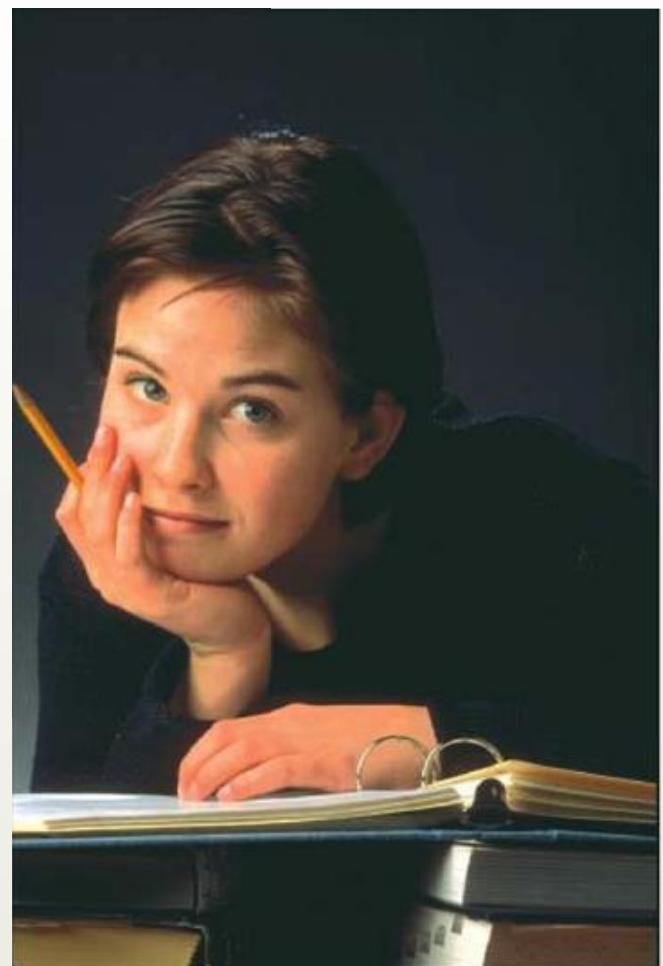


On Target:

Strategies to Build Student Vocabularies

Grades 4 - 12



Dear Educator:

It seems obvious to say that a strong vocabulary contributes to reading comprehension. Yet, frequently as educators—particularly at the middle school and high school levels—we neglect to teach vocabulary in a manner that is explicit and direct for our students. Frequently, we provide students with the vocabulary they need but fail to teach them how to access that vocabulary and make the words their own.

How do students own words? They own the words when they can use words in a variety of ways. When students are able to—and choose to—incorporate new vocabulary into their writing and speaking, then as educators, we can infer that students truly understand the vocabulary and, in fact, own it.

On Target: Strategies to Build Student Vocabularies focuses on these four practices, particularly the first three which are relevant in all content areas. The strategies featured in *On Target: Strategies to Build Student Vocabularies* are ones that teachers say work well in their classrooms. They are strategies that are supported by research and best practice in classrooms.

This booklet is the fifth in a series of *On Target* strategy booklets developed by Technology and Innovation (TIE), a division of Black Hills Special Services, with support from the South Dakota Department of Education.

On Target booklets include the following titles:

- *On Target: Reading Strategies to Guide Learning*
- *On Target: Strategies to Improve Student Test Scores*
- *On Target: Strategies to Help Struggling Readers*
- *On Target: Strategies to Help Readers Make Meaning through Inferences*
- *On Target: Strategies to Build Student Vocabularies*
- *On Target: More Strategies to Guide Learning*
- *On Target: Bringing Writing into Content Area Classrooms*
- *On Target: Strategies That Differentiate Instruction, Grades K-4*
- *On Target: Strategies That Differentiate Instruction, Grades 4-12*

June Preszler
Learning Specialist
TIE

Editorial Credits

Content developer and editor, June Preszler
Contributing editors, Barb Rowenhorst and Jo Hartmann
Content consultant, Nancy Hall
Designers, Gloria Gunn and Becky Fish

The *On Target* strategy booklets are created by TIE with support from the SD Dept. of Education
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Vocabulary Essentials

Barb Rowenhorst, SD Reads

Vocabulary knowledge is the single most important factor contributing to reading comprehension.

— Laflamme, 1997

Vocabulary instruction was identified in 2000 by the National Reading Panel (NRP) as an essential skill students need to improve reading achievement. The NRP identified four types of vocabulary – listening vocabulary, speaking vocabulary, reading vocabulary, and writing vocabulary. Vocabulary, or word meaning, is one of the keys to comprehension. A student reading a list of unconnected words on a page is similar to a struggling student trying to read a narrative text without a general understanding of the words being read. No connections. No meaning. No comprehension.

One way students develop vocabulary is indirectly through reading, listening, and speaking. A student's background knowledge and prior experiences play a large role in vocabulary development. As students build connections between known words and unknown words, they develop a deeper understanding of their reading. Thus, the more experiences children have with reading or being read to before they enter school, the more background knowledge they have to support the understanding of their reading.

Students develop vocabulary when teachers provide direct instruction on the use of effective word-building strategies. Unfortunately, Durkin (1979) found that upper-elementary teachers spent less than 1% of classroom instruction on vocabulary development. Later research studies support those earlier findings with only 6% of time devoted to vocabulary (Scott and Nagy, 1997). Marzano lists eight research-based guidelines for teachers implementing direct vocabulary instruction in his books *Building Background Knowledge* and *Building Academic Vocabulary: Teachers Manual*.

1. Effective vocabulary instruction does not rely on definitions alone. Words should be written in a conversational manner rather than in the more formal dictionary format. If prior exposures to or experiences with a word are lacking, teachers can build the background knowledge through field trips, videos, guest speakers, stories, or current events.
2. Students must represent their knowledge of words in linguistic and/or nonlinguistic ways. Students can draw a picture, create a symbol, or dramatize the word.
3. Effective vocabulary instruction involves the gradual shaping of word meanings through multiple exposures. These include comparing and contrasting, classifying, and creating metaphors and analogies.
4. Teaching word parts (prefixes, root words, suffixes) enhances student understanding of the word.
5. Different types of words require different types of instruction.
6. Students should discuss the terms they are learning through cooperative learning activities.
7. Students should play with words using challenging and engaging vocabulary games.

