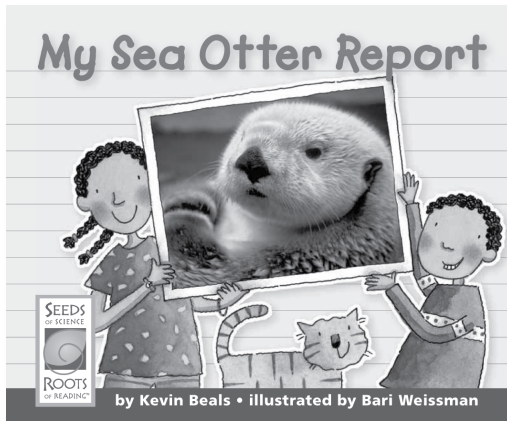


Teaching About Multiple Meaning Words

with *My Sea Otter Report*
from *Seeds of Science/Roots of Reading*[™]



Introduction

This strategy guide introduces an approach for teaching about multiple meaning words often found in science books. The ability to understand multiple meaning words—words that have different meanings depending on how, where, and in what way the word is used—helps students access important information in science texts. This guide includes an introductory section about the multiple meaning word strategy, a general overview of how to teach this strategy with many science texts, and a plan for teaching about multiple meaning words with the *Seeds of Science / Roots of Reading*[™] book, *My Sea Otter Report*.

Book Summary

My Sea Otter Report tracks the progress of a young boy as he completes a research report. Using his older sister as a sounding board, the boy narrows his topic, collects notes from various resources, and sifts main ideas from irrelevant details. In the process, the boy learns how to take notes, create topic sentences and closing sentences, and avoid common writing mistakes. He also learns that reports should have a narrow topic, be written in one's own words, and that all the sentences in a report should relate to the topic. While he is researching his report, the boy learns lots of interesting things about sea otters. The boy shares his final report and the research process he used with his class.

About This Book

Reading Level

Guided Reading Level*: J

Text Features

book description, glossary, bulleted lists, about the author, bold print, italic print, illustrations

*Guided Reading Levels based on the text characteristics from Fountas and Pinnell, *Matching Books to Readers*.

Science Background

About Scientific Reports

Reports are an authentic genre of writing in science. Scientists communicate the results of their research through writing papers and reports. Typically, they report on original findings, such as the results of a series of experiments they have conducted. Sometimes they write a review of a focused topic and/or a critique of what others have found. When scientists write reports, they avoid a narrative style and use precise language. Headings are used to help readers determine the report's most important points.

About Sea Otters

In addition to modeling report writing, *My Sea Otter Report* provides information about sea otters. Sea otters are the largest member of the weasel family. They live in shallow coastal waters off the northern Pacific. Sea otters have the thickest fur in the animal kingdom. This thick fur insulates them and helps keep them warm. Their diet consists of sea urchins, abalone, mussels, clams, crabs, snails, and about 40 other marine species. They are the only animals, other than primates and birds, known to use tools. They use small rocks or other objects to pry shellfish from rocks and hammer them open.

About Words with Multiple Meanings

Students build conceptual understandings of new words over time through multiple exposures. Students gain new information about words as they hear the words used in conversation and see them used in text. In English, words often have very different meanings depending on the context in which they are used. Readers may experience reading comprehension difficulties when encountering words that have more than one meaning. Learning to infer the intended meaning of a word based on context can help students better comprehend content-rich texts. Becoming aware of multiple meaning words and using context to determine the intended meanings is particularly valuable in science, where secondary meanings are often key to understanding important concepts. While all students can benefit from a focus on multiple meaning words, this instruction may prove especially helpful for English language learners and struggling readers.

Teaching About Words with Multiple Meanings

The following guidelines can be used with any content-rich book to teach students to consider multiple meaning words encountered during reading.

- Select a book that includes concepts related to your curriculum. Look through the book and locate three to five multiple meaning words that have a specialized meaning in the content area.
- Prepare the Multiple Meaning Words copymaster. Write the words you selected on the copymaster in the second column. In the third and fourth columns, write a simple definition based on the meaning of the word intended in the book and a simple definition based on a second meaning of the word. Be sure that the intended definition from the book sometimes appears in the Meaning 1 column and sometimes in the Meaning 2 column.
- Explain that many words have more than one meaning. Provide an example: The word *property* can mean a piece of land or the things you own. In science, a *property* is also a characteristic of something, such as its

shape or color. In many cases, a word has a unique and specialized meaning in science that is different from the way it is used in an everyday context.

