

Author

Christine Dugan, M.A.Ed.



Table of Contents

Introduction	Science
Research4	Understanding the Water Cycle113
How To Use This Book6	The Solar System118
Overview of Strategies8	Adapting for Survival123
Overview of Assessment32	Solid, Liquid, or Gas?128
Standards Correlations34	Scientific Investigations133
Correlation to McREL Standards35	Social Studies
Correlation to TESOL Standards37	Places on the Map138
Reading	Geographic Features143
Life Stories38	The Courage of Rosa Parks148
Follow the Directions43	Innovation During the Industrial Age153
A Fantasy World48	
Let's Talk Fiction53	Camel Caravans158
A Lesson in a Fable58	Answer Key 163
	•
Writing	References Cited171
Writing Writing Personal Narratives63	References Cited171
	References Cited
Writing Personal Narratives63 Vivid and Colorful Descriptive	References Cited
Writing Personal Narratives	References Cited

Research

This series, *Academic Vocabulary:* 25 *Content-Area Lessons*, provides ready-to-use lessons that help teachers develop effective strategies that build vocabulary and conceptual understanding in all content areas. Vocabulary knowledge is a key component of reading comprehension and is strongly related to general academic achievement (Feldman and Kinsella 2005). Students need to understand key academic vocabulary that crosses all content areas to fully develop conceptual understanding.

What Is Vocabulary Knowledge?

Simply put, *vocabulary knowledge* means having an awareness of words and word meanings. Yet, vocabulary skills are more complicated than simply reciting key terms and their definitions.

Vocabulary knowledge is often described as *receptive* or *expressive*. *Receptive vocabulary* includes words that we recognize when heard or seen. *Expressive vocabulary* includes words that we use when we speak or write. Students typically have a larger receptive vocabulary than expressive vocabulary (Lehr, Osborn, and Hiebert 2004); they are familiar with many words, but may not understand their multiple definitions or the deeper nuances of how those words are used in oral and written language.

So, then, what does it mean for a student to truly know a word? Beck, McKeown, and Kucan (2002) state that word knowledge is not black and white; understanding vocabulary is not as simple as either knowing a word or not. The process by which students learn new words is complex and often occurs in progression. Word knowledge may range from students never having heard of a word, to students understanding all there is to know about a word, or some level of understanding that lies between the two extremes. Understanding this complexity of word knowledge helps educators develop a vocabulary program that addresses these unique learning processes. The lessons in this book support both receptive and expressive vocabulary.

What Is Academic Vocabulary?

Specialized content vocabulary, although distinct, is considered a part of academic vocabulary. Yopp, Yopp, and Bishop (2009) have developed definitions for each category. **Specialized content vocabulary** words are specific to a particular content area and represent important concepts or ideas. Examples of these include *boycott* (social studies), *habitat* (science), *numerator* (mathematics), *autobiography* (reading), and *narrative* (writing). **General academic vocabulary** includes high-utility words found across content areas and throughout students' academic reading, writing, and speech experiences. Words such as *explain*, *define*, *identify*, and *organize* are examples of general academic vocabulary.

How To Use This Book

Academic Vocabulary: 25 Content-Area Lessons provides teachers with lessons that integrate academic vocabulary instruction into content-area lessons. This book includes 25 step-by-step, standards-based lessons. Each lesson features two vocabulary-development strategies that reflect the latest research in effective vocabulary instruction. The strategies within each lesson vary and are presented in detail on pages 8–31 and address the following key aspects of effective vocabulary instruction:

Developing Oral Language

Developing students' oral language skills is crucial to assist them in navigating school texts and understanding more complex oral and written patterns of language. These strategies help students gain a deeper understanding of academic words and concepts by guiding them to use the words in a meaningful way.

Developing Word Consciousness

These strategies provide structured opportunities to build students' awareness of academic words used in the classroom and their lives. Students are encouraged to note when they see or hear key words and to use the words themselves. This strategy helps students develop a true love of language and a keen sense of how words sound as they hear and speak them.

