TCM | Teacher Created Materials

strawberry

watermelon

cherry

melon

BUILDING VOCABULARY

Unlock the magic and meaning of words!

Introduction

Building Vocabulary is a research-based curriculum designed to teach students the foundational building blocks of vocabulary. Rooted in linguistic principles and cognitive research, this program equips students with the tools to analyze, understand, and derive meaning from the ways words are constructed and used. By focusing on the structural and semantic aspects of vocabulary, the materials empower students to decode unfamiliar words, deepen their understanding of language, and enhance their overall literacy skills.

The program is structured into two levels tailored to different developmental stages. *Building Vocabulary: Foundations*, designed for students in kindergarten through second grade, emphasizes word analysis at the word family (rime) level. Young learners begin by exploring sound-spelling patterns, which provides them with a phonetic foundation to recognize and construct words. As students grow in their abilities, the curriculum introduces them to word parts that share meanings, such as Greek and Latin roots, laying the groundwork for more advanced study. For students in grades three and above, the curriculum transitions to *Building Vocabulary from Word Roots*, which delves deeper into the study of Greek and Latin prefixes, bases, and suffixes. These units form the foundation of the vast majority of English words, making this approach essential for developing robust vocabulary skills.

Building Vocabulary Authors

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Program Architecture

Building Vocabulary: Foundations, 2nd Edition (K–2)

The overall goal of *Building Vocabulary: Foundations, 2nd Edition* (K–2) is to help students see that words often contain similar letter patterns (also called word families or rimes) and know that this can help them decode new words. The human brain is a pattern detector, so taking advantage of linguistic patterns sets the stage for the morphological patterns that students learn later in the program.

Building Vocabulary from Word Roots, 2nd Edition (grades 3 and up)

There is a systematic approach to word awareness and vocabulary building for students in grades three and up. Based on the dual premises that over 90 percent of English words of two or more syllables are of Greek or Latin origin and that most academic vocabulary is derived from Latin and Greek origins, this program teaches essential word strategies that enable students to unlock the meaning of vocabulary words they encounter inside and outside of school. *Building Vocabulary from Word Roots, 2nd Edition* teaches Greek and Latin prefixes, bases, and suffixes—the semantic units from which the vast majority of English words are derived.
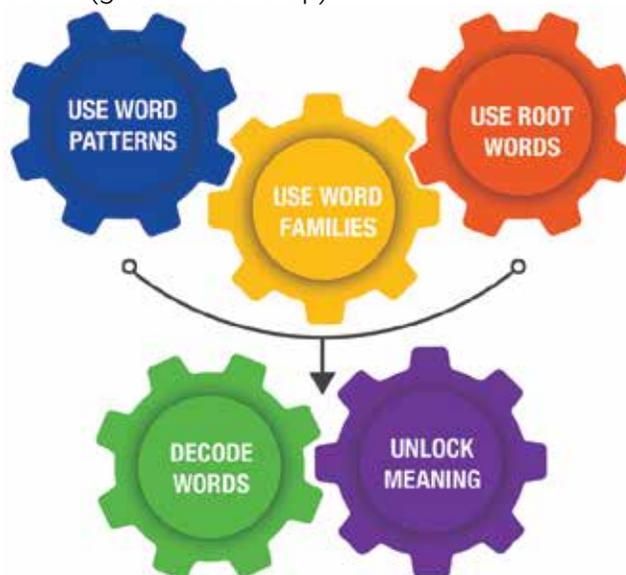
Building Vocabulary, 2nd Edition Lessons

Designed according to a "gradual release of responsibility" instructional model, the *Building Vocabulary, 2nd Edition* lessons allow teachers to scaffold student learning as needed. This flexible model involves demonstration, guided and independent practice, and application. Each word family, group of compound words, or root is introduced with a poem or a short text. Embedding the study of word parts in whole texts reminds students that the ultimate goal of word analysis is meaning. Brief comprehension activities based on the poems and texts also underscore the message about meaning. Moreover, reading and rereading these short texts promotes fluency development. Additional activities focus on building familiarity with the word parts—both their meaning and how they can be used to decode unfamiliar words.

