasinsk, Padak, Newton & Newton. (2008). Greek and Latin Roots: Keys to Vocabulary. Shell Publishing

IDIOMS

Excerpts from “YOU’RE A SAGE, ROSEMARY”

By 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.”

Frank tried to eat humble pie. He whimpered that he still loved me and would like to stay married, but I raged, “You’re full of baloney, Frank. You’re not worth a fig. You can’t have your cake and eat it, too. I’m dropping you like a hot potato. I have bigger fish to fry. How do you like *them* apples?” Frank told me to simmer down, but I was boiling. “Now you’re in a pickle, Frank!” I fumed. “Your goose is cooked.” I gave him the raspberries and stormed out.

For more see: Leedy, Lorreen (Illustrator) and Street, Pat (author). (2003). *There’s a Frog in My Throat*. New York: Holiday House

Idiomconnection.com

Rasinski, T. V. (2008). *Understanding Idioms and other English Expressions. Grs 2-3 and 4-6*. Shell Publishing

Categories for Idioms

Ducks and Geese
Horses
Dogs
Cats
Farms
Factory – Work
Seasons/Weather
Track and Field
Baseball
Football
Basketball

Colors
Numbers
Nautical/Water
Church
Fish
Food/Kitchen
Cars and Trucks
Stars and Space
Plants, Flowers, and Tree

Vocabulary Time Lines

Make appropriate additions to the following vocabulary time lines. List are synonymous vertically, on top of one another.

Told
Said

Hot

Cold

Beautiful

Ugly

Tall

Short

Young

Old

Odiferous

Old Man

Vocabulary Development: Games/Riddles/Puzzles

Purpose:

Words should be learned in a playful and exploratory environment. Various word games give students opportunities to play with words, to practice words, and to explore words. A few favorite word games, riddles, and puzzles include WORDO, Synonymic Rhyme Riddles, and Scattergories.

Procedures:

WORDO: Each student is given a blank WORD card. Teacher identifies 24 words from any area of study. Words are written on the board while students randomly write one word in each square (one square is marked Free). Play begins with the teacher (or Master of Ceremonies) giving students the definition/synonym/antonym or some other clue to one of the randomly drawn words. When students determine the given word, they place a marker over the word on their card. First player to have marker across a complete row, column, or diagonal wins the game.

Synonymic Rhyme Riddles (Also known as Hink Pinks -- 1 syllable; Hinky Pinkies -- 2 syllables, and Hinkity Pinkities -- 3 syllables): Synonymic Rhyme Riddles are two or more rhyming words that are answers to riddles. These can be related to any subject area. Students can be encouraged to create their own synonymic rhyme riddles.

- | | |
|--|--------------|
| An intelligent award | wise-prize |
| A fraudulent reptile | fake-snake |
| An obese rodent | fat-rat |
| | |
| A female horse in the
shape of equilateral
parallelogram | square-mare |
| | |
| A popular song played
With lettuce and cucumbers | salad-ballad |

Scattergories: Played with a grid (see template). On left hand column are written a random assortment of letters, one letter per line. On the top row are items for which there are many examples (Presidents, countries, elements, musical words, artists, etc.). Students are challenged to find words that fit the categories and at the same time begin with one of the designated letters

Vocabulary Development -- Prevoke (also known as Vocabogram)

Purpose:

Challenges students to use designated words from a text narrative or essay to sort into designated categories and to predict various aspects of the upcoming reading. Encourages prediction, an important aspect of proficient and engaged reading, as well as vocabulary development.

Procedures:

1. Select a text that you wish students to read. Identify 10-20 important words or short phrases from the text. Identify these words and phrases to students.
2. Choose categories into which you want to students to sort words (e.g. words related to plot, setting, tension of the story, characters, good words, bad words, descriptive and nondescriptive words, interesting words, essential and nonessential words, feeling words, nonfeeling words, etc.)
3. Introduce students to word set. Ask them to work in groups or alone in sorting the words into the categories you specific. Discuss the categorization when completed.
4. Once students have become familiar with the words and their meaning, through the categorization, have students make predictions about some aspect of the text to be read, or about the entire text. Share the predictions and explanations for the predictions.
5. Read the text to the students, or have them read it themselves. The predictions should act as purposeful questions that will engage students in making sense of the text.