Vocabulary Essentials (cont.)

8. Instruction should focus on terms that have a high probability of enhancing academic success. Level 1 words are concrete and easy to identify with little or no instruction. Level 2 words appear in text so infrequently that the possibility of learning them in context is slim. Level 3 words are specific to a particular content area. Marzano recommends teaching words in Level 3 (content-related words) rather than those that are seldom encountered during reading.

Students must use a word between six and fourteen times before they are capable of using it independently (Billmeyer, 2001), so they need multiple opportunities to interact with words. Providing direct vocabulary instruction does not have to be boring. That is why this booklet provides several opportunities for teachers to engage students in developing vocabulary knowledge in fun and interactive ways. Once students understand how words work and build a cache of known words, they develop a desire to learn more words and fluency and comprehension improves. Strategies that focus on vocabulary building result in student readers who have greater comprehension.

Developing Effective Practices in Vocabulary Instruction

Teachers Should Increase

- Time for reading
- Use of varied, rich text
- Opportunities for students to hear or use words in natural sentence contexts
- Use of concrete contexts when possible (pictures, artifacts)
- Opportunities for students to use words in meaningful ways
- Opportunities for students to connect new words/concepts to those already known
- Study of concepts rather than single, unrelated words
- Explicit instruction of concepts and incidental encounters with words
- Teaching strategies leading to independent word learning
- Study of words or concepts that will have the biggest impact on comprehension rather than “covering” many words superficially
- Opportunities for making or drawing inferences

Teachers Should Decrease

- Looking up definitions as a single source of word knowledge
- Asking students to write sentences for new words before they’ve studied the word in depth
- Notion that all words in a text need to be defined for comprehension
- Using context as a highly reliable tool for increasing comprehension
- Assessments that ask students for single definitions

Janet Allen

Words, Words, Words: Teaching Vocabulary in Grades 4-12.
Portland, ME: Stenhouse, 1999, 107.

Sources:

Billmeyer, Rachel. *Capturing ALL of the Reader Through the Reading Assessment System*. Omaha: Dayspring, 2001, 117.

Feldman, Kevin, and Kate Kinsella. *Narrowing the Language Gap: The Case for Explicit Vocabulary Instruction – A Scholastic Professional Paper*. New York: Scholastic, 2005, 1.

Marzano, Robert J. *Building Background Knowledge for Academic Achievement: Research On What Works In Schools*. Alexandria, VA: ASCD, 2004.

Marzano, Robert J., and Debra J. Pickering. *Building Academic Vocabulary: A Teacher’s Manual*. Alexandria, VA: ASCD, 2005.

STAR



Providing explicit and direct instruction is one sure way to help students increase their vocabularies. The **STAR** model of Select, Teach, Activate, and Revisit provides a framework for teachers as they plan vocabulary instruction.

SELECT

- Choose appropriate content words.
- Focus on words essential to understanding of the text.
- Draw a story or text map. Using the map as the basis, select four to six words fundamental to retelling or summarizing the text.
- Look for other important words that students are likely to encounter in additional readings, even though these words may not be essential to this particular text.

TEACH

- Consider the processes you will use before, during, and after reading.
- Before assigning the reading, make sure you access prior knowledge and bring to the forefront concepts that will not be clearly explained in the text.
- Use definitional, contextual, and usage information when teaching vocabulary. For example, present the word in context, discuss possible meanings, ask for a definition (provide one if students are unable to provide an accurate definition), ask students to use the words in a personal way.

ACTIVATE

- This step focuses on the work you want students to do in order to gain understanding.
- Use writing assignments and other activities to make sure students repeatedly hear, read, write, and use the targeted words.
- Give students the opportunity to connect new words with other words they already know (word maps or synonym webs).
- Have students act out words or demonstrate meaning.

REVISIT

- Use additional activities to revisit important words. Possible activities include unit reviews, games, writing assignments, vocabulary journals, and word books.

Sources:

Blachowicz, Camille L. Z., and Peter Fisher. "Vocabulary Lessons." *Educational Leadership* (March 2004): 66-69.

Blachowicz, Camille L.Z., Peter Fisher, and Susan Watts-Taffe. *Integrated Vocabulary Instruction: Meeting the Needs of Diverse Learners in Grades K-5*. Naperville, IL: Learning Point Associates, 2005.

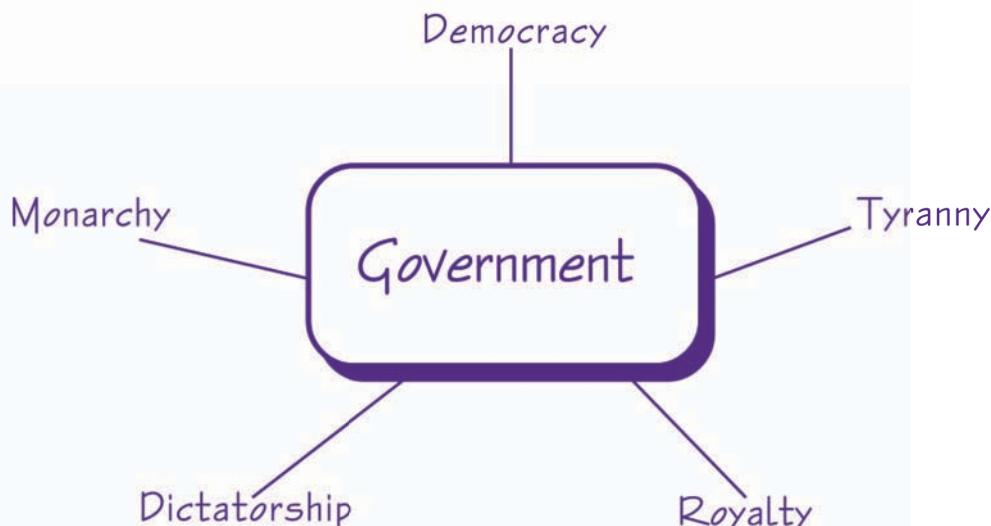
Discussion Starter Web

Discussion Starter stimulates class discussions about vocabulary that relate to a unit, topic, or theme. The discussion web also gives students the opportunity to consider their prior knowledge of the vocabulary terms and concepts.