At the beginning of each unit, a few "challenge words" from the poems and texts are identified that may deserve some instructional attention. Including some words in the poems and texts that students do not readily know is a way of raising their curiosity about words and expanding their listening vocabulary. Beck, McKeown, and Kucan (2002) advise some instructional emphasis on words like these—Tier 2 words—which are unlikely to be in students' speaking vocabularies. Many students, and most English learners, may benefit from brief discussions of these interesting words.

Data Study

Overview and Challenge

At the end of the 2016–2017 school year, 42 percent of third through fifth grade students in a midsize suburban Illinois school district who took the English Language Arts Partnership for Assessment of Readiness for College and Careers (ELA PARCC) met or exceeded expectations. During that same period, an average of 67 percent of third through fifth grade students met or exceeded expectations on the vocabulary portion of the Measures of Academic Progress (MAP) assessment, with an average of 62 percent meeting or exceeding expectations in ELA overall.

In 2018, this school district's Strategic Improvement Plan included efforts to make organizational, structural, and instructional changes that would support students'

School Demographics: Enrollment

Elementary School 427
English Learners 9%
With IEPs 15%
Qualify for Free/Reduced Lunch 13.8%
Chronic Absenteeism Rate 5%

Two or More Races - 0.9%
American Indian - 0.2%
Asian - 3.5%
Hispanic - 19.2%
Black - 0.7%
White - 75%

learning and increase academic achievement. Among the plan's goals was that, by the spring of 2020, 100 percent of students would receive daily guided reading at their instructional level. Additionally, students identified as needing additional instruction would receive targeted intervention focused on comprehension.

80%
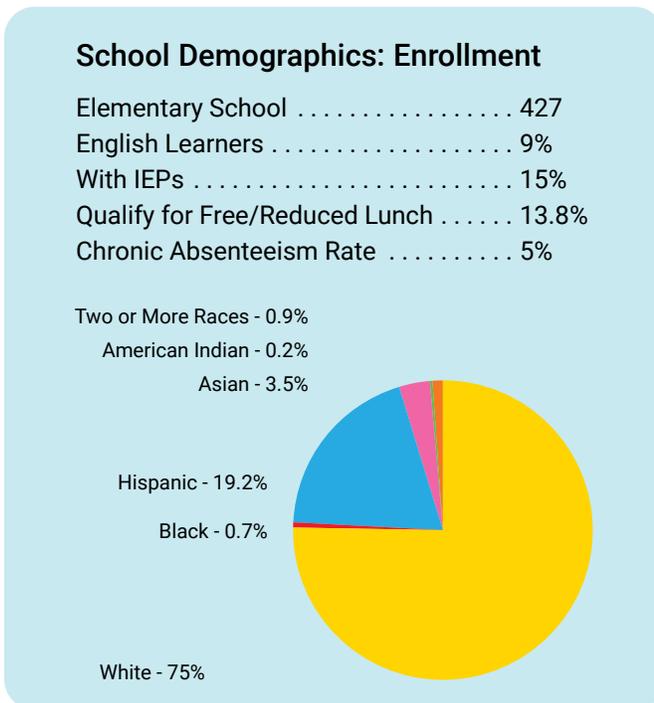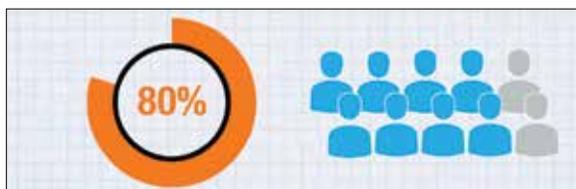
Research shows that over 80 percent of students' reading comprehension test scores can be accounted for by vocabulary knowledge (Reutzel and Cooter 2015). To support the goals of the school district's Strategic Improvement Plan and achieve measurable success results for students, this Illinois elementary school partnered with Teacher Created Materials to implement the *Building Vocabulary, 2nd Edition* program in Grade 3.

