

Selecting Vocabulary Words

- Before instruction, preview the text, even when using text that has preselected vocabulary words.
- Read the passage and identify vocabulary you think students will find unfamiliar. Ask yourself: “How difficult is this passage to understand?”
- Select words that are important to understanding the text.
- List words you predict will be challenging for your students. You may not be able to teach all of these words. Research supports teaching only a few words before reading.
- Determine which words are adequately defined in the text. Some may be defined by direct definition and others through context. Expand on these words after reading, rather than directly teaching them before reading.
- Identify words students need to know to construct meaning in text that contain prefixes, suffixes, and base or root words. Point these out to students and discuss features.
- Consider students’ prior knowledge. Words can be discussed as you activate and build prior knowledge. Words can also be extended.
- Determine the importance of the word. Ask yourself: “Does the word appear again and again? Is the word important to comprehending the passage? Will knowledge of the word help in other content areas?”
- Remember, words taught before students read include:
 - words that will be frequently encountered in other texts and content areas.
 - words important to understanding the main ideas.
 - words that are not a part of your students’ prior knowledge.
 - words unlikely to be learned independently through the use of context and/or structural analysis.

Adapted from Cooper, J. D. (1997). Literacy: Helping children construct meaning (3rd ed.). Boston: Houghton Mifflin.

What To Do About the Complexity of Word Knowledge: Explicit Instruction of Specific Words

Although students gain most of their word knowledge through wide reading, explicit instruction of specific words and their meanings also can contribute greatly to their vocabulary development. Explicit instruction is especially important for students whose exposure to the vocabulary of literate English is limited. To be most effective, explicit vocabulary instruction should be dynamic and involve a variety of techniques. Specifically, instruction should:

- 1 Use both definitional and contextual information about word meanings,**
- 2 Involve students actively in word learning, and**
- 3 Use discussion to teach the meanings of new words and to provide meaningful information about the words.**

1. Use definitional and contextual information. In the past, vocabulary instruction most often consisted of learning lists of words and definitions (with a test on Friday). We now know that such instruction is of limited value, particularly in improving students' reading comprehension.⁴¹ Students need to know how a word functions in various contexts. Therefore, instructional methods that provide students with both definitional and contextual information do improve comprehension, and do so significantly.

Some instructional activities that provide students with definitional information include:

- **Teach synonyms.** Often a synonym is all students need to understand a new word in context.
- **Teach antonyms.** Not all words have antonyms, but thinking about antonyms requires students to identify the crucial aspects of a word. For example, the word chaos implies an abyss, a void, or clutter, but its antonym, order, narrows the focus to the "clutter" part of the word's meaning.
- **Rewrite definitions.** As we noted earlier, dictionary definitions can often confuse or mislead students. Asking students to restate a dictionary definition in their own words can be more effective than requiring them to remember the exact wording of the definition.
- **Provide example sentences.** A good way to ascertain whether students understand a word's definitions is to have them provide example sentences in which they use the word. They may draw these examples from personal experiences ("Mom's kitchen is chaos.") or from textbooks ("After the great flood of 1937, there was chaos all over the Tennessee Valley.").

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⁴¹ Stahl, S. A., & Fairbanks, M. M. (1986). *The effects of vocabulary instruction: A model-based meta-analysis*. *Review of Educational Research*, 56, 72-110.

- **Provide non-examples.** Another way to find out if students truly understand the meaning of a new word is to have them supply words that are not examples of the word's meaning. For example, point out to them that *cry* is not an example of the word *guffaw*, then ask them to think of other non-examples of the word (*bawl*, *sniffle*, *whine*, *whimper*). Coming up with non-examples requires students to think about the critical attributes of a word, much like providing antonyms.
- **Discuss the difference between the new word and related words.** A discussion of the word *debris*, defined as "trash," "garbage," or "waste," might include a discussion of the differences between *debris* and *trash*, *garbage*, and *waste*. For example, *debris* might be the result of some sort of accident or disaster, whereas *trash* might include anything. *Garbage* generally refers to organic material, such as food leftovers, and *waste* implies something left over, rather than something resulting from a disaster. Such a thorough discussion encourages students to focus on the meanings of words.