If student discussions reveal a basic knowledge about the vocabulary term, then quickly review and go to the next word. If students exhibit an indepth understanding of the vocabulary, the teachers may choose to quickly review the topic and then move on to the next topic. If their discussion reveals little or no knowledge of the words, take time to build students' foundational knowledge and vocabulary before instruction. Comprehension is difficult without word knowledge and background information.

Steps:

1. Observe individual student's depth of knowledge as the terms are discussed.
2. Write the topic or unit to be studied in the center of the chart paper or transparency. Words are written on chart paper to create an "anchor" chart that is displayed as a resource throughout the unit of study.
3. Create a web by writing five to six key concepts around the center word.
4. Conceal the words with sticky notes or index cards.
5. Uncover one word and read it aloud. As you reveal the word, comment on connections your mind is making to create understandings and meanings. (See "During Reading: Think-Alouds," *On Target: Reading Strategies to Guide Learning*, 12.)
6. Uncover the remaining cards one at a time. Ask students to think aloud about the word reflecting the process you modeled. Students continue word discussions.



Source:

Robb, Laura. *Teaching Reading in Social Studies, Science, and Math: Practical Ways to Weave Comprehension Strategies into Your Content Area Teaching*. New York: Scholastic, 2003, 204-206.

Frontloading

Frontloading provides rich dialogue and experiences that allow students to develop vocabulary by accessing their prior knowledge *before* reading content. When students have the opportunity to use their prior knowledge, they exhibit an increase in vocabulary and content knowledge. In addition, students show their understanding as they interact with difficult content material.

Steps:

1. Introduce content to students. Ask students to describe experiences or ideas they have regarding the content. Ask students to list words they associate with the content to be studied. For example, if you are beginning a unit of study on the Vietnam Era, ask students to list words they associate with that time.
2. Create a list of content words based on student suggestions and ideas. (Consider using an ABC Alphabet Chart as described in *On Target: Reading Strategies to Guide Learning, Before Reading: Brainstorming Prior Knowledge*, 6-7.)
3. Add to and revise the list of content words as you study the material.

Adaptations:

- When appropriate, include real experiences, videos, field trips, or guest speakers to build prior knowledge of a topic or unit to be studied.
- *Modified KWL*: Use a template for students to list words they think may occur in the reading selection. Have them list why this word might be important and should be included. After reading, have them list what they now think the word means.

Word List for Midwest

Dairy Belt	Illinois	Culture
Badlands	Grant	Corn
Black Hills	Wood	Caves
South Dakota	Agriculture	Canals
Wisconsin	Crazy Horse	Cahokia
Kansas	Plains	Mounds
Missouri	National Parks	Iron
Minnesota	African Americans	Soo Canals
Michigan	Hispanics	Sears Tower
Mississippi River	Export	Model-T Ford
Chicago	Import	Missouri River
	Mount Rushmore	Indiana

Frontloading (cont.)

Modified KWL Chart

Important Words or Phrases *	Why the word is important or related to the topic	Now I think the word means . . .

* Either provide students with a list of the vocabulary words or ask students to create a list of words they consider important.

Sources:

Hoyt, Linda. *Make It Real: Strategies for Success with Informational Texts*. Portsmouth, NH: Heinemann, 2002, 104-109.

Preszler, June, ed. *On Target: Reading Strategies to Guide Learning, Grades 4-12*. Rapid City, SD: Black Hills Special Services Cooperative, 2005, 6-7.

Semantic Feature Analysis

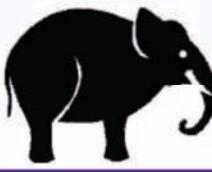
Semantic Feature Analysis (Baldwin, Ford, and Readance, 1981; Johnson and Pearson, 1984) is a strategy to help students understand the meaning of words.

Steps:

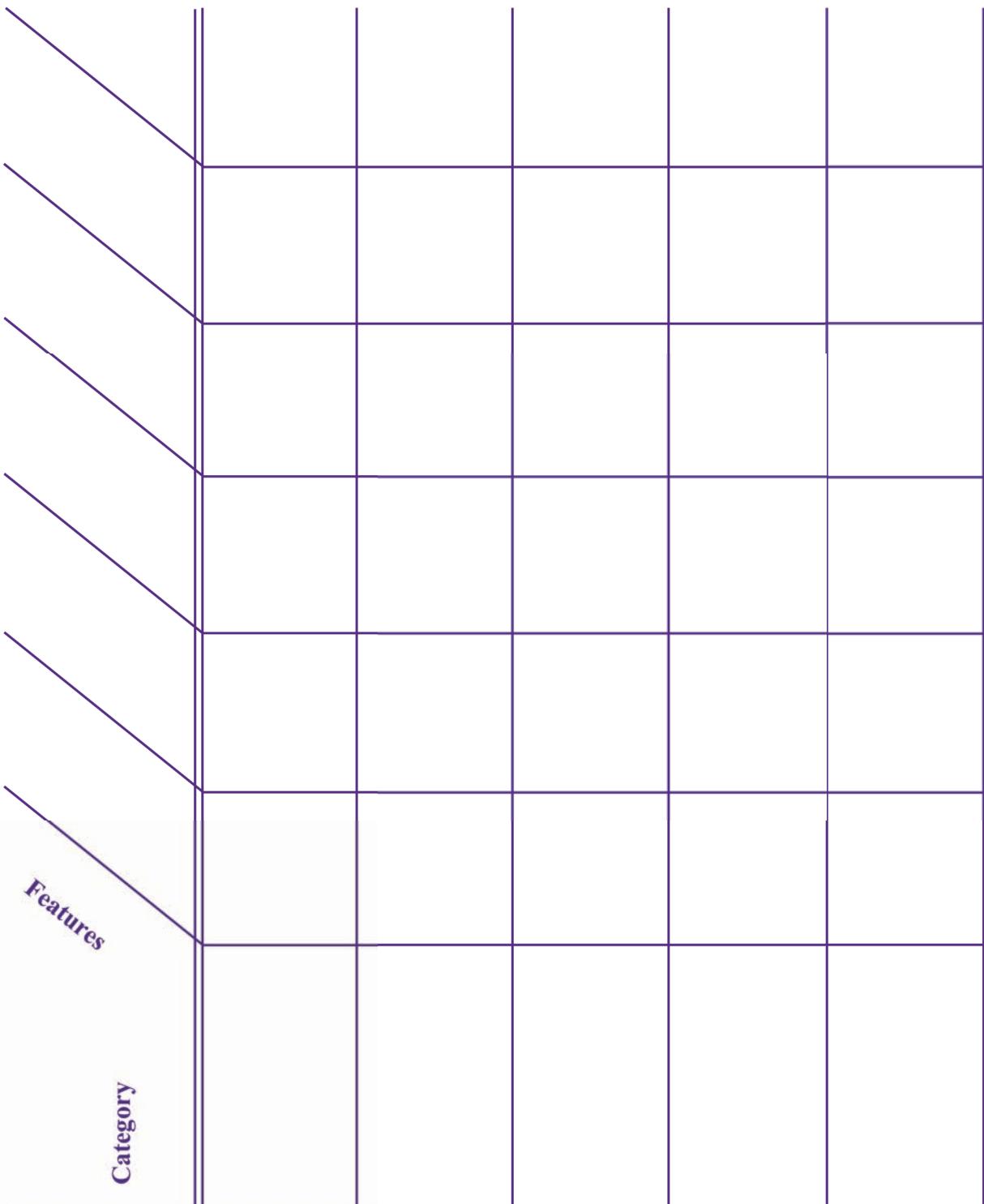
1. On the left side of the matrix, list the words that pertain to a certain category or topic.
2. Ask students to choose features of the words to be listed across the top of the matrix or also choose them prior to the lesson.
3. Tell students to complete the matrix by using a plus sign (+) for features that apply to each word and leaving the space blank if the features do not apply. If unsure, a question mark (?) is used.
4. Facilitate a discussion around the words and features to challenge students' thinking.

