The Common Core Classroom

Shift 3: Academic Vocabulary

During the last couple of weeks, we have examine the importance of effective vocabulary instruction in the classroom. Some of the traditional strategies of teaching vocabulary have proved to to be ineffective. Highlighted in blue is key piece of research that was put together Beverlee Jobrack for STEM in an article entitled, *Developing Academic Vocabulary.*

There are an estimated 88,500 words in printed school English (Nagy and Herman 1984). It is impossible teach each one through direct instruction, nor would that be effective or efficient. Some strategies, however, are more effective than others. Strategies that are *not* effective include the following (Stahl and Fairbanks 1986):

1. Looking up definitions (in the absence of other strategies).
2. Providing only one or two exposures to a word.
3. Drill-and-practice methods of instruction that involve multiple repetitions of the same type of information.

What does it mean to know a word?

One can know a word deeply, superfically, or not at all. A knowledge continuum might include these kinds of stages (Beck, McKeown and Kucan 2002).

1. Never heard or saw the word before.
2. Heard or saw the word and know that it is related to a particular topic or concept.
3. Heard or saw the word and have a general sense of what it means.
4. Have a narrow contextual understanding of a word.
5. Has a rich knowledge of a word's meaning and how it relates to other words with similar meanings, roots, or affixes.

6. Can recall or use a word in specific contexts.

7. Know of multiple meanings of a word.

8. Can apply a word correctly and recognize inappropriate use.

9. Use the word naturally in thinking, writing, and talking.

Creating an Interactive Word Wall from the Georgia Department of Education

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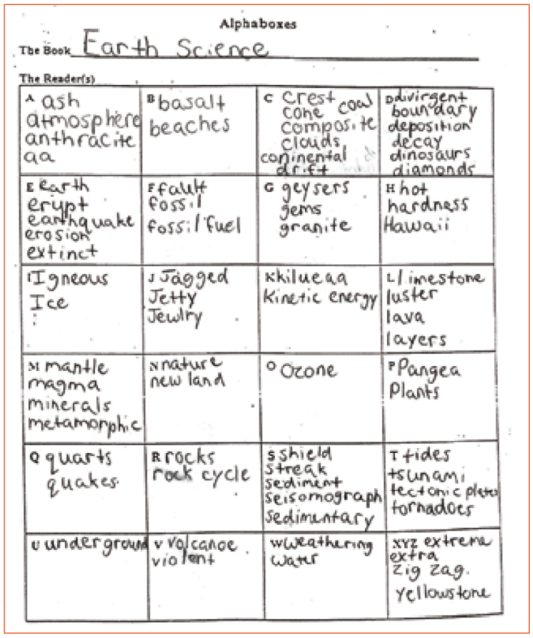
10. Has a rich knowledge of a word's meaning and how it relates to other words with similar meanings, roots, or affixes.

11. Has deep knowledge of a word. Can conjugate forms and use it appropriately in figures of speech, such as puns, metaphors, and understand its use in idiomatic expressions.

Strategies That Work:

These strategies are brought to you by William P. Bintz in his article, *Teaching Vocabulary Across the Curriculum*.



Alphaboxes

The Book Earth Science

The Reader(s)

A ash atmosphere anthracite aa	B basalt beaches	C crest coal cone composite clouds continental drift	D divergent boundary deposition decay dinosaurs diamonds
E earth erupt earthquake erosion extinct	F fault fossil fossil fuel	G geysers gems granite	H hot hardness Hawaii
I igneous Ice	J jagged Jetty Jewlry	K kilueaa Kinetic energy	L limestone luster lava layers
M mantle magma minerals metamorphic	N nature new land	O Ozone	P Pangea Plants
Q quarts quakes	R rocks rock cycle	S shield streak sediment seismograph sedimentary	T tides tsunami tectonic plates tornadoes
U underground	V volcano violent	W weathering water	XYZ extreme extra zig zag. Yellowstone

mountains	hot spent vent	Earth's crust
sandblasting	Earth's climate	faults
underwater mountains	steam	collide
heat and pressure	glaciers	sedimentary rock
deltas	magma	cinders and ash
fault-block mountains	folds	growing mountains
continents drift	dissolve	erosion
volcanoes	lava	plates
mountains slow dance	erosion mountain	plateaus
folded mountains	ranges	eruption

Alphablocks

Alphaboxes (Hoyt, 1998) is a strategy that uses the 26 letters of the alphabet to record important concepts about a specific topic or theme. Figure 1 illustrates one example of an alphabox for a unit integrating literacy and earth science. Throughout the unit, students read a variety of texts and record important concepts on earth science on their alphaboxes sheet.