Some activities that provide students with contextual information include:

- **Have students create sentences that contain the new word.** Encourage students to create sentences that show a clear understanding of the meaning of the word—not just "I like chaos." More acceptable sentences are those that include the definition, such as, "Chaos is when everything is in disorder." Even more acceptable are sentences that extend the definition, such as, "The scene was complete chaos—desks were turned over, paint was splashed on the floor, and the trashcan was upside down." Of course, to write sentences containing a new word, students need examples of how it is used correctly. Definitions, even those that give brief examples, rarely provide enough information to guarantee that students have a real sense of how words are used. One way to scaffold students' use of new words is to have them complete sentence stems containing the word, e.g., "John thought it would pacify the teacher if..."⁴²
- **Use more than one new word in a sentence.** Asking students to use more than one new word in each sentence they create can force them to look for relations among words.
- **Discuss the meaning of the same word in different sentences.** Many words have multiple meanings, which depend on the context in which the words appear. To prevent students from limiting word meanings to one particular context, have them use a new word in several different and varied sentences. For the word *chaos*, their sentences might include topics such as chaos in classroom behavior, chaos as clutter and mess, chaos in personal relations, and so forth.
- **Create a scenario.** Invite students to make up a story in which a new word features prominently. If students are too young for this activity, have them draw a picture story for a new word.

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⁴² Beck, I. L., Perfetti, C. A., & McKeown, M. G. (1982). Effects of long-term vocabulary instruction on lexical access and reading comprehension. *Journal of Educational Psychology*, 74(4), 506-521.

- **Create silly questions.** You might have students pair new words and use each pair to make a silly question.⁴³ For the words *actuary*, *hermit*, *philanthropist*, and *villain*, their questions might include “Can an actuary be a hermit?” “Can an actuary be a philanthropist?” “Can a philanthropist be a hermit?” “Can a philanthropist be a villain?”

2 Involve students actively in word learning. Students remember more when they relate new information to known information, transforming it in their own words, generating examples and non-examples, producing antonyms and synonyms, and so forth.

Instruction That Works

In one study of exemplary vocabulary instruction, activities were conducted in a five-day cycle. On the first day, the new words were defined, and students discussed the use of each word in context. This discussion took different forms, including discussion of examples and non-examples, pantomimes, and having students say “Yay” if the word was used correctly in a sentence and “Boo” if it was not. On the second day, after a review of the definitions, students might work on log sheets, completing sentences for each word. On the third day, they completed another log sheet, then worked on a timed activity in which pairs of students attempted in the shortest amount of time to match words with their definitions. This activity was repeated on the fourth day. After completion of the second timed activity, students were asked silly questions. On the fifth day, they took a post-test.

These activities varied somewhat with different units. For example, students also completed a “Word Wizard” chart activity each day. A Word Wizard chart is a chart that contains new vocabulary words. These words can be taken from a storybook, from a text, or just be words that are encountered in some way. Every time a child in the class found one of these words in context, the teacher attached an adhesive note with the child’s name and the context next to the word. The first child who received 5, 10, or some other number of notes became the Word Wizard. Students were given credit toward becoming a “Word Wizard” by finding examples of each word used outside of class.

This program, or variations of it, significantly improved students’ comprehension of texts containing words that were taught. As part of the program, it was revealed that twelve encounters with a word reliably improved comprehension, but four encounters did not. The instructional approach, which involved active processing of each word’s meaning, had significantly greater effects than did a definition-only approach on measures of comprehension but not on measures involving the recall of definitions. These findings suggest that vocabulary instruction can improve comprehension, but only if the instruction is rich and extensive, and includes a great many encounters with to-be-learned words.

⁴³ Beck, Perfetti, & McKeown, (1982).

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3 Use discussion to teach word meanings. Discussion adds an important dimension to vocabulary instruction. Students with little or no knowledge of some new words they encounter in a vocabulary lesson are often able to construct a good idea of a word's meaning from the bits of partial knowledge contributed by their classmates. (When the class as a whole does not know much about a particular word, however, you may have to help. Perhaps supplying some information about the word, such as a quick definition.)