Adaptations:

- Use mathematic symbols, formulas, and properties.

	Classification	Where Animal Lives		Disposition	
					
					
					
					
Shark					
Elephant					
Whale					
Sidewinder					
Frog					
Salamander					
Grizzly Bear					
Alligator					

Semantic Feature Analysis



Sources:

Billmeyer, Rachel. *Strategies to Engage the Mind of the Learner: Building Strategic Learners*. Dayspring Printing: Omaha, NE: Dayspring Printing, 2003, 42-45.

Richardson, Judy S., and Raymond F. Morgan. *Reading to Learn in the Content Areas*. Belmont, CA: Wadsworth Publishing Company, 1999, 374-375.

Ask a Question? Jeopardy

Playing games is an innovative way to engage students in learning vocabulary words. Ask a Question is similar to the popular television game show *Jeopardy*.

Steps:

1. Develop a matrix with six columns and six rows. Title the matrix with the unit of study. The top row's cells are labeled with categories that relate to the unit of study. Related content terms are listed below each category. Each cell contains a vocabulary word that correlates with the column's category. (See Weather example on the following page.) The game can be played by using an overhead, blackboard, PowerPoint, or an online resource.
2. Cover cells with a sticky note or other method to hide terms from students. Each cell is labeled with a point amount. (See Weather example below.)
3. Divide students into pairs or teams. Tell each team to designate a speaker. Have the speaker select a category and point amount. Under each point amount is a vocabulary word. Explain that the speaker is to create a definition for the word. The definition must be stated as a question.

Example:

- Word: barometer
 - Question: What instrument measures air pressure?
4. Decide whether a student's question represents an adequate understanding of the term.
 5. Award points if the team speaker answers correctly in the form of a question. At the end of the game, the team with the most points wins.

Weather

TROPICAL STORMS	INSTRUMENTS	LOOK IN THE SKY!	LET'S GET WET	BR! WINTER STORMS	IN A WORD
10 Points	10 Points	10 Points	10 Points	10 Points	10 Points
20 Points	20 Points	20 Points	20 Points	20 Points	20 Points
30 Points	30 Points	30 Points	30 Points	30 Points	30 Points
40 Points	40 Points	40 Points	40 Points	40 Points	40 Points
50 Points	50 Points	50 Points	50 Points	50 Points	50 Points

Sources:

Jeopardy! Wikipedia. 05 May 2006 en.wikipedia.org/wiki/Jeopardy!

Marzano, Robert J., and Debra J. Pickering. *Building Academic Vocabulary: Teacher's Manual*. Alexandria, VA: ASCD, 2005, 54-56.

Ask a Question? Jeopardy (cont.)

Weather Key

TROPICAL STORMS	INSTRUMENTS	LOOK IN THE SKY!	LET'S GET WET	BRR! WINTER STORMS	IN A WORD
hurricane	thermometer	cirrus	condensation	blizzard	advisory
typhoon	barometer	cumulus	Doppler Radar	Nor-easter	almanac
cyclone	hygrometer	cumulonimbus	sleet	lake-effects snow	atmosphere
storm surge	rain gauge	contrails	NEXRAD	avalanche	lightning
Coriolis Force	anemometer	stratus	fog	wind chill	Indian Summer

Ask a Question? Jeopardy

A 6x6 grid of light blue squares with dark blue borders. The grid consists of 36 individual squares arranged in six rows and six columns. Each square is a uniform light blue color and is separated from its neighbors by a dark blue border. The overall pattern is a simple, clean, and geometric design.

Talk Fast - Talk a Mile a Minute

Effective vocabulary instruction includes exposing students to words multiple times using various methods. Talk Fast is a game that increases vocabulary knowledge through word play.



Steps:

1. Give *all* students *all of the categories* being used in each round.
Example: things that are blue, things that you eat, things you wear, and things used at a construction site.
2. Assign (or have the group select) a “talker” to begin the game. Give the talker one category with a list of words fitting that category. (See example below.) The talker role rotates after each category is completed. The other student(s) in the group are the “guessers.”
3. Make sure you give each group category sets equal to the number of students in the group. In other words, if there are four students per group, four category sets are given to each group.

Game Play:

- *Round One:* The talker tries to have his/her team members say each word listed under the category by describing the word in the list “talking a mile a minute.” Descriptions can be words, phrases, or sentences. Students should also avoid using any word that is part of the category title.
Example: A talker giving clues for *recycle* might call out the following clues:
 - “This is what you do when you salvage something so you can reuse it.”
 - “We often do this to plastic.”
 - “Instead of throwing a pop can away, we might do this instead.”
- As soon as the first word is guessed, the talker can move to the next word on the list until the set is completed.
- Time is called after a specified time period (usually one minute), and teams are awarded points for each word guessed.
- *Round Two:* The talker role is passed to the next team member, and Round Two begins with another category and list of words.