Vocabulary Development -- Cloze Procedure

Purpose:

Many words are learned through our own reading. The cloze procedure encourages students to predict/determine deleted words from a given text, using the context of the text along with whatever background knowledge the reader may have about the text topic or conventions of text.

Procedures:

1. Choose a brief section of a text to be read, or a text that has been read some time in the past. Delete words for the brief passage (no more than one word of every five). Retype the passage with the words deleted, or copy the original text with the deleted words marked out with a marker.
2. Students read the text and attempt to determine the deleted words using their background knowledge and the context of the passage.
3. Students discuss their word selections along with the reasons for making their selections. This helps those students who may not know the reasoning behind correct selections.

Cloze Passage Example -- Taken from Pyramid by David Macaulay

Life in Egypt was fairly simple. Most people were 1._____. For eight or nine 2._____ of the year they tended their small plots along the 3._____ river, growing 4. w_____, 5. fr_____, and 6. v_____. Others raised cattle, sheep, and 7. g_____. They tried to feed themselves, pay their 8. t_____, and store enough 9._____ to last through the annual inundation. This was the time between July and November when the river rose and 10._____ most of the farmland. The 11._____ eventually receded, leaving a new layer of rich and 12. f_____ earth.

Between 3000 and 1100 13. ___ the country was ruled by a long line of kings called 14._____.

Alternative method for recording answers

- | | |
|-----------|-----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |
| 7. _____ | 8. _____ |
| 9. _____ | 10. _____ |
| 11. _____ | 12. _____ |
| 13. _____ | 14. _____ |

Program Overview

Building Vocabulary from Word Roots is a systematic approach to word awareness and vocabulary building for students in grades three through eight. Based on the premise that over 90 percent of English words of two or more syllables are of Greek or Latin origin, *Building Vocabulary from Word Roots* teaches essential word strategies that enable students to unlock the meaning of vocabulary words they encounter inside and outside of school. *Building Vocabulary from Word Roots* teaches Greek and Latin prefixes, bases, and suffixes—the semantic units from which the vast majority of English words are derived.

The series consists of six *Teacher's Guides* with accompanying *Guided Practice Books* for students. Every student should have a *Guided Practice Book*, which will be used throughout the entire year. Each part of a lesson can be completed in 10–15 minutes per day, with the entire lesson completed in one week. Since the series is designed to support students with a range of reading and vocabulary levels, teachers can select the activities that will best meet their students' needs. Each lesson offers a variety of activities to choose from.



In Part A (“Meet the Root”), students “divide and conquer” a list of English words as they identify the prefix, base, and/or suffix.



In Part B (“Combine and Create”), students compose English words built from the root.



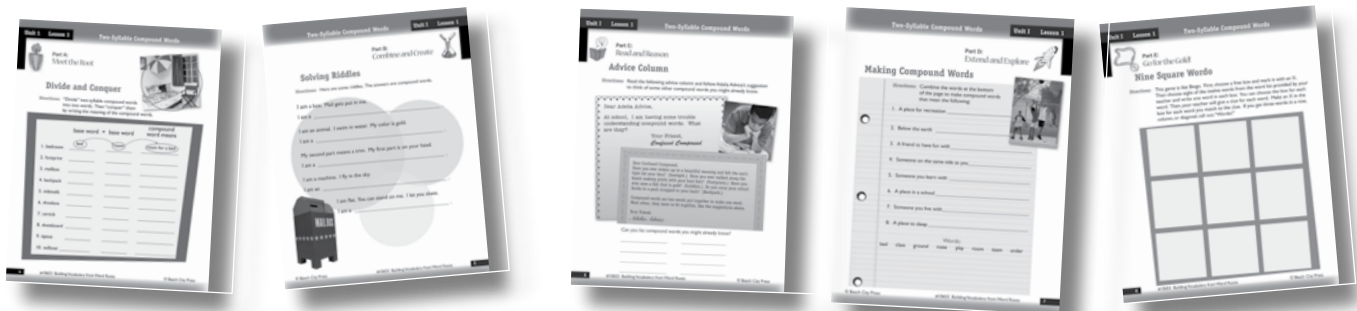
In Part C (“Read and Reason”), students read short paragraphs and poems as they encounter the word parts in context.



In Part D (“Extend and Explore”), students work individually and in groups to create applications for the new vocabulary.