Discussion can clarify misunderstandings of words by making the misunderstandings public. For words that a student knows partially, or knows in one particular context, the give-and-take of discussion can clarify meanings. When misunderstandings are public, the teacher can shape them into the conventional meaning.

Discussion involves students in other ways. As they wait to be called on, students practice covertly, or silently prepare a response. Therefore, even though you call on only one student, many other students anticipate that they will have to come up with an answer. As a result, discussion leads to increased vocabulary learning.⁴⁴ Without the practiced response, discussion is not likely to be valuable as a learning experience.

Bringing Instruction Together: A Sample Lesson

This sample lesson illustrates how a teacher can bring together the three components of explicit vocabulary instruction to teach words that are key to understanding the story *The Talking Eggs* by Robert San Soucil. The words chosen for instruction are *backwoods*, *contrary*, *dawdled*, *groping*, *rubies*, and *silver*.⁴⁵

For the key word *backwoods*, read the following sentence from the story: "Then the old woman took her by the hand and led her deep into the backwoods." Ask students to predict what *backwoods* means. *Backwoods* is a compound, and, when the information from the word parts is combined with some information from the context, its meaning should be fairly clear. Next, ask students to describe the backwoods briefly.

The key word *contrary* can be taught the same way, beginning with reading this sentence from the book: "You do as I say and don't be so contrary," and asking students to predict the meaning of the word from context. For this word, have students discuss a definition for the word, such as "disagreeable, raising objections," and encourage them to explain how the definition fits in the context of the sentence. As a follow up, you have them create some sentences that contain *contrary*. This can lead to a discussion of another, related meaning for *contrary*, that of "from another point of view," as in the expression "to the contrary."

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⁴⁴ Stabl, S. A., & Clark, C. H. (1987). *The effects of participatory expectations in classroom discussion on the learning of science vocabulary*. *American Educational Research Journal*, 24, 541-556.

⁴⁵ *This sample lesson is adapted from Stabl, 1999.*

For *dawdled* and *groping*, begin once again by reading sentences in the story that contain the words. Because these words are verbs, however, you might want to pantomime the meaning of each, rather than supply a conventional definition. Then ask students to create sentences that use the words. You might define *dawdled* with some non-examples, because it is a word that has some clear antonyms, such as *hustled*, *ran*, *went quickly*, and so on.

For *rubies* and *silver*, begin by having the class discuss what precious things are. You might illustrate the words by providing pictures that show rubies and things made of silver. Next, work with the class to make a list of precious things, including rubies and silver, as well as gold, diamonds, and so forth.

The words used in the sample lesson are highly dissimilar. They were selected for instruction only because they happen to come from the story they students were reading. The techniques used to teach the words, however, are somewhat similar. For four of the six words, the teacher starts with sentences from the text, then asks students to create additional sentences to extend the meaning of the word beyond the text. Finally, the teacher also includes a definition, either a conventional verbal one or a gestural one, for each of the words.

The instruction this lesson illustrates is relatively minimal, designed to support the reading of the text. More elaborate instruction would shift the focus from the story to the vocabulary words, and might be useful in a classroom with many English language learners, or in any classroom when a greater emphasis on vocabulary is appropriate. More elaborate instruction also might include using additional sentence contexts for each word, a “yea or nay” activity (“Would you dawdle in the backwoods?”), or having students write a scenario, or story that contains these words.

Some Cautions

Explicit vocabulary instruction does seem to improve comprehension significantly, at least when the words taught come from the text students are reading. Nevertheless, some cautions are in order. First, teaching vocabulary as students read can, under certain circumstances, distract them from the main ideas of the text. Second, teaching words that are not important to understanding the text leads students to focus on individual word meanings rather than on the overall meaning of what they read. The more effort students expend focusing on word meanings, the less effort they will have available to recall information that is important to comprehension.⁴⁶ Thus, to be effective, pre-reading vocabulary instruction should focus on words that relate to the major ideas in a text, rather than on words that are interesting or unusual.

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⁴⁶ Wixson, K.K. (1986). *Vocabulary instruction and children's comprehension of basal stories*. *Reading Research Quarterly*, 21, 317-329.