Words Associated with Environmental Protection

Greenhouse	Recycle
Ozone	Compost
Pesticides	Conservation
Pollution	Irrigation



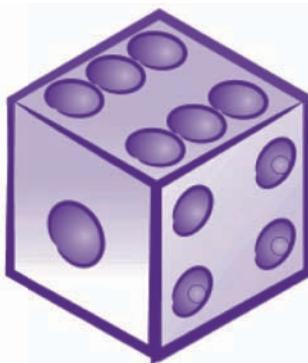
Talk Fast - Talk a Mile a Minute (cont.)

Adaptations:

- **OUTBURST** – A game to purchase or make with categories and lists of words under each category. The game has similar rules as the “Fast Talker.”
- **SCATTERGORIES** – A game to purchase or make which has one category and a letter of the alphabet given to all players (or roll an alphabet die). In teams of three to four, members of a team list as many words as possible that start with the letter that matches the category.

Example:

- Category: Words Associated with the Body
 - Letter Given or Rolled: “B”
 - Words that might be guessed: *blood, brain, bile, bladder*
 - When time is called, teams report out their brainstormed words.
 - Points are given to each team for every word *not* identified by other teams.
- **TABOO** – A game to purchase or make where players name a category based on a description of the “clue giver” but the clue giver can’t say any of the TABOO words in the description! Students are placed in teams with one “clue giver” and the others in the group are “guessers.” The clue giver role rotates after each round. A vocabulary word is given with a list of 4-5 words that *cannot* be used when describing the vocabulary word. The guessers try to guess the word being explained.
Example:
 - Vocabulary word to be guessed: Cliff
 - Words that *cannot* be said in the description: hang glide, mountain, steep, climbing



Sources:

Marzano, Robert J., and Debra J. Pickering. *Building Academic Vocabulary: Teacher's Manual*. Alexandria, VA: ASCD, 2005, 64-66.

OUTBURST. Hersch and Company. Los Angeles, CA: Western Publishing Company, Inc., 1988.

SCATTERGORIES. Milton Bradley. East Longmeadow, MA: Milton Bradley Company, 1988.

TABOO. Milton Bradley. East Longmeadow, MA: Milton Bradley Company, 1989.

Draw It - Pictionary

Students draw pictures as clues to the vocabulary word for team members to correctly identify the term. Draw It is similar to the popular game *Pictionary* where drawings represent ideas or terms.

Steps:

1. Divide the class into teams with three or four students per team. Explain that each team's goal is to be the first in a round to correctly identify vocabulary terms.
2. Designate one student on each team as the artist. This student is the only one able to see the list of words written on the board or overhead.
3. Identify the time limit for the first round of words.
4. Explain that the artist looks at the word to be illustrated and draws a rough sketch of what the word represents. When the word is identified by the group, the artist continues to the next word.
5. Explain that after identifying all of the terms, team members raise their hands indicating the end of the first round.
6. Rotate the artist role around the team until all have participated as an artist.
7. Place students in pairs rather than small groups if time is limited.

Adaptations:

- Students view everyone's drawings following the game to see the different artist renditions of the vocabulary terms.
- Pre-teach the students how to "quick draw" so time isn't spent on detailed drawings.
- Cards with a list of words are given to each student to use when it is his/her turn to be the artist.



Sources:

- Marzano, Robert J., and Debra J. Pickering. *Building Academic Vocabulary: Teacher's Manual*. Alexandria, VA: ASCD, 2005, 62-63.
"Literacy Graffiti." *Read, Write, Think*. 05 May 2006
readwritethink.org/student_mat/student_material.asp?id=23
Pictionary. Milton Bradley. East Longmeadow, MA: Milton Bradley Company, 1993.

After Reading Card Game

The After Reading Card Game is a fun and engaging way to review vocabulary words of a previously read text, chapter, unit, or topic. The fifteen minutes to prepare the deck of cards is time well spent as the students enjoy the game, and the cards can be used in any spare minutes left in a class.

Steps for preparing the deck of cards:

1. Use 12 cards per deck to play the game in about five minutes.
2. Write a vocabulary term on one side of 10 of the cards.
3. On the other side of each card, write a definition that does *not* define the word on the front side. In other words, the word on one side does *not* match the definition on the other side but *does* define a vocabulary term on one of the other cards.
4. Write a vocabulary term on one side of the 11th card but leave the other side blank.
5. Place a definition on one side of the 12th card and place a star on the other side.

Steps for playing the game:

1. Randomly distribute the first 11 cards or have students volunteer to choose a card.
2. Keep the 12th card (definition and star) so a student can begin the game with it.
3. Read the definition on the card, and the student with the word that fits that definition comes to the front of the room and reads his term.
4. Ask the student to turn the card over and read the definition on the reverse side. The student with the term that matches the definition then comes to the front of the room and reads the term.
5. Continue the process until all words and their definitions have been read.

Adaptations:

- Have students call out the word that matches the definitions rather than going to the front of the room.
- Keep track of the time that it takes to complete the game and see if the class can beat the previous time.
- Use names of states and capitals or any other terms that require matching pairs.



Source:

Topping, Donna and Roberta McManus. *Real Reading, Real Writing: Content-Area Strategies*. Portsmouth, NH: Heinemann, 2002, 73-74.

