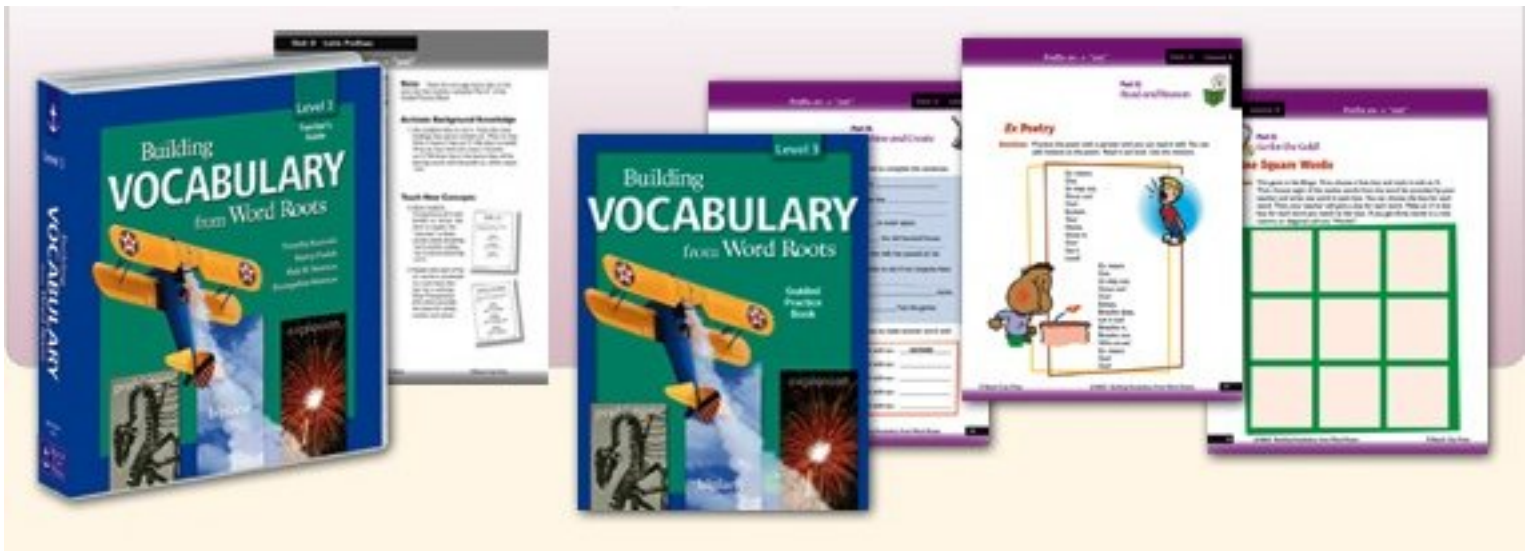


Research-Based Curriculum

Building Vocabulary from Word Roots Levels 3-8



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**A Complete Supplemental Vocabulary Program Based on Respected
Research & Literature**

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Teaching Vocabulary: Research and Practice

What is vocabulary? Simply put, vocabulary is knowledge of word meanings. We use our oral vocabulary to listen and speak, and our print vocabulary to read and write. Each of us also has a unique word schema consisting of active and passive vocabulary. Active vocabulary includes words we can quickly generate when we speak or write because we know them well. Passive vocabulary includes those words we can recognize but don't regularly use. We only know them well enough to figure them out when we encounter them.

Words themselves are constructed from tiny units of sound (phonemes) that form units of meaning (morphemes). We use letters and letter patterns (graphemes) to spell or represent those meanings in print. But very often there is no simple one-to-one connection between the sound (or spelling) of a word and its meaning. Consider these examples:

Words can have the same sounds and spellings but multiple meanings. Define the word *running* in each of these sentences:

I am *running* in a marathon.

My neighbor is *running* for city council.

My refrigerator is *running* in the kitchen.