Teaching Word Meanings as Concepts

Although there is general agreement that effective vocabulary instruction should include the components we have just discussed, there is no such agreement as to the most effective techniques for increasing students' knowledge of specific words. We do know, however, that the most effective instruction teaches word meanings as concepts, using a variety of techniques to help students establish connections among context, their prior knowledge, and the concepts or words being taught.⁴⁷

In this part of the booklet, we discuss specific techniques that have proven successful in teaching word meanings as concepts. These include Concept of Definition Maps, Semantic Mapping, Semantic Feature Mapping, Possible Sentences, Comparing and Contrasting, and Teaching Word Parts.

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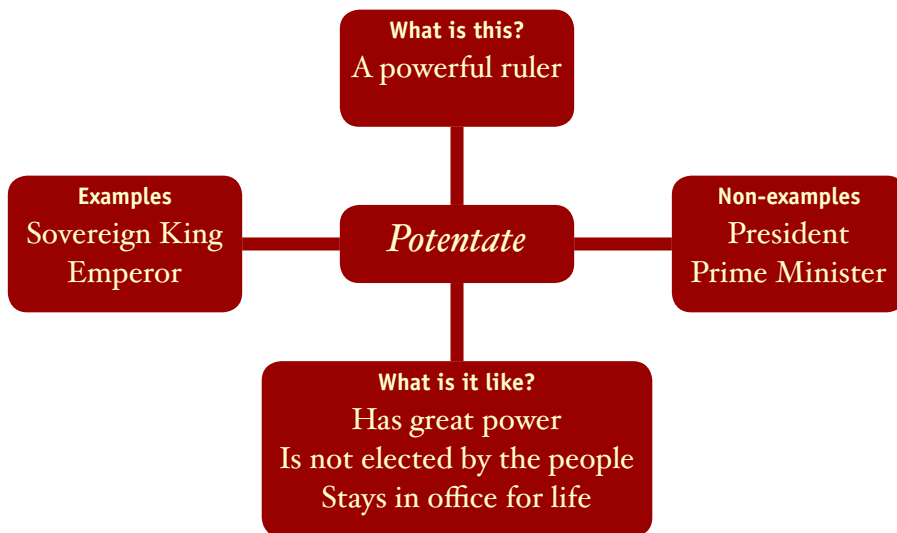
Concept of Definition Maps

Concept of Definition Maps (or Word Maps) reflect the idea that students need to have some understanding of what a definition is and how it works before they can give the meaning of a word on their own. Concept of Definition Maps are graphic displays that show common elements of a dictionary definition. These elements include (1) the category to which the word being defined belongs (What is this?), (2) some characteristics of the word (What is it like?), and (3) some specific examples and some non-examples of the word. Students refer to context, their prior knowledge, and dictionaries to find the elements needed to complete the map.

⁴⁷ Stahl, 1999.

Concept of Definition Map

The following filled-in map for *potentate* was prepared to clarify the meaning of the word *potentate*, which appeared in a story in a fourth-grade reader.



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Once the map is complete, the teacher models how to write a definition using the information on the word map. For example, “A potentate is a ruler who has a lot of power. The people do not elect potentates, and some stay in office for life. Some types of potentates are kings, dictators, and emperors.” After writing their own definitions, students can confirm them by using dictionaries to look up *potentate*, then revise or add to their definitions, if necessary.

A simpler variation of the Concept of Definition Map is called the Four Square activity. In this activity, each student takes a sheet of paper and folds it so there are four sections. The students write the target concept word (such as soothing) in the upper left hand section of the paper, then write some examples of the concept in the upper right section (baths, soft music, chocolate), some non-examples of the concept in the lower right section (loud music, traffic, crying babies), and a definition in the lower left hand section (having a calming effect).

Semantic Mapping

Semantic Mapping involves a web-like graphic display. To begin instruction, students are presented with a concept that is central to understanding a selection or subject. They then brainstorm or freely associate words that are related to that concept. As students brainstorm, the teacher writes their suggestions on the board, adding words they need to learn.