In Part E (“Go for the Gold!”), students enjoy word games as they review the words and concepts for the week.



Program Overview (cont.)

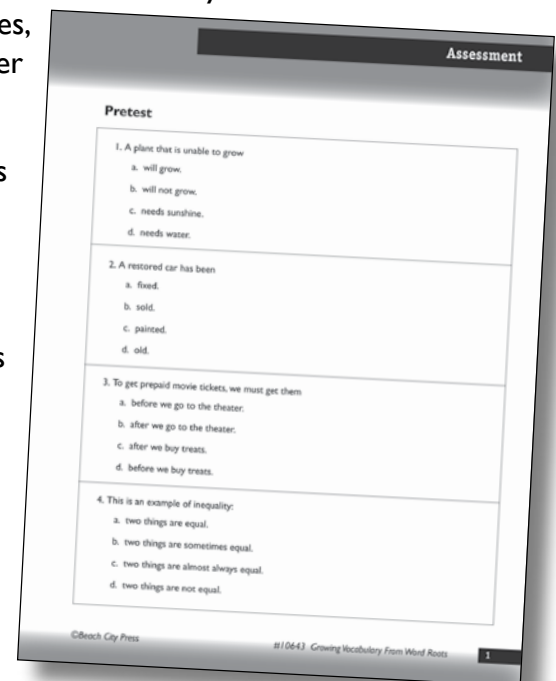
In this program, students are introduced to one new root per week, with daily activities to ensure that students learn the root and the many English words it generates. The *Teacher's Guide* provides a lesson plan and shows each student activity found in the *Guided Practice Book* and on the bonus pages CD. The bonus pages on the CD can be printed in color or in black and white. They can also be projected onto a screen for the students to see, depending on the technology available in your classroom. Read the directions at the top of each page with students and complete the activity together. The *Teacher's Guide* also contains overhead transparencies for some of the lessons. Teach the two-page lesson plan on the first day of the lesson, which should be the same day that Part A is completed.

The *Building Vocabulary from Word Roots* program for each level is designed to fit within a 28-week school year. Each unit is designed for a five-week period, with every sixth week dedicated to review. The final unit of each school year is designed for a three-week period, with a fourth week for review. Thus, the five units for each grade present students with 20–25 essential prefixes, bases, and suffixes. In a typical year, two units are devoted to prefixes, one to suffixes, and two to Latin and Greek bases. Over the six-year curriculum of *Building Vocabulary from Word Roots*, students will master 120–150 classical roots and will be eminently prepared for success in high school and beyond. They will be thoroughly familiar with all the Greek and Latin prefixes, bases, and suffixes of the vocabulary words they will encounter in the post-intermediate grades.

If this program is being used in a summer school setting, parts of lessons can be combined, so that an entire lesson is taught each day. Each lesson takes 50–75 minutes to complete (10–15 minutes per part).

In the Assessment section of the *Teacher's Guide* are two tests that can be used before and after students' experiences with *Building Vocabulary from Word Roots*. The same 20 word parts are on each test. Items focus on knowledge of the meaning of the word parts. The answer key is included.

The *Teacher's Guide* also has a resource section. This section offers resources for teachers and their students to add depth and breadth to the vocabulary study in *Building Vocabulary from Word Roots*.

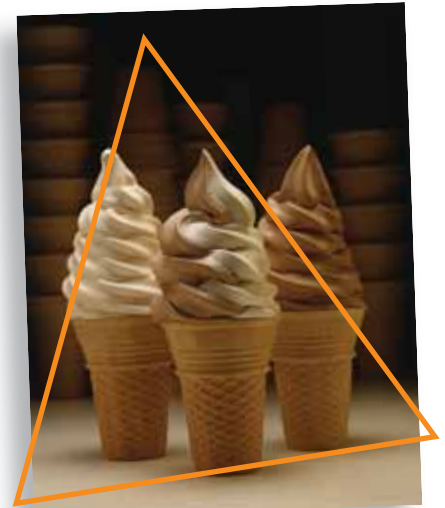




Part A:
Meet the Root

Divide and Conquer

Directions: "Divide" words into two parts. There is a Latin number prefix and a base. The bases have been given to you. Then "conquer" them by writing the meaning of the words.