Name That Category - The Pyramid Game

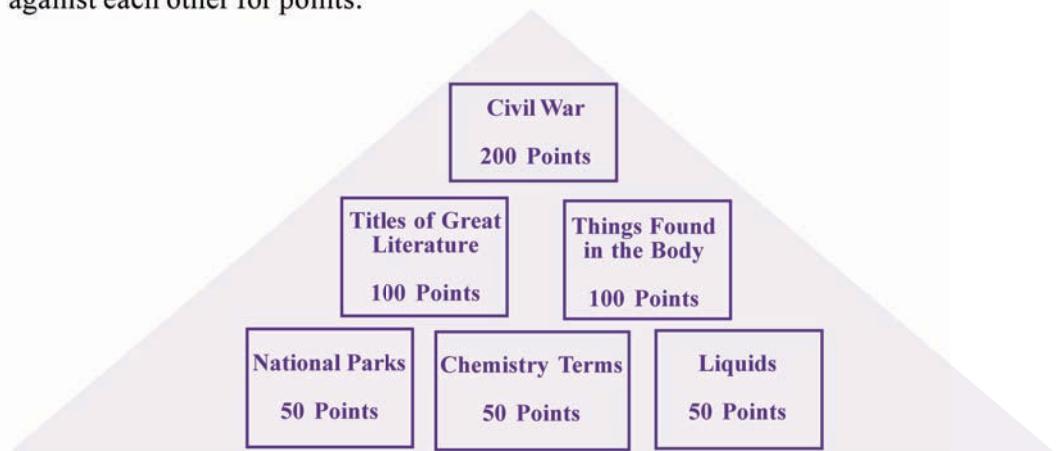
Name That Category resembles the TV game show *\$100,000 Pyramid*. The game helps students determine the common attributes of a list of vocabulary words so they can name the category describing the terms.

Steps:

1. Divide a triangular template into six sections. Assign points to each section.
2. Identify pairs of students and select one student in each pair to begin as the clue giver. Explain that the clue giver is the only one able to see the pyramid template with the categories listed.
3. Cover categories at the beginning of the game. Uncover categories, one at a time, as they are guessed.
4. Explain that as the clue giver gives clues associated with the category listed on the pyramid, the guesser attempts to correctly identify the category. When the guesser is correct, the clue giver moves on to another section of the triangle and repeats the procedure. A time frame of 30 seconds is given to guess each category.
5. Award the guesser the number of points labeled on each section. Award bonus points if all categories are correctly identified.
6. Switch clue giver and guesser roles for each round played.

Adaptations:

- The pyramid template is placed on an overhead and sticky notes are used to cover the category name. Once a *team* identifies the category and notifies you, remove the sticky note for the next category and award points to the team with the correct answer. Once all the categories have been correctly identified, the winning team yells “Pyramid!” and the game stops. Teams are awarded the points they received during each category and another round is started. The clue giver role rotates for every round.
- Other shapes are used instead of the pyramid which may reflect a season, holiday, unit, or theme.
- Teams can beat their previous time in identifying the categories rather than competing against each other for points.



Sources:

- Grant, Richard. “A Lively Vocabulary Game.” *Language Teacher Online*. 15 Jan. 1998. 05 May 2006 archive.org/web/20040216162031/http://langue.hyper.chubu.ac.jp/jalt/pub/tlt/98/jan/sh_grant.html
- Marzano, Robert J., and Debra J. Pickering. *Building Academic Vocabulary: Teacher's Manual*. Alexandria, VA: ASCD, 2005, 59-61.

Name That Category

200 Points

100 Points

100 Points

50 Points

50 Points

50 Points

Crossword Puzzles



Most students enjoy word puzzles. The process of using word puzzles in the classroom has been simplified thanks to a variety of web sites that help teachers construct puzzles. Generally, the internet program constructs the crossword puzzle after the teacher enters the vocabulary words and their definitions.

Steps:

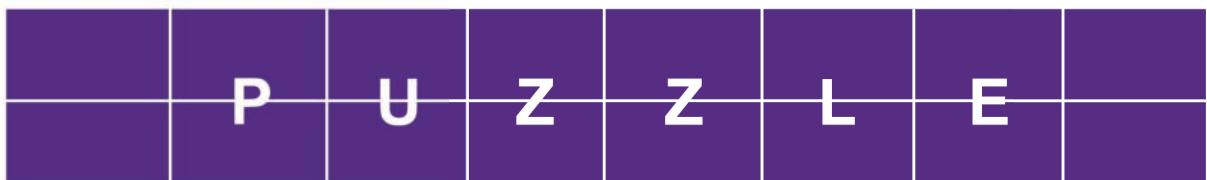
1. Construct puzzles using graph paper and writing the terms across and down then drawing boxes around each of the letters.
2. Number the boxes at the beginning of each word in numerical order – both across and down.
3. List definitions alongside the grid according to the *across* words, then the *down words* are listed.

Adaptations:

- Reverse Crossword Puzzles – For a change of pace, try *reverse crosswords*. The answers for the words going across and down are given and the students write the definition or clues. This can be done in pairs or small groups which enables the students to have rich conversations about the vocabulary words and definitions as they develop clues.

Internet Puzzle Builders:

- Discovery School (Puzzle Maker)
puzzlemaker.school.discovery.com
- Education World (Vocabulary Puzzles, Activities, and Lesson Plans)
educationworld.com/a_lesson/lesson/lesson241.shtml



Sources:

- Richardson, Judy S., and Raymond F. Morgan. *Reading to Learn in the Content Areas*. Belmont, CA: Wadsworth Publishing Company, 1999, 375-377.
- Topping, Donna, and Roberta McManus. *Real Reading, Real Writing: Content-Area Strategies*. Portsmouth, NH: Heinemann, 2002, 75.

Synectic Comparisons

Synectics is a strategy for comparing content to an unrelated object. It causes students to think about vocabulary words in creative ways. In a synectic comparison, the brain has to compare two things that aren't usually compared. In addition, the strategy requires the brain to create pictures as it searches for comparisons. As a result, students are more likely to retain the information.

Steps:

1. Identify vocabulary words or content terms.
2. Provide students with words not related to the content. Students may use these words to create their comparisons.

For example, if the science content term is *comet*, you might provide students with the following options:

Toaster Speed boat Ice cream cone Stallion

3. Create an example to model the synectic.

A comet is like a _____ because _____.

A comet is like a toaster because it burns very hot.

4. Share your example with the class. Explain your logic or thinking for the comparison. Give students the opportunity to list additional ways that a comet might be like a toaster.
5. Ask students to create their own comparisons. Students may work in teams or pairs. Allow students to select from the comparison options you've provided or to select their own objects for comparison.
6. Direct students to create a graphic illustration to accompany their synectics.

A comet is like a **toaster** because it **burns very hot**.



7. Direct small groups to share their creations with the class.

Adaptations:

- Assign different vocabulary words or terms to student teams. Each team is responsible for “teaching” the assigned term to the rest of the class.
- Ask students to write a paragraph to accompany the graphic. The paragraph should explain in more detail “how” the two items are related with specific examples.