The program provides approximately 15 minutes of daily academic vocabulary practice to help students learn key Greek and Latin roots and strategies for deciphering challenging words and their meanings across the content areas. Professional development training, lesson plans, and student materials were provided to the participating teachers.
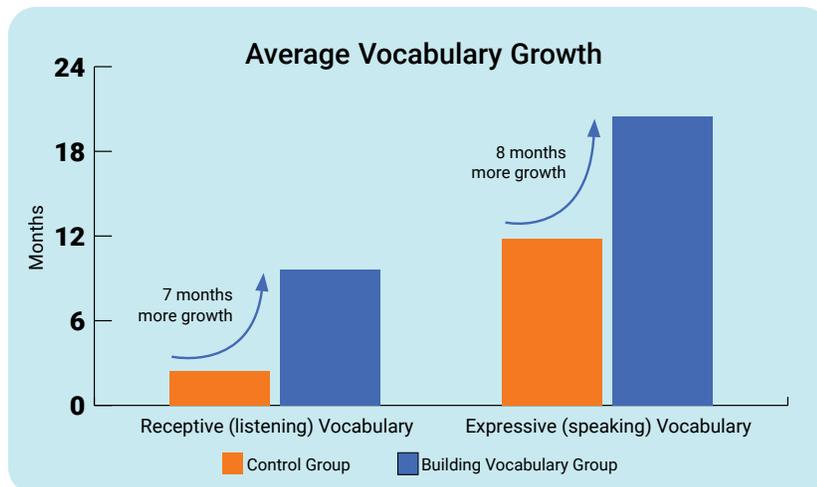
Implementation

The goal of the implementation of the *Building Vocabulary, 2nd Edition* program was to strengthen students' vocabularies using a roots-based approach to aid in their reading comprehension and language skills.

The study was implemented for four weeks in one third-grade classroom using a random sample of 14 students. Another third-grade classroom using a random sample of 14 students was used as a control group. The vocabulary skills of all 28 students were measured directly before and after the implementation of the program to measure growth using the Montgomery Assessment of Vocabulary Acquisition (MAVA) assessment.

The MAVA is a norm-referenced assessment that is designed to measure the development of children's oral language by assessing listening and speaking vocabulary. Scores are generated in two categories: receptive age and expressive age. The receptive score shows a child's age for listening vocabulary. The expressive score shows their age for speaking vocabulary.

Results

At the conclusion of the four-week study, students receiving instruction with *Building Vocabulary, 2nd Edition* increased their receptive (listening) vocabulary by 9 months and their expressive (speaking) vocabulary by 1 year and 8 months. Students in the control group grew their receptive (listening) vocabulary an average of 2 months, and their expressive (speaking) vocabulary an average of 1 year. TCM continues to partner with schools and districts across the country to study the effects of *Building Vocabulary, 2nd Edition.*

Average Vocabulary Growth

Research to Practice

The activities developed for this program offer students varied and engaging opportunities to learn the word parts through the multiple exposures necessary for deep learning. Students unscramble target words, answer (and write) riddles about words, and play word games, such as Go Fish and Memory. One of the most important activities is called "divide and conquer," which helps students learn to locate parts within words. These word parts are initially word families, and students use them to decode. Eventually, however, students find familiar word roots that they can use to determine the meaning of unfamiliar words. The Digital Games mirror the strategies learned in the lessons and provide an interactive space for students to practice combining and dividing the words learned in each unit.

Teaching Vocabulary

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. 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.

Beginning readers encounter many one-syllable "daily life" words. Words such as *cat, look, hill,* and *sleep* came to the English language through Germanic and Scandinavian invasions of England. Because many of these words share spelling patterns (*took, cook, shook*) that generate predictable and consistent sounds, they can easily be taught together as "word families." In fact, a respected body of research has shown that students learning to read often naturally use the sound patterns of familiar print words to make analogies that help them pronounce unfamiliar print words (Adams 1994; Cunningham 2012; Moustafa 2002).

Word families make word processing easy and efficient. When seeing the word *bright*, good readers don't see six letters, they see two chunks: *br*− and *−ight*. Also, word families are consistent; for example, *−ack* always has the same sound. And they are ubiquitous—knowledge of just 38 word families can help students sound out/decode over 650 one-syllable words (Fry 1998) and several thousand words with more than one syllable. When students can identify a word family, they can read many words in the same family by simply changing the initial consonant(s). In addition, much of the vocabulary used in this program also appears in high-frequency word lists, particularly those developed for the primary grades by Fry (2004) and Dolch (1948).

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, students who begin school with smaller vocabularies are at an academic disadvantage that most never overcome (Hart and Risley 1995, 2003).

A solid foundation of vocabulary of understanding allows students to share their thoughts and feelings with others more effectively. It 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 and frustrated, they are quickly left behind by readers who do have adequate word knowledge. The result is an escalating cycle of reading failure for too many students. Decades of research have consistently found a deep connection between vocabulary knowledge, reading comprehension, and academic success (Baumann, Kame'enui, and Ash 2003).