	prefix means	base means	word means
1. triangle	<u>three</u>	<u>angle = angle</u>	<u>a shape with three angles</u>
2. tripod	<u> </u>	<u>pod = foot</u>	<u> </u>
3. trio	<u> </u>	<u>X</u>	<u> </u>
4. tricolor	<u> </u>	<u>color = color</u>	<u> </u>
5. trident	<u> </u>	<u>dent = tooth, teeth</u>	<u> </u>
6. triple	<u> </u>	<u>ple = fold, multiply</u>	<u> </u>
7. triplets	<u> </u>	<u>ple = fold, multiply</u>	<u> </u>
8. triplex	<u> </u>	<u>ple = fold, multiply</u>	<u> </u>
9. triathlon	<u> </u>	<u>athl = contest</u>	<u> </u>
10. trifocals	<u> </u>	<u>foc = focus, hearth</u>	<u> </u>

Part B:
Combine and Create



Solving Riddles

Directions: Solve the word riddles. Each answer will begin with *tri-*.

1. I am a two-dimensional figure.
I have three corners or angles and three sides.
I also have three syllables. _____

2. I have pedals.
Young children ride me.
I have three wheels. _____

3. I happen in baseball.
I don't happen very often.
I happen when a team gets three outs on one play.
I am two words. _____

4. I am a stand for a camera.
I have three "feet" or "legs."
I only have two syllables. _____

5. We are three children.
We were born at the same time.

6. My name is Neptune.
I am the Roman god of the sea.
I use a "three-toothed" fork to catch fish.
What do you call this three-pronged spear?





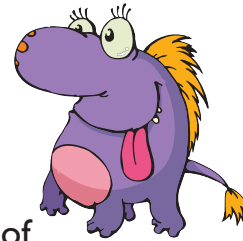
Part C: Read and Reason

Fill in the Blanks

Directions: Choose words from the Word Bank to fill in the blanks for the following news story. Then answer the questions.

Today in math class we drew a _____, a polygon with three sides. We also looked at a _____ angle that showed how the angles inside the triangle look. Then the math teacher told us we were going to _____ our knowledge of shapes, meaning that we were going to multiply our math skills by three.

Directions: Answer these questions by taking another look at the words in the Word Bank.



Word Bank

triangle
triangular
triathlon
tricolor
tricycle
trio
triple
triple-decker
triple play
triplane
triplet
triplicate
tripod
trisect

1. Pick out a word that you already know the meaning of.

Write the word. _____

What does it mean? _____

2. Pick out a word you are not sure about.

Write the word. _____

Divide it into parts. What do you think it means? (Remember that *tri-* means "three.") _____

3. Pick out a word you do not know at all.

Write the word. _____

Divide it into parts. What do you think it means? (Remember that *tri-* means "three.") _____

Part D:
Extend and Explore



Word Sort

Directions: Sometimes *tri-* means "three." Sometimes it doesn't. Put these words on the chart where they belong.

trinket trip triplet trifocal trifle tricycle
tribe tricolor trim trick trio triple

<i>tri-</i> means "three"	<i>tri-</i> doesn't mean "three"

DID YOU KNOW?

The Roman god of the sea was named Neptune. He had long hair like seaweed and always carried a harpoon, a large pole with *three* prongs. The Romans called this weapon a *trident* because it had three (*tri-*) "teeth." Neptune used his trident to harpoon fish and remind all the sea creatures that he was their king.





Part E:
Go for the Gold!

Nine Square Wordo

Directions: This game is like Bingo. First, choose a free box and mark it with an X. Then choose eight of the twelve words from the word list provided by your teacher and write one word in each box. You can choose the box for each word. Then, your teacher will give a clue for each word. Make an X in the box for each word you match to the clue. If you get three words in a row, column, or diagonal, call out, "Wordo!"

Roots Chart

Below is the list of prefixes, suffixes, and bases explicitly taught in *Building Vocabulary from Word Roots*.