Sources:

Billmeyer, Rachel. *Strategies to Engage the Mind of the Learner: Building Strategic Learners*. Omaha: Dayspring Printing, 2003, 186.

Gordon, William J.J. *Synectics*. New York: Harper & Row, 1961.

Synectics: A Brainstorming Tool. 05 May 2006

edweb.sdsu.edu/Courses/ET650/OnLine/MAPPS/Synectics.html

Wellman, Bruce, and Laura Lipton. *Data-Driven Dialogue: A Facilitator's Guide to Collaborative Inquiry*. Sherman, CT: MiraVia, 2004, 112-113.

Word Sorts

Word Sorts help students analyze words by looking for patterns. Grouping words according to similar attributes is an effective *Before Reading* strategy that activates prior knowledge of vocabulary words or phrases. It is especially useful for nonfiction material.

The classifying or sorting can be done as an *open or closed sort*. In a *closed sort* students organize vocabulary words into predetermined categories developed by the teacher. In an *open sort*, students determine the categories. Robert J. Marzano lists classifying as one way to provide students with multiple exposures to words to help shape word meanings.

Steps:

1. Select words that are important to a unit or topic of study.
2. Prepare cards with identified words. Older students can make their own cards and write the words given from a list.
3. Direct students to sort or classify the words according to the closed sort determined by the teacher or an open sort where students sort the words into categories that make sense to them.
4. Allow students to work in small groups or pairs.

Adaptations:

- Words can be categorized into story elements: character, setting, problem solution, etc.
- See “*Talk Fast*” for turning the categorizing into game formats similar to popular parlor games of *TABOO*, *OUTBURST*, and *SCATTERGORIES*.
- Wordstorming – brainstorming words to sort related to a topic.
- Categorize words into “I know,” I sort of know,” and “I don’t have a clue.” Students assist each other if they know the definition of some of the words team members place in their last two columns.
- Select a list of words and/or phrases that are important to understand. Include some familiar words to ensure success. Make cards with a word or phrase on each one. In pairs, students pair the cards that seem to go together and then write a sentence using the vocabulary pair. As students become comfortable with the process, sorting can increase to a three-card match. As students read the selection, they have some background knowledge of the vocabulary they will encounter.
- Prior to reading, ask students to predict what the selection is going to be about and write a prediction statement or write questions they have about the topic based on the list of words.
- Ask students to rearrange words following the reading as their understanding of the meaning of the word(s) may have changed.

Word Sorts (cont.)

In an *open* sort, students sort and label the terms listed below. They can add words to their categories once they have established the headings.

Deserts	Mountains
Oceans	Rivers
Bays	Coves
Plateau	Plains
Hills	Prairie
Canyons	Forests
Bluffs	Flatlands
Reservoir	Canals
Stream	Creek
Cliff	Cathedral Spires
Lake	Pond
Salt Flats	

Categories selected may include but are not limited to the following:

1. By land or water
2. By topography
3. By size
4. Alphabetically
5. By regions of the USA (Coastal or Inland)

Sources:

- Barton, Mary, and Clare Heinemann. *Teaching Reading in Mathematics: 2nd Edition*. Aurora, CO: McREL, 2002, 86-88.
- Billmeyer, Rachel. *Strategies to Engage the Mind of the Learner: Building Strategic Learners*. Dayspring Printing: Omaha, NE: Dayspring Printing, 2003, 57-58.
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- Cunningham, Patricia M. *Phonics They Use*: 4th Edition. New York, NY: Pearson Education, Inc., 2005, 81-82.
- Hoyt, Linda. *Make It Real: Strategies for Success with Informational Texts*. Portsmouth, NH: Heinemann, 2002, 114-117.
- Marzano, Robert J., and Debra J. Pickering. *Building Academic Vocabulary: Teacher's Manual*. Alexandria, VA: ASCD, 2005, 47-48.
- Preszler, June, ed. *On Target: Reading Strategies to Guide Learning: Grades 4-12*. Rapid City, SD: Black Hills Special Services Cooperative, 2005.
- "Vocabulary Sort." *The Teachers Desk*. 05 May 2006 teachersdesk.org/vocabsort.html

Vocabulary Notebooks/Journals



Individual vocabulary notebooks invite students to strengthen their word knowledge and internalize meaning for use throughout their lives. Robert J. Marzano, in his book *Building Academic Vocabulary: Teacher's Manual*, suggests using tabs in the booklets to note different subjects or topics. Having a dictionary definition is insufficient according to Marzano. He explains that dictionary definitions are not written in conversational language. As a result, students are unable to internalize meaning.

Dictionary definitions may be more helpful after a basic understanding of the word's meaning is established. Marzano recommends that words be defined using "student friendly" language. He suggests including a nonlinguistic representation of the word or its meaning whenever possible.

Steps:

1. Direct students to identify unknown words, confusing words, or interesting words while they read and discuss a unit or topic. As students identify words, they write them in their vocabulary notebook.
2. Require students to list the exact sentence in which the word appears in the text.
3. After students have written the text definition, ask them to create definitions using their own words (not a dictionary definition).

Adaptations:

- Consider assigning students to include a list of antonyms or synonyms.
- Assign students to include a picture, drawing, or symbol, if appropriate.
- *Words in the News*: Assign students to make a list of vocabulary words from a newspaper, magazine, or other current event resource. Then students choose one or more of the words that are of interest to them to include in their journal and why they chose it.
- Refer to *On Target: Strategies to Guide Student Learning*, During Reading: Concept Definition Map, Pages 14-15.
- *Word Dictionary*: To help students develop a deeper understanding of a topic or unit, assign them to make a list of words that may relate to the broad topic or unit. The students place the words in alphabetical order and then define the words. A picture or guide words may also be included.