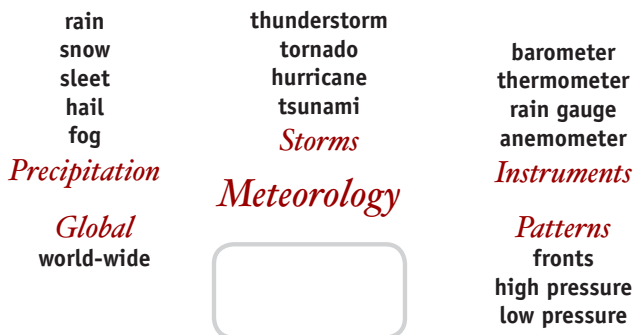
For example, for a unit on weather, the teacher targeted the words *meteorology*, *global*, *precipitation*, *barometer*, and *hurricane* in the text students were about to read.⁴⁸ These words were defined and discussed during the brainstorming session. When the students finished brainstorming, the teacher and the class together developed the following map to show the relationships among the words. The target words were highlighted, and one section of the map was left blank so that the class could fill in another category after reading the selection.

Semantic Mapping is helpful for developing students' understanding of almost any concept. It has been used to develop concepts as diverse as polygons and the Dewey decimal system.⁴⁹

Discussion seems to be a crucial element in the effectiveness of Semantic Mapping.⁵⁰ For example, an individualized mapping procedure, in which students studied maps on their own and did not engage in discussion, did not work as well as a group mapping procedure. As we pointed out earlier, discussion's value is that it seems to engage all students by making them rehearse possible answers to teacher questions.

Discussion during Semantic Mapping may be especially important for students with more limited vocabularies. These students may not know many of the related words, and thus they may learn these words along with the targeted ones. Students with more developed vocabularies can also benefit from discussion. These students may know most of the related words; therefore, seeing them will reinforce the meaning of the targeted words.

Semantic Map



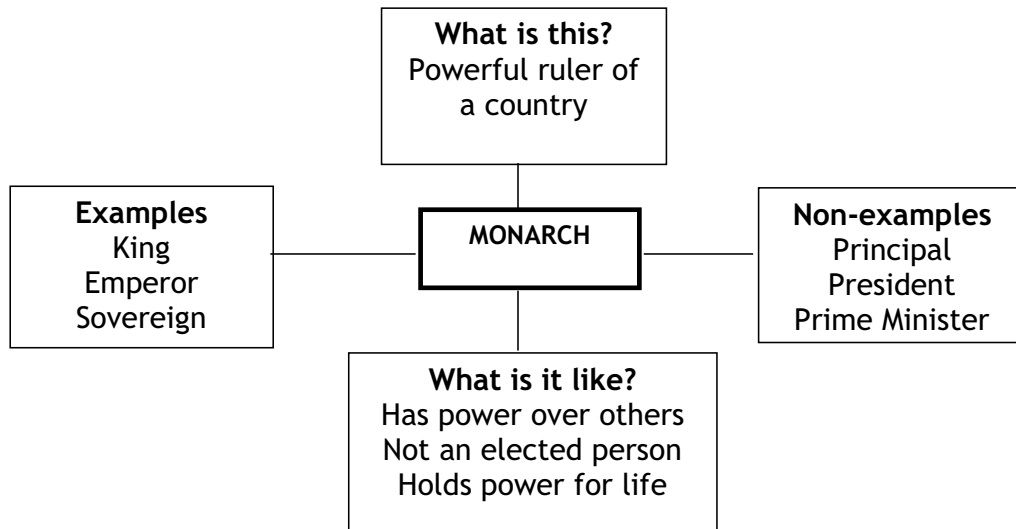
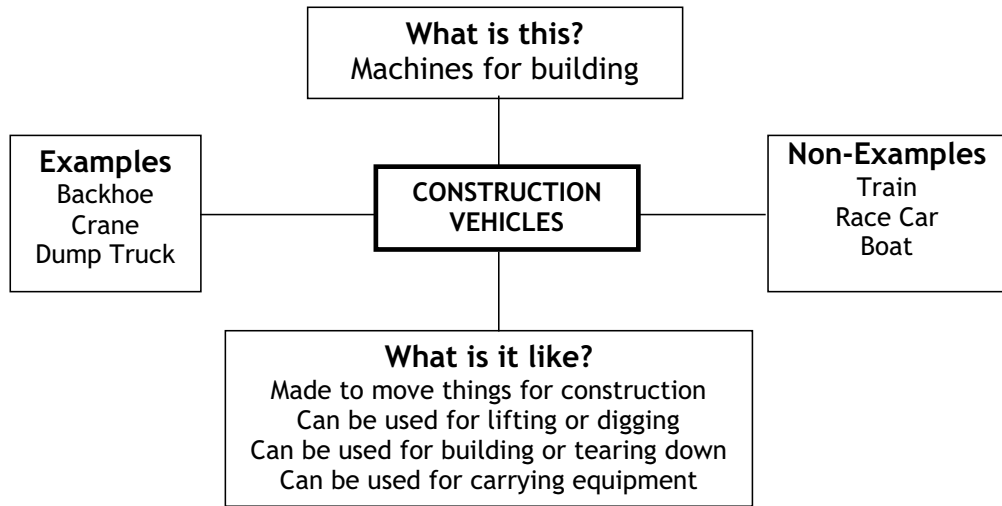
⁴⁸ Stabl, S. A., & Vancil, S. J. (1986). Discussion is what makes semantic maps work. *The Reading Teacher*, 40, 62–67.