Level 3

PREFIX

bi-
co-
con-
ex-
il-
im-
in-
pre-
re-
sub-
tri-
un-
uni-
unit-

SUFFIX

-er
-est
-ful
-less
-ly

BASE

fin
finit
gram
graph
mobil
mot
mov
port
vid
vis



Level 4

PREFIX

auto-
col-
com-
de-
im-
in-
inter-
mega-
megal-
micro-
multi-
per-
poly-
pro-
tele-
trans-

SUFFIX

-able
-arium
-ary
-er
-ible
-ify
-ologist
-ology
-or
-orium
-ory

BASE

audi
audit
spec
spect
terr
trac
tract
voc
voice
voke



Level 5

PREFIX

a-
ab-
abs-
ad-
di-
dif-
dis-
super-
sur-

SUFFIX

-ate
-ation
-cracy
-crat
-phobe
-phobia

BASE

aqua
chron(o)
cour
cours
cur
curs
dent
dict
duc
duct
grad
gress
hydr(o)
lect
leg
lig
mon(o)

odont
ped
pod
pon
pos
posit
rupt
scrib
script
sed
sess
sid
sol
stru
struct
tempor



Level 6

PREFIX

ambi-
amphi-
ant-
ante-
anti-
circu-
circum-
contra-
contro-
counter-
dia-
ob-
peri-
post-
syl-
sym-
syn-

BASE

am(a)
amat
anthrop(o)
bi(o)
cred
credit
dynam
fac
fact
fect
fic
forc
fort
gen
gener
human
miss
mit
nat
natur

peal
pel
pend
pens
phil(o)
puls
sens
sent
serv
servat
tain
ten
tent
tin
ven
vent
vers
vert
vit
viv



Level 7

PREFIX

con-
e-
ef-
ex-
hypo-
meta-
para-
per-
se-
sub-
tra-
trans-

SUFFIX

-ance
-ancy
-ant
-el
-ence
-ency
-ent
-eous
-(ic)ule
-i(c)le
-il
-ious
-le
-(l)et
-ose
-ous

BASE

audi
audit
bell
bene
bon
cid
cis
clos
clud
clus
dei
divin
found
fund
fus
labor
locut
loqu
luc
lud
lumin
lus
mal(e)
matern

matr(i)
pac
pass
patern
path
pati
patr(i)
photo
plac
scop
sec
sect
spec
spect
spic
tact
tang
tend
tens
tenu
the(o)
tig
ting
tom



Level 8

PREFIX

a-
ad-
an-
di-
dif-
dis-
dys-
epi-
eu-
ev-

BASE

cap	pan(t)
capt	past
ced	pastor
ceed	phon
ceive	solut
cept	solv
cess	strain
clin	strict
cub	string
cumb	trac
fail	tract
fall	treat
fals	trud
fault	trus
fer	ver
greg	voc
lat	vok
neo	volu
nov	volut
omni	volv



Roots Chart

Below is the list of prefixes, suffixes, and bases introduced and explained in *Building Vocabulary from Word Roots*, but not necessarily the focus of the lesson. You will see some overlap of word roots from the list of those explicitly taught—for example, a prefix might be introduced in grade 3, but not explicitly taught until grade 5.

Level 3

BASE

angle
annu
athl
bio
corn(u)
cycl(e)
enni
foc
form
lingu
ocul
ple
plex
ply
son



Level 4

SUFFIX

-crat

BASE

astr(o)

avi

claim

clam

col

cosm(o)

cotta

dose

ec(o)

fess

flat

flect

flex

for

form

fum

fund

fus

gam

ge(o)

ger

geront

gyn

gynec

habit

hal(e)

haute

horr

hypno

i

it

later

lav

libr

lud

lus

magn

main

man

me(a)

medi

meter

metr(o)

mort

mur

nomin

noun

par

pear

petr

pol

polis

sanct(u)

scend

scens

sist

techn

test

verb

via

zo(o)



Level 5

PREFIX

ana-
infra-
infer-
mis-

SUFFIX

-arch
-astery
-estery

BASE

(s)ent
alg
anim
celer
chrom
her
hes
iatr
jur
juris
liter
loc
locat
locut
loqu
man(u)

mast
orth(o)
par
pear
plur
plus
punct(u)
pung
ras
rect
sorb
tac
tact
tang
ton
turb