- Ask students to brainstorm other words with multiple meanings. Introduce the following examples and discuss how each word is used in both an everyday context as well as a scientific context. *Fault*: everyday context—responsibility for a mistake; scientific context—a crack in a rock mass where there has been movement, such as a fault line for earthquakes. *Force*: everyday context—physical power or effort; scientific context—something that causes an object to move or change speed or direction, such as the force of gravity.
- Introduce a process that can be used to infer the meaning of a word. Model how to look for clues within, before, and after the sentence in which the target word is used. Give the following example: “The scientist wrote down information in each row of a *table*.” Ask students to identify the intended meaning of *table* in the sentence (a way of recording information inside lines and boxes). Point out that the words *information* and *row* make it clearer that the scientific meaning applies.
- Explain that the placement of the word in a sentence also helps you know if it is a noun or naming word, an adjective or describing word, or a verb or action word. Use the example: “My sister has a new *watch*.” Ask students to identify which meaning of *watch* is meant. Point out that in this sentence, *watch* is an object the sister can have. Therefore, it must be a noun, not a verb.
- Distribute the Multiple Meaning Words student sheets. Have students read the book you selected and look for the words listed on their student sheets. Ask students to record the page number on which they found the word and circle the intended meaning of each word based on the text.
- Have students discuss the strategies they used to figure out which meaning of each word fit the context of what they were reading.

Multiple Meaning Words in *My Sea Otter Report*

Word	Meaning 1	Meaning 2
break	to smash	a rest, such as recess
chest	a strong box with a lid used for storage	the upper part of the body
fit	to be the right shape or size	able to exercise without getting tired
pick	to choose	to pull from the ground, like a flower
notes	musical sounds	a short way of writing something you want to remember

Teaching Multiple Meaning Words with *My Sea Otter Report*

My Sea Otter Report provides opportunities for students to practice using context to determine intended meanings of multiple meaning words.

Getting Ready

1. Prepare the Multiple Meaning Words copymaster using the model above. Include all of the information above; the correct responses are shown in green type for your reference. Make a copy for each student.

Before Reading

1. Explain that many words in English have more than one meaning. Provide a familiar example of a word that has two different meanings. [*Wave*: everyday context—to move your hand back and forth; scientific context—ocean water moving toward the shore.]
2. Ask students to brainstorm other words with multiple meanings. Review both meanings of each word. When relevant, include an explanation of how the word is used in an everyday context as well as a scientific context.
3. Tell students there are several multiple meaning words in *My Sea Otter Report*. Distribute the Multiple Meaning Words student sheets. Tell students that they should look for these words as they read, and they should record the page number on which they found the words. [Break, pages 15, 16, 18, 19; chest, pages 16, 19; fit, page 5; pick, page 3; notes, pages 6, 8, 11, 13, 17.]

During Reading

Read *My Sea Otter Report* in a way that is consistent with your classroom routines, giving students as much independence as possible.

After Reading

1. Lead a class discussion about each of the multiple meaning words, focusing on the strategies that can be used to determine which meaning is intended. For each of the words:
 - Ask a student to share the page number on which they found the word. Direct all students to turn to that page.
 - Ask a student to read the sentence or group of sentences in which the word was found.
 - Lead a discussion with students about context clues they used to figure out which meaning applied to each word. For example, the sentence incorporating the word *break* on page 15 contains the words *use rocks* and *open*, clarifying which meaning applies in this context.
 - Have students decide whether Meaning 1 or Meaning 2 is a better match with the information introduced in the text and have them circle the intended meaning on their student sheets.
2. After discussing each word, explain that multiple meaning words are often found in science books. Remind students to pay attention to whether or not what they read in science books makes sense. Tell students that they can also use the glossaries found in many science books as a resource for determining which meaning is intended.
3. Ask students to reflect on how paying attention to multiple meaning words helps them to understand what they read, and how they can use this strategy as they read other books.