Word Sorts

Word sorts for expository text act as a companion to the word sort strategy used with nonfiction text (Hoyt, 2002). This strategy involves a collection of words and phrases from an expository text with each word or phrase written on an index card. Students review the cards, develop possible categories, name each category, and rearrange cards in the appropriate categories. The teacher should remind students that categories need to reflect relationships between words and phrases and that students need to explain these relationships. Students then use categories to make predictions about the expository text. Students can ask themselves: What might be the title? What might be the theme? What will this text be about? Students then read the selection and, after reading, rearrange the cards and create new categories so they can more accurately retell and discuss the selection. Figure 6 illustrates a word sort for expository text in science based on the trade book *Mountain Dance* (Locker, 2001).

People's knowledge of any topic is encapsulated in the terms they know that are relevant to the topic. For example, people who know a great deal about snow skiing understand terms such as fall line, snow plow, corn snow, unweight, powder, packed powder, green slope, blue slope, black slope, mogul, carving, and face-plant. Likewise, students who understand the content in their state mathematics standards document regarding data analysis and statistics have an understanding of terms such as mean, median, mode, range, standard deviation, and central tendency. The more students understand these terms, the easier it is for them to understand information they may read or hear about the topic. On the other hand, without a basic knowledge of these terms, students will have difficulty understanding information they read or hear (Marzano and Pickering 2005).

Anticipation guides

An anticipation guide is also a before-, during-, and after-reading strategy. It is particularly suited for use with nonfiction and reference texts, such as textbooks (Merkley, 1997). This strategy highlights the importance of anticipating meanings of a text before reading, thinking and rethinking these meanings during reading, and reflecting and taking a position on confirmed meanings after reading.

Figure 7 illustrates an anticipation guide on the topic of congruent angles in mathematics. This guide includes nine statements about the nature and function
of congruent angles. Some of these statements are mathematically correct, others are not. Before reading a chapter on this topic, students respond to each statement by recording an A (agree) or D (disagree) in the "response before reading" column and share their responses with others. Students then read to a predetermined point in the selection, such as halfway. At this point, students respond to each statement again in the "response during reading" column and share why they continue to either agree or disagree with the statement, or why they have changed their minds. They can also share evidence from the text that supports why they have changed their minds. Students finish reading and respond to each statement again in the "response after reading" column and discuss their position on each statement. As a culminating event, students can add additional statements they feel are important for learning congruent angles but were not included in the original list.

Anticipation Guide for Congruent Angles

Instructions: Before we discuss the next chapter on congruent angles, think about what you learned earlier about congruency and the function of angles. Then, respond to each statement three times: once before reading, once during reading, and once after reading.

_____ Write A if you agree with the statement.

_____ Write D if you disagree with the statement.

Response Before Reading	Topic: Congruent Angles	Response During Reading	Response After Reading
	1. If two angles are complements of congruent angles (or the same angle), then the two angles are congruent.		
	2. Vertical angles are not congruent.		
	3. Congruence can be determined by laying one triangle on top of another.		
	4. If two angles are supplementary, the sum of their measures is 360 degrees.		
	5. If two lines are perpendicular, they meet at right angles.		
	6. If two lines do not intersect, they are parallel.		
	7. We can tell an isosceles triangle by the sum of its angles.		
	8. An equilateral triangle has two congruent sides and a right angle.		
	9. The sum of the measures of the interior angles of a triangle is 360 degrees.		
	10.		
	11. *(Include several blank spaces for students to add statements.)*		
	12.		