Level 6

PREFIX

anti-
ant-

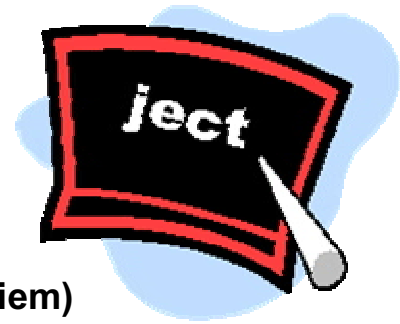
SUFFIX

-(o)logy

BASE

(h)od
act
adelph
aer(o)
ag
agog(ue)
ambul
bell
bellum
bibl
bibli(o)
bol
cardi
ced
centr
cess
dexter
dextr
erg
fact
fect
feit
fend
fens
gnos
hum
l
ig(u)
it

jac
ject
lab
log
m(eridiem)
morph
navig
noc
nox
onym
path
pher
phil
phragm
seps
sept
soph
sta
stanc
stant
stat
stru
struct
theater
theatr
thes
thet
val



Level 7

PREFIX

em-
en-

SUFFIX

-ectomy

BASE

(a)llel
(s)pir
al
alma
am
amat
amor
barbar
caps
cuss
derm
dermat
fit
funct
glob
hor(o)
me(a)
mole
mord

mors
od
par
part
poss
pot
secut
sequ
sit
somm(i)
spir
therm
trop
ventr(i)
vest
vigil
vol
vor



Level 8

PREFIX

SUFFIX

-ella
-cracy
-ist

BASE

angel
annu
anthrop
api
aquil
avi
belli
bov
brev
bys(s)
can
cent
center
centr
class
dec
decim
dem
elephan
enni
fel
hem
hemat
hemer
hemi
hepta
hexa
hydro
kilo
leo(n)
lith
lup
mill

mnem
mne
nihil
non
nov
oct
oct(a)
ov
pathos
penta
phem
phyt
pne
pneum
preci
quadr
quart
quint
semi
sept
sex
stle
stol
sui (swi)
taph
taur
tetra
thanas
thanat
urs
vulp
vulture



A “Roots” Approach to Vocabulary: Insights from Research
Tim Rasinski, Nancy Padak, Rick M. Newton, Evangeline Newton

Why Latin and Greek Roots?

DID YOU KNOW?

In Ancient Rome, school children studied out loud in class. As they learned new words they would sound them out with their **voices**. This is why the English word **vocabulary** (meaning a “list of words”) is built on the Latin word for “voice.” Students took their **vocabulary** quizzes by reciting the words aloud. Even as adults, Romans continued the habit of reading everything out loud. Roman doctors would often order sick patients to give up reading for awhile because their reading would irritate their **vocal cords** and make a sore throat worse! (“**Building Vocabulary from Word Roots,**” Level 4)

- Over 60% of the words students will encounter have recognizable word parts; many of them are derivatives of Latin and Greek roots (Nagy, Anderson, Schommer, Scott, & Stallman, 1989). **School texts have a vast number of words from Latin and Greek roots.**
- Latin and Greek prefixes, bases and suffixes have unique semantic features and consistent orthographic patterns. **Knowledge of these roots links pronunciation, meaning and spelling, especially useful for young readers** (Rasinski & Padak, 2001; Bear, Invernizzi, Templeton & Johnston, 2000).
- **Content area vocabulary (e.g., mathematics, science, literature, technology) is largely of Greek and Latin origin.** Research in content area vocabulary has demonstrated the effectiveness of teaching Greek and Latin word roots, especially for struggling readers (Harmon, Hedrick & Wood, 2005).
- **Many English language learners speak first languages semantically embedded in the Latin lexicon (e.g., Spanish).** Enhancing this natural linguistic connection can accelerate these students’ vocabulary growth (Blachowicz, Fisher, Ogle & Watts-Taffe, 2006).
- Many words from Greek and Latin roots meet the criteria of “tier two” words described by Beck, McKeown, and Kucan (2002) as appropriate for instruction because they are “**high frequency words for mature language users**” (pg. 16).
- **Classroom-based studies have demonstrated the effectiveness of teaching word parts and context clues** (Baumann, Font, Edwards, & Boland, 2005; National Reading Panel, 2000).
- An important goal of vocabulary instruction should be to help students become independent word learners who use research-tested strategies to determine the meaning of new words. Vocabulary instruction should also develop “word consciousness,” an awareness of, interest in, and curiosity about words (Blachowicz & Fisher, 2006; Graves & Watts-Taffe, 2006).
- **Research shows that the study of “roots” gives students the ability to learn many new words independently by helping them make connections among words and word families that are semantically related** (Nagy & Scott, 2000). **Activities that use “roots” for word exploration (etymology) and word play (puns, riddles) also foster “word consciousness”** (Lehr, Osborn & Hiebert, 2004; Newton & Newton, 2005).