⁴⁹ See Heimlich, J. E., & Pittleman, S. D. (1986). Semantic mapping: Classroom applications. *Newark, DE: International Reading Association*.

⁵⁰ Stabl & Clark, 1987; Stabl & Vancil, 1986.

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Graphic Organizers for Vocabulary Development



Four-Square Vocabulary Map

Fold a sheet of paper into four sections.

Word Picture can be added	What are some examples?
What is it?	What is it like?

Student Knowledge Rating Checklist

GEOLOGY

How much do I know about these words?

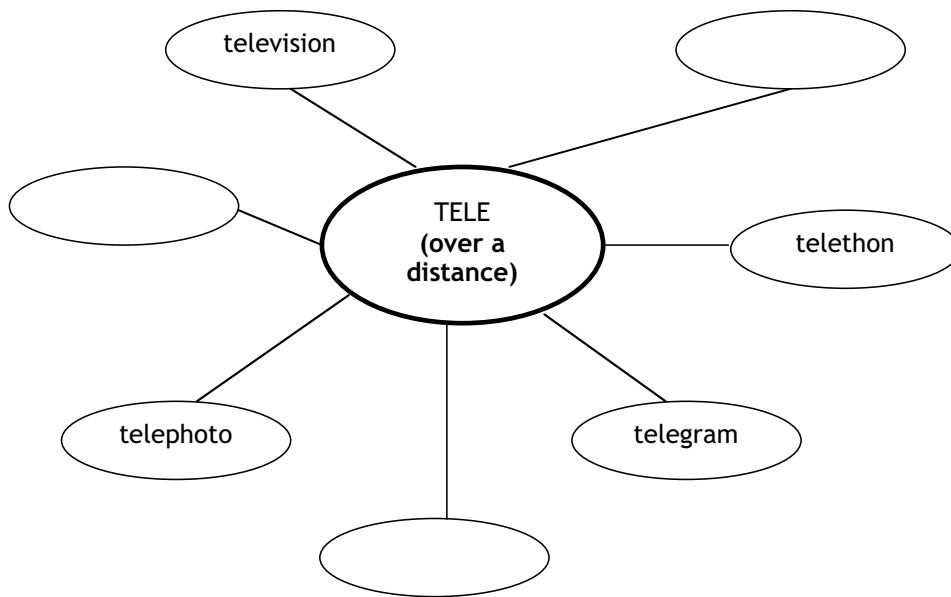
Vocabulary Words	I Can Define	I Have Seen/Heard	I Don't Know
core			✓
mineral		✓	
volcano	✓		
geyser		✓	
magma			✓
lava	✓		

Student Knowledge Rating Checklist

TOPIC:

How much do I know about these words?