Teaching Words

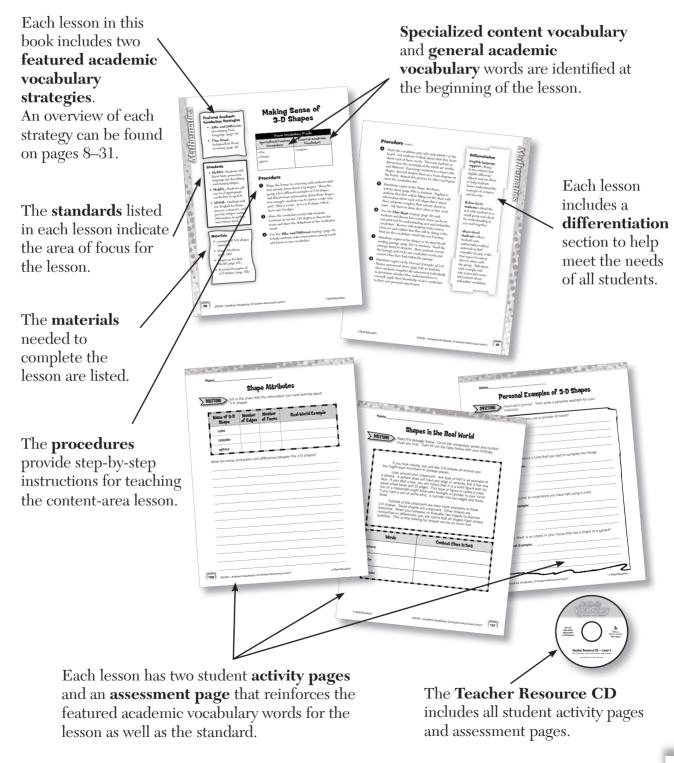
These strategies use a variety of techniques to help students build conceptual knowledge and increase their oral and written vocabularies. This type of strategy may be incorporated at different points throughout your study. Some of the strategies are more effective in introducing new words while others will benefit students as they review and make connections among words.

Independent Word Learning

These strategies help students derive word meanings and explore the use of context to infer the meaning of unknown words. The strategies can be taught and reviewed throughout the school year to improve students' abilities in learning words independently.

How To Use This Book (cont.)

Each two-page lesson is followed by two student activity pages as well as an assessment that allows teachers to assess students' vocabulary knowledge in effective and meaningful ways. All of the reproducible student activity pages are also included on the Teacher Resource CD.



Featured Academic Vocabulary Strategies

- Idea Completions: Developing Oral Language (page 18)
- Content Links: Teaching Words (page 26)

Standards

- McREL: Students will understand the properties of and the relationships among addition, subtraction, multiplication, and division.
- McREL: Students will respond to questions and comments.
- **TESOL:** Students will use appropriate learning strategies to construct and apply academic knowledge.

Materials

- Multiplication Problems (page 90)
- chart paper
- marker
- index cards
- Making Connections (page 91)
- Show You Know About Multiplication (page 92)

Patterns of Multiplication

Focus Vocabulary Words		
Specialized Content Vocabulary	General Academic Vocabulary	
multiply	explain	
operation	relationship	
symbol		

Procedure

- Begin the lesson by reviewing with students that multiplication is repeated addition. Start with small numbers, such as 2 + 2 + 2. Show students how that type of repeated addition is the same as 2×3 . Ask students to share examples of how multiplication and addition are related.
- As you continue to introduce these concepts to students, use the **Idea Completions** strategy (page 18) to introduce the vocabulary strategy and develop students' oral language. Some examples of idea completions include the following:
 - One way to *explain* your mathematical thinking is to...
 - Addition and multiplication have a *relationship* in that...
 - A multiplication number sentence includes a *symbol* that means...
 - When you follow the process of a mathematical *operation*, you must...
 - To multiply a number means to...

Show You Know About Multiplication



Read each pair of vocabulary words. Then write a sentence that uses the words appropriately in context.

华	Vocabulary words: symbol, operation
	Student response:
**	Vocabulary words: multiply, symbol
	Student response:
3	Vocabulary words: relationship, operation
	Student response:
	Vocabulary words: operation, multiply
	Student response:
5	Vocabulary words: explain, symbol
/ 1	Student response: