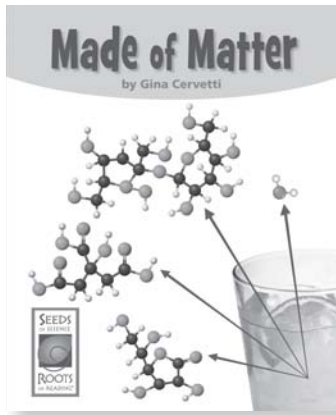


Teaching Summary Writing

with *Made of Matter*

from *Seeds of Science/Roots of Reading*®



Introduction

This strategy guide introduces an approach for teaching students to distinguish main ideas from supporting details in order to write a summary. Summary writing is often used in science to distill important ideas from a text and represent them in a shortened form. This guide includes an introductory section about summary writing, an overview of one approach for teaching students to write a summary using information found in many science texts, and a plan for teaching summary writing with the *Seeds of Science/Roots of Reading*® book *Made of Matter*.

Book Summary

Made of Matter uses photographs and diagrams to convey that everything around us is made of matter. Readers learn that all matter is made of tiny pieces called atoms and that atoms can join together to form molecules. Atoms and molecules are so tiny that they often cannot be seen by even the most powerful microscopes. However, scientists make models of atoms and molecules in order to better understand the properties of matter. This book depicts several models that help readers see that atoms and molecules, as tiny as they are, still come in different shapes and sizes, and that these differences are what give different kinds of materials different properties (such as color, texture, and taste).

Science Background

Matter is the term for all the “stuff” that the physical world is made of. Stars, trees, computers, people, and all other things in the world are made of matter. All matter is composed of tiny particles called atoms. Atoms are so small that millions of them would fit on the period at the end of this sentence. There are more than 100 different kinds of atoms. Each kind of atom is called an element. Familiar elements include gold, oxygen, and helium. Molecules are groups of atoms that are joined together through chemical bonds. Molecules of a given substance are always made of the same kinds of atoms, joined in the same ratios, arranged in the same way. Water, which is made of two hydrogen atoms and one oxygen atom, is an example of a molecule. Molecules can be as small as two atoms, but there are some molecules that are made up of hundreds or even thousands of atoms. Scientists make models to represent important information about molecules, such as what kinds of atoms they are composed of and how those atoms are arranged and connected. These models are not meant to represent how the molecule actually looks. However, they are helpful for understanding that molecules are groups of atoms that are joined together in particular ways and possess particular properties.

About This Book

Reading Level

Guided Reading Level*: Q

Key Vocabulary

atom, matter, model, molecule, substance

Text Features

bold print, captions, diagrams, glossary, illustrations, labels, photographs

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

About Summary Writing

Summarizing is a process used to distill important ideas from a text and represent them in a shortened form. Summarizing involves analyzing information and distinguishing central ideas from those that are less essential. When students summarize, they are required to think actively about the important ideas in the text. Teaching students to pinpoint the most important ideas from a text can help them better understand what they are reading. It also helps them learn to distinguish main ideas from supporting details, an essential skill in both reading and writing. Summarizing is especially important for understanding science texts, which often contain a few key ideas and several examples, or further elaboration, of those key ideas.

Teaching Summary Writing

The following guidelines can be used to teach summary writing with many content-rich texts.

- Select a short text (or a few paragraphs of a longer text) that contains content related to your curriculum. Good texts for introducing summary writing have one or two central ideas and several supporting examples.
- On the board, create a blank graphic organizer using the model on the following page.
- Tell students that readers often summarize to remember the most important ideas they read. Explain that students will read a text and that you would like them to think about the main idea as they read.
- Have students read the selected text and think about its central idea. Encourage students to ask themselves, “What is the most important idea in this text?”
- After reading, ask students to discuss the central idea in the text. Guide the class toward formulating an agreed-upon statement of the main idea. Write this main idea in the top box of the graphic organizer on the board.
- Next, explain that a written summary includes both the main idea as well as details that support the main idea.
- Select a page of the text that contains details that support the main idea the class has agreed upon. Read the page aloud, then model how to identify the supporting details. To do this, read the main idea statement followed by one of the sentences on the page you selected. Then, ask the class whether the detail supports the main idea. Guide the class toward understanding the difference between a detail that supports the main idea and one that does not. Record a relevant supporting detail on the graphic organizer on the board.
- Have students reread the text and locate other details that support the main idea. You may want to distribute the Writing a Summary copymaster, included in this guide, so that students can write down supporting details they find in the text.
- Have students share the supporting details they located in the text. As students share, record these supporting details on the board to complete the graphic organizer.
- Lead a discussion about the supporting details that students have identified. Explain that these details should provide more information about the main idea and/or help explain why the main idea is important. Confirm that this is the case with the supporting details you have written on the board.
- Demonstrate how to write a summary by transforming the notes from the graphic organizer into a paragraph. Be sure to begin the paragraph with the main idea, followed by supporting details.
- Point out that including transition words and/or phrases, such as *in this case*, *for example*, *for one thing*, *in particular*, and *specifically*, will improve the flow of the paragraph and link ideas together.
- As students read additional content-rich texts, have them use a similar process of deciding on the main idea, selecting the most important and relevant supporting details, and then drawing from both to write a summary.
- Encourage greater and greater independence as students write summaries of different texts. Emphasize that summary writing is especially useful when reading for the purpose of understanding the information presented.

Main idea: Matter is made of tiny pieces called atoms.	
Supporting detail: atoms can join together to form molecules, which are still very tiny (page 6)	Supporting detail: 100 million trillion water molecules = 1 drop of water (page 6)
Supporting detail: 7 billion trillion sugar molecules = 1 spoonful of sugar (page 7)	Supporting detail: molecules are too small to see, so scientists make models (page 8)

Teaching Summary Writing with *Made of Matter*

Made of Matter has two main ideas: Everything is made of matter, and all matter is made up of tiny pieces called atoms and molecules. The second main idea is used as an example in this guide.

Getting Ready

1. Make a copy of the Writing a Summary copymaster for each student.
2. Draw a graphic organizer on the board, using the model above as a guide. Leave the boxes blank; you will fill these in with students during class. Possible responses are in green.

During Class

1. Tell students that readers often summarize to remember the most important ideas they read. Explain that a summary is a short piece of writing that states the main idea of a text, along with details that support the main idea. Let students know that they will read a book, identify the main idea, and write a summary using this main idea.
2. Read the book in a way that is consistent with your classroom routines, giving students as much independence as possible. Encourage students to ask themselves, “What is the most important idea in this book?”
3. After students read the text once through, lead a discussion about the book’s main idea. Guide the class toward agreeing on a statement of the main idea, such as *Matter is made of tiny pieces called atoms.*

4. Write the main idea in the top box of the graphic organizer on the board.
5. Model how to identify the supporting details. Have students turn to page 6 and follow along as you read aloud. Read the main idea from the board, followed by the first sentence on page 6. Ask the class whether the detail supports the main idea. [Yes.] Continue reading and discussing whether each sentence supports the main idea. Guide students in determining that all the statements support the main idea, but that one is less central to the main idea. [Molecules aren’t just tiny—they are very, very tiny.]
6. Distribute the Writing a Summary student sheets. Have students record the main idea that you recorded on the board on their graphic organizers. As a class, choose one supporting detail from your discussion about page 6 to record on their graphic organizers. [Atoms can join together to form molecules, which are still very tiny.]
7. Have students locate other supporting details and record them in note form on their graphic organizers. Then, lead a discussion in which students share the supporting details they identified. As supporting details are shared, discuss how each supports the main idea.
8. Have students transform their notes from their graphic organizers into summary paragraphs on their student sheets. Encourage them to begin their paragraphs with the main idea followed by their supporting details. Point out that including transition words or phrases (*for example, such as, for instance*) will improve the flow of their paragraphs and link ideas together.
9. As a class, reflect on how thinking about the main idea, locating supporting details, and writing a summary helped students understand the text. Point out that summarizing is a strategy that students can use as they read other science texts.

Independent Extension

Ask students to come up with titles for their summaries. Have them create illustrations to visually convey the information they summarized.

Name _____ Date _____

Writing a Summary

Title of book: _____

Main idea:	
Supporting detail:	Supporting detail:
Supporting detail:	Supporting detail:

Using your notes above, write a summary paragraph that begins with the main idea and includes supporting details.

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* Web site (www.seedsofscience.org/strategyguides.html).

Available Student Books for Grades 4–5

Nine engaging student books are now available from *Models of Matter* and *Chemical Changes*, each with a corresponding strategy guide. The books are part of the *Seeds of Science / Roots of Reading*® curriculum program described on page 6. Eighteen student books from the remaining grade 4–5 units (*Planets and Moons* and *Aquatic Ecosystems*) are currently in development and will be available in spring and summer 2010.

<i>Chemical Changes</i>	
Strategy	Student Book
Teaching Scientific Explanation Writing	<i>Chemical Reactions Everywhere</i>
Posing Investigation Questions	<i>Handbook of Chemical Investigations</i>
Teaching Text Structure	<i>What Happens to the Atoms?</i>
Teaching Procedural Writing	<i>Bursting Bubbles: The Story of an Improved Investigation</i>
Promoting Word Consciousness	<i>Communicating Chemistry</i>
<i>Models of Matter</i>	
Strategy	Student Book
Teaching Summary Writing	<i>Made of Matter</i>
Using Roundtable Discussions	<i>Break It Down: How Scientists Separate Mixtures</i>
Interpreting Visual Representations	<i>Phase Change at Extremes</i>
Teaching About How Scientists Make Inferences	<i>Science You Can't See</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



***Models of Matter* 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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