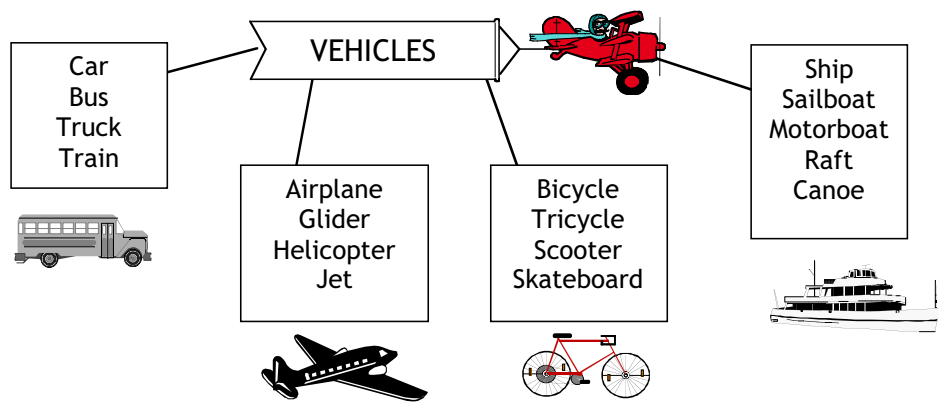
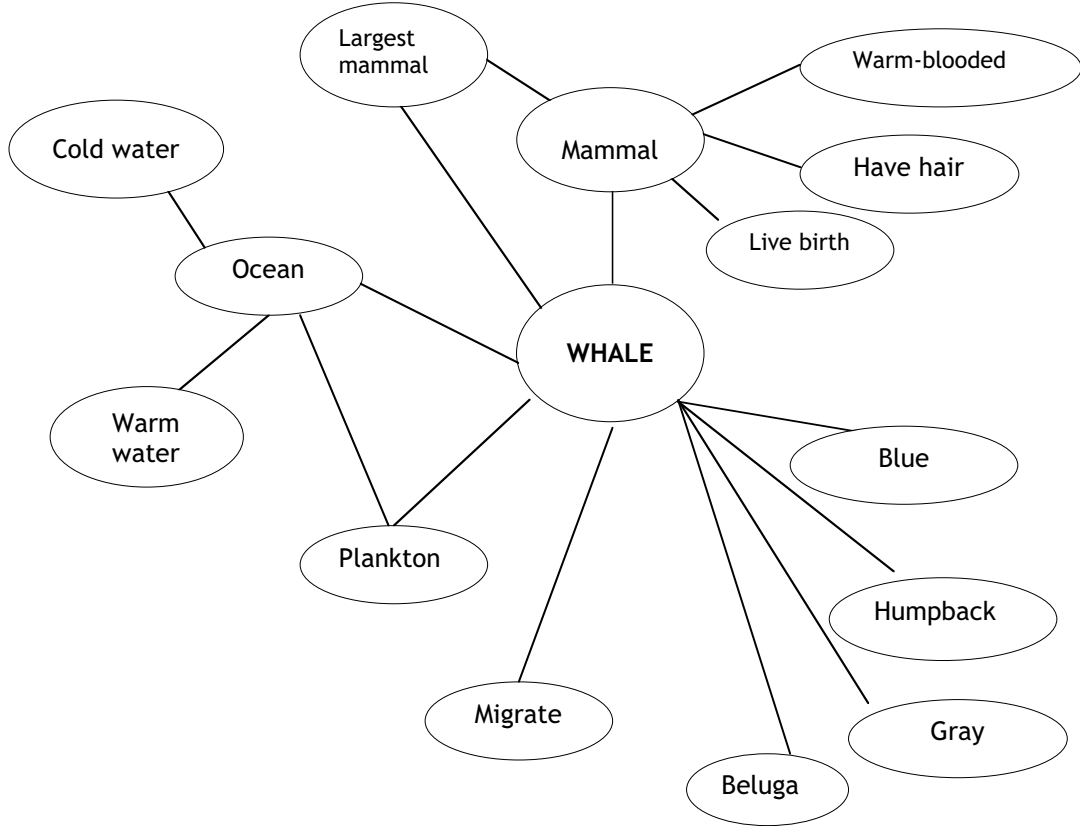
Vocabulary Words	I Can Define	I Have Seen/Heard	I Don't Know