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DID YOU KNOW?

From ancient times, many words that describe “school” have used the base “cur-, curs-, cour-, cours.” The Latin word **curriculum**, for example, originally meant a “small race course.” Today we use the word **curriculum** to describe “going” through a series of school **courses** designed with a learning goal in mind. Sometimes we play sports or other **extracurricular** activities that are worthwhile, but “go” “outside” our goals. These words suggest that we often think of learning as a “running” process or race that begins at a starting point and ends at a finish line. (“**Building Vocabulary from Word Roots,**” Level 5)



TIMOTHY RASINSKI, Ph.D.

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fluency
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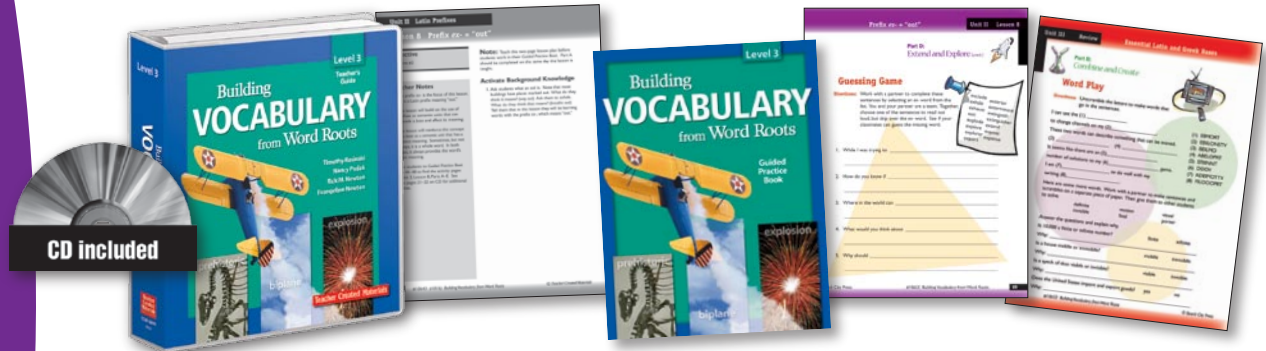
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- **Nancy Padak**, Ed.D., Kent State University, is the Principal Investigator for the Ohio Literacy Resource Center and directs the Reading and Writing Center at Kent State.
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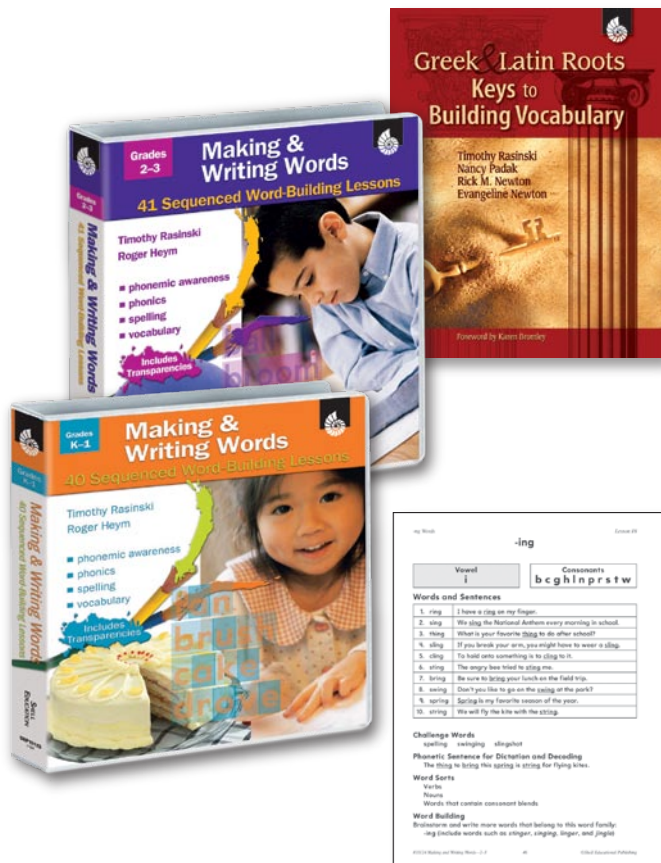
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