Everyone agrees that an extensive vocabulary helps us share our thoughts and feelings with others more effectively. An extensive vocabulary is also central to reading comprehension: The larger a reader's vocabulary, the easier it is for him or her to understand the meaning of a text (National Reading Panel 2000). Young readers who lack adequate vocabulary knowledge cannot apply word recognition strategies efficiently. Baffled, they become frustrated and are quickly left behind by those readers who do have adequate word knowledge. The result is an escalating cycle of reading failure for too many children. It only makes sense! In fact, decades of research have consistently found a deep connection between vocabulary knowledge, reading comprehension, and academic success (Baumann and Kame'enui 2002).

Until very recently, most formal vocabulary instruction has been limited to the introduction of key words before reading a new text. Yet the National Reading Panel (2000) found that vocabulary is learned both indirectly and directly, and that dependence on only one instructional method does not result in optimal vocabulary growth. We must do more. In this section, we define the concept of vocabulary and highlight important evidence-based research findings that clarify its critical role in reading comprehension instruction.

Teaching Vocabulary: Research and Practice *(cont.)*

Words can also have the same sounds but different spellings and meanings. Define the words *bear* and *bare* in each of these sentences:

bear

bare

Hiking through the forest, John and Mary grew afraid of the *bears*. They could not *bear* the cold and blowing snow, so they looked for shelter to protect their *bare* hands and face. Finding a *bare* room, Mary asked John to *bear* with her as she built a fire.

This fusion of sound/meaning/spelling makes learning English words both interesting and complex.

Why Is Vocabulary Important?

Early reading instruction focuses on the phonological aspect of word learning. Children learn to manipulate phonemes and recognize letter patterns and to use this information strategically to decode unfamiliar words. It's easy to forget that many children do not automatically understand what the words mean once they have decoded them. Learning to read new words also often means learning new concepts or new labels for familiar concepts.

A solid bank of conceptual knowledge is especially important for beginning readers. Meaning does not automatically follow successful decoding if the concept related to the decoded word is not part of a child's vocabulary. Wide conceptual knowledge supports decoding. Hiebert and Kamil (2005) view vocabulary as a bridge that connects the word-level process of phonics and the broader cognitive process of comprehension. This is a useful way to visualize the importance of vocabulary for young readers.

A wide vocabulary is also important for success in school beyond early reading. As students move from grade to grade, literacy tasks become more complex. Most researchers believe that children naturally add between 2,000 to 3,000 new words each year, yet by fifth grade they will meet 10,000 new words in their reading alone (Nagy and Anderson 1984). Many of these words will represent challenging and unfamiliar content area concepts. An extensive vocabulary helps students read fluently, comprehend, discuss what they have read, and learn. Sadly, we know that students who begin school with smaller vocabularies are at an academic disadvantage that most never overcome (Hart and Risley 1995, 2003).

Teaching Vocabulary: Research and Practice *(cont.)*

How Should Vocabulary Be Taught?

New words are learned directly and indirectly (National Reading Panel 2000). Direct teaching of key words can be worthwhile, but research tells us that children can only learn eight to ten new words each lesson through direct instruction (Stahl and Fairbanks 1986) because learning requires repetition and multiple exposures. Students will require frequent opportunities to use new words in oral and print contexts in order to learn them on a deep level (Blachowicz and Fisher 2002).

Students should also study the structural and semantic nature of words. They should use the surrounding context and/or word parts (prefixes, suffixes, bases) to unlock meaning. Learning key word parts will enable students to master new words that are semantically connected.

In other words, looking words up in a dictionary and learning definitions are not enough to ensure word learning. However, dictionaries and other reference works can add interest to a vocabulary program. Most students learn word analysis strategies (phonics, context) in the primary grades. They also begin to learn about reference tools. For example, they may know how to use a dictionary, but they may not know the enormous variety of electronic and print dictionaries now available. They may know the concepts of synonym and antonym, but they may not know how to use a thesaurus. (Some of the electronic ones available are really fun to use!) Explicit practice with all these strategies for unlocking word meanings will help students learn to use them automatically. So a vocabulary program should focus on reinforcing and expanding the strategies students have already learned. Moreover, teachers will be encouraging students to become word sleuths, a habit that they may well carry with them throughout (and beyond) their school years.