Vocabulary Notebooks

Word & Page Number: <i>labyrinth</i> . pg. 11	Resource: <i>Name of a Text</i>	
Sentence in which the word was used in the text: <i>Behind the castle was a labyrinth of hedges in which to hide from suspicious eyes.</i>		
Student Friendly Definition: <i>A maze – like a maze of bushes or plants or like a maze in design.</i>		
Antonyms	Synonyms <i>Maze</i>	Picture/Drawing/Symbol

Vocabulary Notebook

Word & Page Number:	Resource:	
Sentence in which the word was used in the text:		
Student-Friendly Definition:		
Antonyms	Synonyms	Picture/Drawing/Symbol

Sources:

- Billmeyer, Rachel, and Mary Lee Barton. *Teaching Reading in the Content Areas: If Not Me, Then Who?* Aurora, CO: McREL, 1998, 88.
- Hoyt, Linda. *Revisit, Reflect, Retell: Strategies for Improving Reading Comprehension*. Portsmouth, NH: Heinemann, 1999, 152-153.
- Marzano, Robert J., and Debra J. Pickering. *Building Academic Vocabulary: Teacher's Manual*. Alexandria, VA: ASCD, 2005, 14-30.
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Magic Squares

Vocabulary comes alive when using Magic Squares. The Magic Squares strategy can be applied at every grade level K-12. The strategy makes matching more interesting and interactive for students. Magic Squares began in China several thousands of years ago. Squares are assigned numbers which, when added across, down, or diagonally always equal the same sum.

Steps:

1. Direct students to match a lettered column of words to a numbered column of definitions.
2. Make sure letters on each square of the grid match the lettered words.
3. Explain that students find the magic number by matching the correct word and definition and entering the number in the appropriate square on the grid.
4. Use any number of squares for the puzzle.

Magic Square

Magic Squares (cont.)

Illustration A represents a completed Magic Square based on the vocabulary for comprehension strategies shown in Illustration B.

A	B	C
3	8	1
D	E	F
2	4	6
G	H	I
7	0	5

Magic number equals 12

Illustration A

Illustration B

- | | |
|---|---|
| <ul style="list-style-type: none">A. To get a picture in your mind.B. Ways to make connections.C. What you do when you don't understand.D. To wonder.E. To read between the lines.F. To find the main idea and/or details.G. Book to help with definitions.H. To change your understanding as you continue to read.I. Words with meaning. | <ul style="list-style-type: none">0. Synthesize1. Reread2. Question3. Visualize4. Infer5. Vocabulary6. Determining Importance7. Dictionary8. Text to self, text, and world. |
|---|---|

Source:

Richardson, Judy S., and Raymond F. Morgan. *Reading to Learn in the Content Areas*. Belmont, CA: Wadsworth Publishing Company, 1999, 380-381.

Connections to Previous On Target Books

Good readers tend to have a strong command of words. They break words down, apply them differently depending on context, and recognize shades of meaning. As a result, several of the strategies addressed in previous *On Target* booklets provided instructors with ideas and tools to increase student vocabulary skills.

On Target: Strategies to Guide Student Learning

Before Reading: Word Splash, Page 9

Word Splash helps students access prior knowledge of words, build meaning for the words related to the concept, and find repetition of key ideas important to the new unit of study.

During Reading: Concept Definition Map, Pages 14-15

Students use the Concept Definition or Word Map strategy to read unfamiliar words and build vocabulary.

During Reading: Word Sorts, Pages 20-21.

Word Sorts are simple small group activities. They help students understand key words from a reading selection. Students identify meaning and properties of words before sorting the list into defined groups.

On Target: Strategies to Improve Student Test Scores

Vocabulary and Test Scores, Page 18.

Standardized tests have as much to do with vocabulary as they do with content understanding. According to Kendra Wagner, Seattle Pacific University, vocabulary makes up 75 percent of comprehension. Wagner says if a student doesn't understand three to five words on a text page, comprehension is inhibited.

On Target: Strategies to Help Struggling Readers

During Reading Bookmarks, Pages 15-16.

Students use a bookmark to note important or interesting information or words. Two of the listed options in using bookmarks for vocabulary words are “Mark My Words” and “Mark the Bold/Talk the Bold.”

On Target: Strategies to Help Readers Make Meaning through Inferences

Traditional Cloze Techniques, Page 5

Based upon the psychological theory of *closure* (Taylor, W.L. 1953), the cloze procedure was subsequently developed as a tool for many aspects of reading. The cloze theory suggests that a person attempts to complete any pattern that is not complete.

Making Inferences with Figurative Language, Page 18.

While generally associated with literature, figurative language is not exclusive to that genre. Authors often use similes, metaphors, or personifications to describe something by comparing it to an experience common to most people.

Websites to Explore

Discovery Schools Puzzlemaker
puzzlemaker.school.discovery.com/

ESL Flow: Vocabulary
eslflow.com/vocabularylessonplans.html

Educators Reference Desksm
eduref.org/

Education World®: The Educator's Best Friend
educationworld.com

Guide to Grammar and Writing: Building a Better Vocabulary
grammar.ccc.commnet.edu/grammar/vocabulary.htm

Learning Vocabulary Can Be Fun!
vocabulary.co.il/

Literacy Matters: Teachers
literacymatters.org/content/readandwrite/vocab.htm

Read Write Think (IRA, NCTE, MarcoPolo)
readwritethink.org

Reading Quest—Strategies for Social Studies
literacymatters.org/content/readandwrite/vocab.htm

Star Tower
mape.org.uk/startower/menu.html

Teachnology: The Online Teacher Resource—Vocabulary
teach-nology.com/teachers/lesson_plans/language_arts/vocab/

The Teacher's Desk
teachersdesk.org/

Vocabulary University®
vocabulary.com

Wacky World of Words!
web.archive.org/web/20041010230510/www3.telus.net/teachwell/mystpage.htm

Web English Teacher: Vocabulary
webenglishteacher.com/vocab.html

For Further Reading

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- Cunningham, Patricia M. *Phonics They Use*. 4th ed. New York, NY: Pearson Education, 2005.
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- Graves, Michael F. *The Vocabulary Book: Learning and Instruction*. New York: Teachers College Press, 2005.

For Further Reading (cont.)

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- Olson, Amy E. *Academic Vocabulary*. New York: Pearson Education, 2006.
- Paynter, Diane E., Elena Bodrova, and Jane K. Doty. *For the Love of Words: Vocabulary Instruction That Works, Grades K-6*. San Francisco: Jossey-Bass, 2005.
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Technology & Innovation in Education

1925 Plaza Boulevard
Rapid City SD 57702
(605) 394-1876

tie.net