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. The concept of vocabulary and important evidence-based research findings clarify its critical role in reading comprehension instruction.

The Vocabulary of Vocabulary

The vocabulary of vocabulary can be confusing. Unfortunately, different resources use different terms. This is even true of curriculum documents. The list that follows shows how these various terms interrelate and which terms are used in *Building Vocabulary, 2nd Edition*.

affix	any word part that attaches to the beginning or end of a word; an umbrella term for *prefix* and *suffix*
base	a root that carries the basic meaning of a word; a base may be a word part (the base *duct* in *ductile*, *conduct*, *conduction*) or a stand-alone word (e.g., *duct*).
base word	a stand-alone word (i.e., a dictionary entry) to which affixes may be attached (e.g., *view*: *review*, *preview*, *interview*, *viewer*)
prefix	a root attached to the beginning of a word; generally, a prefix gives a word direction, negates a word with the meaning "not," or intensifies a word's meaning by adding the notion of "very"
root	any word part that carries meaning; an umbrella term for *prefix*, *base*, and *suffix*.
suffix	a root attached to the end of a word; generally, a suffix changes a word's meaning and/or part of speech (e.g., *conductor*, *conduction*)

Simply put, vocabulary is knowledge of word meanings. Oral vocabulary is used to listen and speak, and print vocabulary is used to read and write. Each person also has a unique word schema consisting of active and passive vocabulary. Active vocabulary includes words that can be quickly generated when speaking or writing because they are well known. Passive vocabulary includes those words that are recognizable but aren't regularly used. Most people only know them well enough to figure them out when they 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. This fusion of sound/meaning/spelling makes learning English words both interesting and complex.

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.

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

Hiking through the forest, John and Mary grew afraid of seeing a *bear*. They could not *bear* the cold and blowing snow, so they looked for shelter to protect their *bare* hands and faces.

Finding a *bare* room, Mary asked John to *bear* with her as she built a fire.

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 8 to 10 new words each lesson through direct instruction because learning requires repetition and multiple exposures (Stahl and Fairbanks 1986). 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 2014).

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 up words in a dictionary and learning definitions is 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 print dictionary, and they may also know how to use the enormous variety of electronic and print dictionaries available. They may know the concepts of *synonym* and *antonym*, but they may not know how to use a thesaurus. 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 spontaneously through discussion, reading, or listening. So another important principle of vocabulary instruction is to read aloud to students. Teachers should choose books with wonderful words and powerful language. Teachers can share their own favorites, encouraging students to do so as well. If students will be tackling a new or difficult concept in the content areas, it's helpful for the teacher to begin by reading 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.

Related to this principle is another: encourage wide reading. The more that students read, the better. Teachers must 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). Teachers can share their own love of words and invite students to share theirs. Everyone has a favorite text that moves them to laughter or tears. As these are read aloud to students, teachers can talk about the power of words. Invite students to do so as well. A good practice is to whet their appetites by sharing interesting word histories and then showing them how to explore the origins of a lot of words themselves.

Research to Practice

Tier 1 Evidence — Intentionally plan activities to build children's vocabulary and language.

Meaning does not automatically follow successful decoding. If a word is not part of a student's oral vocabulary, the student cannot effectively apply word recognition strategies, which hinders reading comprehension (National Reading Panel 2000). *Building Vocabulary, 2nd Edition* frontloads vocabulary instruction in every lesson so that students have experiences with learning the words they need to know before they encounter them in text.

Building Vocabulary: Foundations

Students learn to "divide and conquer" words by separating initial consonants from the most common word families. Take the word family *–in* for example. Students learn to decode unfamiliar *–in* by focusing on sound-spelling patterns.

b	–in
cous	–in
pumpk	–in

Building Vocabulary from Word Roots

As students progress, the skill of "divide and conquer" remains. The familiar *–in* has a predictable sound and can be readily identified, but the focus shifts to learning words through their roots. Now, students learn *in–* as a directional prefix meaning "in, on, into" and use this knowledge to analyze and decode multisyllabic content-area words.

in–	augerate
in–	vent
in–	scribe

Students with wide vocabularies find it easier to comprehend more of what they are reading than do students with limited vocabularies. The type of reading students encounter in school can be highly specialized, and the words they need to learn can be challenging. This type of academic vocabulary is often not encountered in everyday life or in everyday reading. Therefore, all students need an explicit introduction to and explanation of these vocabulary words.

Some Latin prefixes occasionally change spelling. If a prefix ending in a consonant (such as *con−* and *in−*) attaches to a base beginning with a consonant, the final letter of the prefix may change to make the word easier to pronounce. This is called *assimilation*. For example:

in (not) + *legal*	=	*illegal* (not *inlegal*)
con (with, together) + *pose* (put)	=	*compose* (not *conpose*)

Assimilation is a simple concept, but it can seem technical and confusing. Students may benefit from knowing that prefixes sometimes change spelling to make resulting words easier to pronounce.

Marzano, Pickering, and Pollock (2001) have identified "high-yield" strategies for improving instruction and student achievement. The *Building Vocabulary, 2nd Edition* lessons focus on the skills of identifying similarities and differences between roots and word meanings, with multiple opportunities for practice and reinforcement. Opportunities to provide feedback are evident in each lesson, as well as through the assessments. Finally, cooperative learning is included in the lessons, activities, and games.

Research to Practice

Tier 1 Evidence

Routinely use a set of comprehension-building practices to help students make sense of the text.

Building Vocabulary, 2nd Edition combines the six levels of Marzano and Kendall's New Taxonomy, an update to the classic Bloom's Taxonomy. The prompts and questions included in each lesson move from the lowest level of thinking—basic retrieval of information—through comprehension, analysis, and knowledge utilization (application) (Marzano and Kendall 2007). Finally, the assessments and lessons also help students develop their metacognitive skills by expressing and refining their thoughts as they monitor progress. Marzano and Kendall's highest level of thinking—self-system—includes examining importance, developing efficacy, and examining motivation. The discussions that activate and build background knowledge through the lesson plans and slides, as well as the small-group work activities, help students develop their self-system thinking.
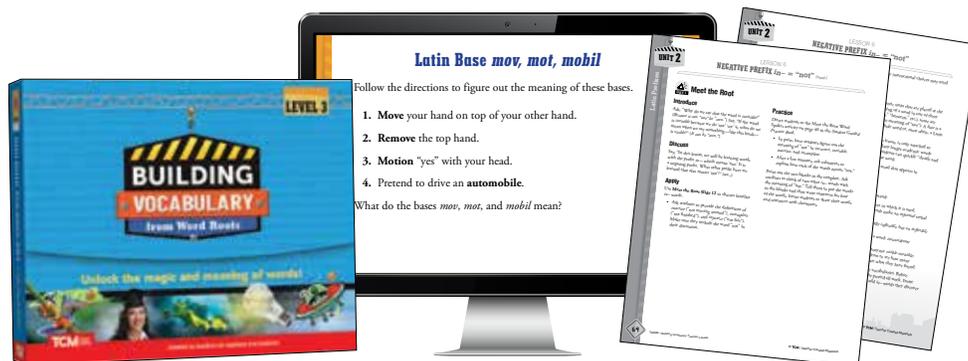
Using Technology to Improve Vocabulary

Within the last decade, there has been a shift in the ways students are expected to think and process information. Students in today's classrooms have been deemed *digital-age learners*. They were born into a digital world and challenge us to transform the classroom experience to better meet their needs (Furman 2015). A pedagogical shift has been recognized as necessary due to the increase in digital technologies and its impact on society. In twenty-first century learning, technology should be used widely and responsibly in the classroom—with the goal of enriching students' learning. Extensive research has been conducted over the years to determine the effectiveness of technology in improving student performance.

The following positive effects have been observed when technology has been used to enhance curriculum:

> ➤ increased achievement
>
> ➤ improved higher-order thinking skills and problem-solving abilities
>
> ➤ enhanced motivation and engagement
>
> ➤ improved ability to work collaboratively

Using Digital Games to Motivate Struggling Learners

Digital games are a proven source of motivation. They are a fun way for students to develop, maintain, and reinforce mastery of essential concepts and processes. The article "Gamification in Education: What, How, Why Bother?" by Lee and Hammer (2011) discusses the benefits and learning potential of using games in the classroom. The authors identify various advantages, including motivation and engagement. Games have the ability to encourage a love of learning and provide meaningful opportunities of extended practice.

Research to Practice

Tier 2 Evidence

Strengthen children's executive function skills using specific games and activities

Games are fun and collaborative, which means that more students have opportunities for success. Attitudes are also an important part of success. Students who feel good about a subject and their abilities to do well in it will be motivated to learn. It is important to provide a positive learning environment where students are under minimal stress; meaning and understand (rather than rote memorization) are emphasized, and real-world concepts are related.

The *Building Vocabulary, 2nd Edition* games, Divide and Conquer and Combine and Create, provide:

> ➤ multiple opportunities for practice and reinforcement of the skills used for identifying similarities and differences between roots and word meanings
>
> ➤ engaging and age-appropriate art and themes
>
> ➤ immediate feedback

LEVELS K–2

LEVELS 3 AND UP

Differentiating Instruction

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. Teaching must be differentiated to better meet their needs (Blachowicz and Fisher 2014).

Differentiation encompasses what it taught, how it is taught, and the products students create to show what they have learned. These categories are often referred to as *content*, *process*, and *product*. Teachers can 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 (Heibert and Kamil 2005).

Creating opportunities 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.

Do English Learners (EL) Have Special Vocabulary Needs?

For those who have ever studied a foreign language in school, it's easy to recall feeling both excited and confused about learning 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 the population, a classroom may have children from several countries. How should teachers 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. As they learn English, their natural manipulation of two languages promotes higher-level thinking. Yet English learners students sometimes feel lost in the unfamiliar linguistic and academic world in which they find themselves.

Fortunately, everything about how to teach vocabulary applies to both first- and second-language learners: 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 EL students generally require more distinctive and frequent support.

Word study in *Building Vocabulary, 2nd Edition* helps English learners develop strategies for breaking words into smaller and more understandable components, rather than feeling overwhelmed by strings of letters that form incomprehensible words. At a minimum, the first day of each 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 EL students by supporting their growth in conversational English as well as promoting learning of the featured word parts.

Use students' native languages 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 *agua*. Encourage students to draw such connections between their first and second languages. In *Building Vocabulary from Word Roots, 2nd Edition*, the Latin roots are identified for students, which should simplify this process.

Response to Intervention

In the world of education, states and districts have implemented multiple forms of intervention. The Multi-Tier System of Support (MTSS) and Response to Intervention (RTI) are two systems for documenting student performance to determine whether there is a need for additional services or for classroom instruction to be adjusted. Specific definitions of these models differ from state to state, but the following are general descriptions and ways to provide academic support to struggling students when using *Building Vocabulary, 2nd Edition.*

Using *Building Vocabulary, 2nd Edition* in Tier 1

Use *Building Vocabulary, 2nd Edition* with the entire class as a component to the core curriculum. The focused lessons provide explicit instruction in key skills that students need, with options for differentiating instruction based on each student's needs. To begin using *Building Vocabulary, 2nd Edition* as a component of Tier 1 instruction, assess students using the Diagnostic Test. Use the unit quizzes for ongoing progress monitoring.

Using *Building Vocabulary, 2nd Edition* in Tier 2

Use *Building Vocabulary, 2nd Edition* with a small group of students who need focused instruction on a particular skill or sequence of skills. Frequently monitor their progress using the unit quizzes and guided practice pages provided with each lesson. Students who do not respond should move to Tier 3 instruction.

Using *Building Vocabulary, 2nd Edition* in Tier 3

e *Building Vocabulary, 2nd Edition* with a very small group of students (or one-on-one) who need focused, systemic, and explicit instruction on a particular skill or sequence of skills. Use the Diagnostic Test to determine a student's specific area(s) of need. Provide additional time for instruction and practice for each component of the lesson being used. Create extra opportunities for practice and review.

Program Outcome

By the end of the program, students will have learned the meaning of some of the most common word families and word roots in the English language. They will understand how to apply those meanings to "divide and conquer" unfamiliar words and deepened their overall "word awareness." Above all, students will have become independent word sleuths and lifelong word lovers!

Developed by Experts

The *Building Vocabulary, 2nd Edition* series was developed by nationally recognized researchers, teacher educators, and authors.

> "I love the notion that *Building Vocabulary* is respectful of teachers' time constraints. Instead of cramming an entire lesson into one long and tedious time period, *Building Vocabulary* spreads instruction out over the course of a week, using different activities so that students can examine the targeted word patterns from a variety of different perspectives."
> —Tim Rasinski

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