Word Parts Word Web

Sample prefixes and suffixes that can be used:

semi = half *less* = without *bio* = live *tri* = three

con = with *mis* = wrong *cle* = small *orium* = place for



Building Vocabulary with Content Word Walls

Content Area: Mathematics

Topic: Writing Word Problems

Vocabulary:

bar graph	capacity	denominator
fourth	fraction	greater than
half	horizontal	hours
length	less than	measure
minutes	numerator	picture graph
product	second	subtract
sum	thermometer	third
vertical	weight	width

Vocabulary-building activities:

- ◆ Use objects and pictures to introduce words.
- ◆ Create a semantic map. Group words for a particular kind of problem. For example: all the words you use for time measurement.

Content Word Wall Planner

Content Area: _____
Topic: _____
Vocabulary: _____

Content Area: _____
Topic: _____
Vocabulary: _____

Content Area: _____
Topic: _____
Vocabulary: _____

Vocabulary-building activities:

Vocabulary-building activities:

Vocabulary-building activities:

Extending Learning in Small-Group Settings

Word Wizard

Grouping: Pairs or small groups

Materials: Narrative or expository text; journals

Directions:

- You are a Word Wizard.
- Your job is to find words in the story that are interesting, new, different, unusual, funny, difficult, or important.
- Write each word in your journal. Include the story's title and the number of the page where you found the word. Explain in one or two sentences why you chose the word.
- When you finish, discuss with your partner or others in your group:
 - Does anyone know the word's meaning?
 - How is the word used in the story?
 - Can you use the word in a sentence to show its meaning?

Adapted from Blachowicz, C., & Ogle, D. (2001). *Reading comprehension: Strategies for independent learners*. New York: Guilford Press.

Extending Learning in Small-Group Settings

Add-a-Part

Grouping: Individual or pairs

Materials: Word cards; pocket charts; journals

Teacher Preparation: Write previously studied prefixes, suffixes, and base (or root) words on individual cards. Separate prefixes, suffixes, and base words by placing them in resealable plastic bags.

Directions: Use the pocket chart. Create new words by adding prefixes and suffixes to one of the base (or root) words. Write the words in your journal. Make as many words as you can.

Base/Root Word: _____

Adapted from Marriott, D. (1997). *What are the other kids doing...while you teach small groups?* Cypress, CA: Creative Teaching Press.

Handout 8: The Most Frequent Affixes in Printed School English

The Most Frequent Affixes in Printed School English

Rank	Prefix Prefix	Percent of All Prefixed Words	Suffix	Percent of All Suffixed Words
1	un-	26%	-s, -es	31%
2	re-	14%	-ed	20%
3	in-, im-, il-ir- (not)	11%	-ing	14%
4	dis-	7%	-ly	7%
5	en-, em-	4%	-er,-or (agent)	4%
6	non-	4%	-ion, -tion, -ation, -ition	4%
7	in-, im- (in)	3%	-able, -ible	2%
8	over-	3%	-al, -ial	1%
9	mis-	3%	-y	1%
10	sub-	3%	-ness	1%
11	pre-	3%	ity, -ty	1%
12	inter-	3%	-ment	1%
13	fore-	3%	-ic	1%
14	de-	2%	-ous,-eous, ious	1%
15	trans-	2%	-en	1%
16	super-	1%	-er (comparative)	1%
17	semi-	1%	-ive,-ative, -tive	1%
18	anti-	1%	-ful	1%
19	mid-	1%	-less	1%
20	under- (too little)	1%	-est	1%
	All others	3%		7%

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**Stop and Think About It:
Vocabulary Development**

Title of Story: _____

Book: _____ Unit: _____ pp. _____

List the pre-selected vocabulary words.

List any affixes that occur throughout the story or article.

Select words to teach before the story is read.

List instructional procedures/activities for teaching the words **before** the story is read.

List instructional procedure/activities for expanding vocabulary **after** the story is read.

List independent word-learning strategies and write a short explanation of how they are taught.