Independent Extension

Ask students to craft two sentences for each multiple meaning word found on their Multiple Meaning Words student sheets. Each sentence should illustrate one of the word's meanings. Encourage students to incorporate context clues that provide information about the intended meaning of the word.

Name _____ Date _____

Multiple Meaning Words

Title of book: _____

Find each word in the book and write down the page number(s).
Circle the meaning that is used in the book.

Page Numbers	Word	Meaning 1	Meaning 2

About Strategy Guides

A six-page strategy guide is available for each *Seeds of Science / Roots of Reading*™ student book. These strategies support students in becoming better readers and writers; they help students read science texts with greater understanding, learn and use new vocabulary, and discuss important ideas about the natural world and the nature of science. Many of these strategies can be used with multiple titles in the *Seeds / Roots* series. For more information, as well as for additional instructional resources, visit the *Seeds / Roots* website (<http://www.seedsofscience.org/strategyguides.html>).

Available Student Books for Grades 2–3

Twenty-three engaging student books are now available, each with a corresponding strategy guide. The books are part of the *Seeds of Science / Roots of Reading*™ curriculum program described on page 6. Four *Gravity and Magnetism* student books and strategy guides will be available in 2009.

Soil Habitats	
Strategy	Student Book
Using Discourse Routines with Science Texts	<i>Into the Soil</i>
Using the Cognates Strategy	<i>Walk in the Woods</i>
Connecting Science Words and Everyday Words	<i>What Are Roots?</i>
Teaching About the Nature of Science	<i>Talking with a Habitat Scientist</i>
Teaching Text Structure	<i>Handbook of Forest Floor Animals</i>
Using Text Features	<i>Earthworms Underground</i>
Taking Notes Based on Observations	<i>My Nature Notebook</i>
Making Sense of Data in Science Texts	<i>Snail Investigations</i>
Using Discourse Circles	<i>Without Soil</i>
Shoreline Science	
Strategy	Student Book
Teaching Vocabulary with Science Texts	<i>Beach Postcards</i>
Teaching Concept Mapping	<i>What Belongs on a Beach?</i>
Teaching Scientific Explanations	<i>Gary's Sand Journal</i>
Interpreting Visual Representations	<i>What's Stronger? The Forces That Cause Erosion</i>
Using Text Features	<i>What Lives on a Sandy Beach?</i>
Teaching About Multiple Meaning Words	<i>My Sea Otter Report</i>
Searching for Information in Science Texts	<i>Handbook of Sandy Beach Organisms</i>
Teaching Text Structure	<i>The Black Tide</i>
Teaching About the Nature of Science	<i>Shoreline Scientist</i>
Designing Mixtures	
Strategy	Student Book
Using Discourse Circles	<i>What If Rain Boots Were Made of Paper?</i>
Using Anticipation Guides	<i>Solving Dissolving</i>
Teaching Scientific Explanations	<i>Handbook of Interesting Ingredients</i>
Teaching Text Structure	<i>Jelly Bean Scientist</i>
Teaching About the Nature of Science	<i>Jess Makes Hair Gel</i>

Extend Learning with *Seeds of Science/Roots of Reading*™

The strategy featured in this guide is drawn from the *Seeds of Science / Roots of Reading*™ curriculum program. *Seeds / Roots* is an innovative, fully integrated science and literacy program.

The program employs a multimodal instructional model called “Do-it, Talk-it, Read-it, Write-it.” This approach provides rich and varied opportunities for students to learn science as they *investigate* through firsthand inquiry, *talk* with others about their investigations, *read* content-rich books, and *write* to record and reflect on their learning.

Take advantage of the natural synergies between science and literacy instruction.

- Improve students’ abilities to read and write in the context of science.
- Excite students with active hands-on investigation.
- Optimize instructional time by addressing goals in two subject areas at the same time.

To learn more about *Seeds of Science / Roots of Reading*™ products, pricing, and purchasing information, visit www.seedsofscience.org



Soil Habitats Science and Literacy Kit



Developed at Lawrence Hall of Science and the Graduate School of Education at the University of California at Berkeley.

Seeds of Science/Roots of Reading™ is a collaboration of a science team led by Jacqueline Barber and a literacy team led by P. David Pearson and Gina Cervetti.

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