Most vocabulary is learned indirectly or spontaneously through discussion, reading, or listening. So another important principle of vocabulary instruction is to read aloud to students. Choose books with wonderful words and powerful language. Share your own favorites. Encourage students to do so as well. If students will be tackling a new or difficult concept in the content areas, begin by reading them some picture books that address the topic. In addition to their many other benefits, read-alouds help increase children's oral vocabulary, which is an important stepping stone to reading comprehension.

Teaching Vocabulary: Research and Practice *(cont.)*

Related to this principle is another: encourage wide reading. The more students read, the better. Establish different purposes for reading—including pure pleasure—and urge students to choose texts at various levels of difficulty. Research tells us that students learn more new words incidentally, when they appear while reading or listening, than they do through direct instruction (Lehr, Osborn, and Hiebert 2004).

Share your own love of words and invite students to share theirs. Each of us has favorite texts that we turn to because the words move us to laughter or tears. Read these aloud to your students and talk about the power of words. Invite them to do so as well. Whet their appetites by sharing interesting word histories and then showing them how to explore the origins of lots of words themselves. Focus on the “Interesting Words” and “Did You Know” features of *Building Vocabulary from Word Roots*. Post a list of websites or print resources for students to investigate themselves. Encourage them to share what they discover with the class.

In other words, make word learning and word play a priority in your classroom. Provide regular opportunities for students to practice and discover words on their own and in the company of others. This is one of the key ideas behind *Building Vocabulary from Word Roots*. As they progress through lessons for a week, students have dozens of opportunities to work with new word parts in a variety of ways. Several other word-learning activities are described below.

Remember that words themselves are just plain interesting, and our ultimate goal is to create lifelong word lovers. *Building Vocabulary from Word Roots* gives students time to do crossword puzzles and word scrambles or to create riddles and tongue twisters. Not only is this fun—it’s good instruction. Make time for students to play and explore word games on their own or with others. There are countless easily accessible word activities available for students to do on the Internet. Check the resources in the *Teacher Resources* section.

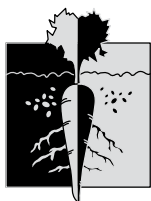
Differentiating Instruction

Over the past few years, classrooms have evolved into diverse pools. Gifted students, English language learners, learning disabled students, high achievers, underachievers, and average students all come together to learn from one teacher in one classroom. The teacher is expected to meet all their diverse needs. It brings back memories of the one-room schoolhouse during early American history. Not too long ago, lessons were designed to be one-size-fits-all. It was thought that students in the same grade level sharing the same class learned in similar ways. Today, it’s clear that this viewpoint is wrong. Students have differing learning styles, come from different cultures, experience a variety of emotions, and have varied interests. For each subject, they differ in academic readiness. Teachers have realized that they must differentiate their teaching to better meet the needs of their students.

Teaching Vocabulary: Research and Practice *(cont.)*

Differentiation encompasses what is taught, how it is taught, and the products students create to show what they have learned. These three categories are often referred to as content, process, and product. Teachers should differentiate content, process, and product according to students' characteristics. These characteristics include students' readiness, learning styles, and interests. If a learning experience matches closely with their skills and understanding of a topic (readiness), they will learn better. Creating assignments that allow students to complete work according to their preferences (learning styles) will help learning experiences become more meaningful. If a topic sparks excitement in the learner (interests), then students will become involved in learning and better remember what was taught.

To make the activities within this series most effective, teachers should try to differentiate some of the lessons. Not all students need to be engaged in exactly the same activity at the same time. Below are some general suggestions for ways to differentiate the five parts of the activities.



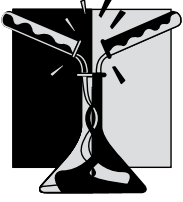
Part A (Meet the Root)—This is the core knowledge of the week's lessons. All students need to have a firm foundation in this information.

Above grade level—Even your highest students will not know most of this information before you begin the lesson. (Greek and Latin roots do not tend to come naturally to students.) However, keep in mind that these students do not need to practice as many examples as other students. Two ways to differentiate this activity are to shorten the number of examples students must complete and/or have them complete only the most difficult examples.

English Language Learner (ELL)—Adding context to the language is one of the most important keys to success with the ELL population. ELL students may have acquired social language skills, but the type of language skill studied in these lessons is very academic in nature. It will take them longer to acquire these skills and abilities. They may not see the words in the same way that the teacher and non-ELL students do. To differentiate this initial step with them, try to embed the words in a context. Rather than just a list of ten words, provide them with five sentences. Underline or bold the key words and have them focus on those within the context of the sentence. Try to reduce the number of words from ten to five as well. ELL students will need more time to work through this activity. It's also a good idea to read the sentences or words aloud to these learners. Hearing the words will help them increase their verbal interaction and relate sounds to the written words. Finally, provide large copies of the words that the students can cut apart and manipulate as they look for prefixes, suffixes, and base words.

Below grade level—Make the concept more concrete for these students. You might want to do a few of the examples with them. Show them the prefixes, bases, and/or suffixes. Have dictionaries available so they can look up the words if they have trouble. Giving these students a few extra supports will help them feel more secure and be more successful.

Teaching Vocabulary: Research and Practice *(cont.)*



Part B (Combine and Create)—This activity asks students to compose English words from the roots. Usually, in this part of the lesson, students must analyze something and record an English word as the answer.

Above grade level—To differentiate, above grade level students can make up their own examples. So, instead of simply writing the answer to a riddle, they create their own riddles. Then, they can be paired with on-grade level or below-grade level students to share their riddles and give those students more practice.

ELL—These students would also benefit from a word bank for the answers. If possible, begin the session sitting with these students in a small group and work through the examples together. Use expression and body language to help share the meanings. Then, students can refer to the word bank to decide the best choices. When they begin to feel more comfortable, leave the group to work together. Check back in with them shortly to make sure they're still on task and they are not anxious about the assignment.

Below grade level—These students will benefit from working in pairs on these activities. Working together helps them share their strengths and support each other when the examples get more difficult. They will each still be responsible for completing the assignment, but they can pool their knowledge as they work. Consider providing these students with a word bank for the answers.



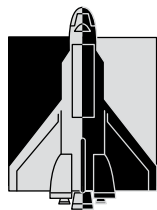
Part C (Read and Reason)—Students read short paragraphs and poems as they encounter the word parts in context.

Above grade level—After they finish this assignment, challenge these students (and your on-grade level students) to find more examples of the words in their textbooks, resource books, reading books, etc. Students can start a list on bulletin board paper of all the examples they've found. Have them write the words in the complete sentences so that the lower-level students can see the words in multiple contexts. Extra challenges like this should always be more fun than work. It is never fair to punish these students for being above average by giving them busy work.

ELL—This is an excellent activity for the ELL students. The words in context will mean much more to them than the words by themselves. In fact, consider switching it up a bit for this group. Do this activity as Part A and move the rest of the lesson back one day. If starting with this activity, the students will have a context in which to place the words for the rest of the week. It would be smart to read the poems or paragraphs together first. Then, allow the students to work in pairs to complete the activity sheet. Be sure to be available to help them and have dictionaries accessible to them. If possible, provide dictionaries with translations between their primary languages and English.

Teaching Vocabulary: Research and Practice *(cont.)*

Below grade level—Seeing the words in context will be very beneficial for these students. However, depending on their reading levels, the teacher may need to read the poems or paragraphs together. Through your modeling of fluent reading, many of these students will learn more meaning from the writing pieces. Provide dictionaries for their use as they complete the activity. Teachers may also want to allow them to work with partners or in small groups.



Part D (Extend and Explore)—Students work individually and in groups to create applications for the new vocabulary.

Above grade level—This activity is well suited to these students. It's usually creative in nature and allows some flexibility in the products produced.

ELL—Applying their learning may be very difficult for these students. It might be hard for them to think of new contexts within which they can apply what they've learned. For example, writing a sketch or drawing images of the word parts may make no sense to learners who are trying to keep the words within context. Partner these learners with on-grade level students. With that partnership, the on-grade level students can become peer-teachers and help the ELL students succeed.

Below grade level—These activities are at a slightly higher level than the previous three days' activities. Hopefully, with the activities they've completed earlier in the week, the students will be prepared for this application activity. If students seem anxious, try to provide examples and support. You may want to work with some of these students as they begin their assignment to ensure they understand what they are doing. Complete a few practice examples with them to get them started. Support any success they have with the assignment and encourage them to try the more difficult problems. If necessary, reduce the number of examples they are expected to complete.



Part E (Go for the Gold!)—Students enjoy word games as they review the words and concepts for the week. These activities probably do not need to be differentiated. Just be sure that the teams for these activities are heterogeneous and supportive of all learners. If there is any preparation needed for the games, make sure that the teacher or the students help the below-grade level students and the ELL group to be prepared.

Finally, make sure the competition aspects of these activities do not make your lower-level students too anxious. If these students are stressed, consider having them help run the games or act as the audience.

Teaching Vocabulary: Research and Practice *(cont.)*

Do English Language Learners Have Special Vocabulary Needs?

Did you ever study a foreign language in school? If so, you may recall feeling both excited and confused as you explored a whole new way of talking, reading, and thinking. This is how students who are learning English as a second language feel in English-only classrooms. Given the cultural and linguistic diversity of our population, your classroom may have children from several countries. How do you plan vocabulary instruction that reaches each individual learner?

Students who learn English at school have unique advantages and challenges. They bring rich background experiences that can be tapped to enhance everyone's learning. They know how to move between two languages, integrating sounds and meanings into new words and grammatical structures. As they learn English, their natural manipulation of two languages promotes higher-level thinking. Yet ELL students sometimes feel lost in the unfamiliar linguistic and academic world in which they find themselves.

Fortunately, everything we know about how to teach vocabulary applies to both first- and second-language learners: ELL students need to focus on meaning, using research-based strategies to learn new words. They need frequent opportunities to try out new words in varied learning contexts. The major difference is that ELL students generally require more distinctive and frequent support.

The kind of word study in this book helps English learners actively seek elements of words. It helps them develop strategies for breaking words into smaller and more understandable components, rather than feeling overwhelmed by strings of letters that form incomprehensible words. It will be helpful if, prior to each lesson, you make certain that ELL students understand the prefix and at least a few of the root words. Then, class discussion will support further comprehension and word learning.

The first day of each *Building Vocabulary from Word Roots* lesson features teacher-led discussion, and many activities throughout the lessons either direct students to work with partners or can be adapted for small-group work. These discussion opportunities will benefit ELL students by supporting their growth in conversational English as well as promoting learning of the featured word parts.

Teaching Vocabulary: Research and Practice *(cont.)*

Use students' native language wherever possible. Many English words have cognates in other languages. Because they share Latin derivatives, Spanish-speaking students can easily relate many new English words to Spanish. In teaching *aqueduct*, for example, students may already have the concept of *water* from the Spanish word *aqua*. Encourage students to draw such connections between their first and second languages. In *Building Vocabulary from Word Roots*, the Latin roots are identified for students, which should simplify this process.

Whether children are native English speakers or learning English as another language, the goal is word awareness. Students need active exploration to stimulate a lifelong love of words. One of the authors of this series was fortunate enough to encounter a teacher who adopted these strategies. As you will see, Miss Cassell's influence extended well beyond their year together:

What Miss Cassell instilled in us, through Friday "Roots Day" fun-and-games, was not just vocabulary that would help us for the rest of our lives when we read literature and textbooks, or took the SATs, ACTs, and GREs. She instilled curiosity about words—where they came from and how they could be used. She instilled a love of words that continued long after we left her classroom. Perhaps just as importantly, she instilled in us the confidence that when confronted by a new and difficult word, we often have the resources within ourselves to grasp its meaning (Newton and Newton 2005).

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