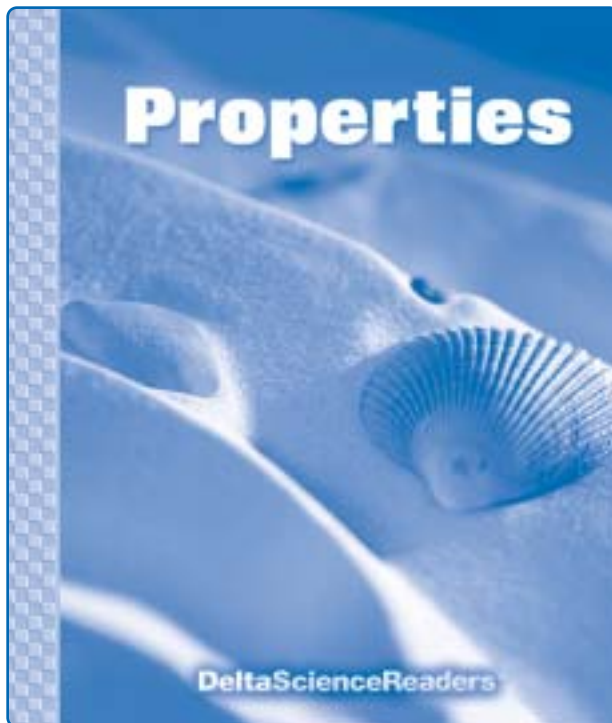


Properties



Delta Science Readers are nonfiction student books that provide science background and support the experiences of hands-on activities. Every **Delta Science Reader** has three main sections: *Think About . . .*, *People in Science*, and *Did You Know?*

Be sure to preview the reader Overview Chart on page 4, the reader itself, and the teaching suggestions on the following pages. This information will help you determine how to plan your schedule for reader selections and activity sessions.

Reading for information is a key literacy skill. Use the following ideas as appropriate for your teaching style and the needs of your students. The After Reading section includes an assessment and writing links.

OVERVIEW

In the Delta Science Reader *Properties*, students are introduced to the concept of matter and read about some of the properties that distinguish one object from another. Students explore the properties of solids, liquids, and gases. They discover that some objects sink while others float and that some objects are magnetic while others are not magnetic. The book describes how a geologist uses properties in working with rocks. Students also find out that water can be a liquid, a solid, and a gas.

Students will

- ▶ identify common properties
- ▶ sort objects by property
- ▶ observe and predict whether objects sink or float, or are attracted to a magnet
- ▶ explore the properties of water in various states
- ▶ recognize parts of a book: title, front cover, and back cover
- ▶ discuss the function of a table of contents, headings, and a glossary
- ▶ complete a vocabulary chart

READING IN THE CONTENT AREA SKILLS

- Compare and contrast objects
- Use properties to classify and categorize objects
- Draw conclusions based on observations
- Make inferences about objects based on their properties
- Predict outcomes based on properties of objects
- Use background knowledge to support comprehension
- Use illustrations and photographs to support comprehension
- Use phonics, context clues, and picture clues to decode words
- Demonstrate critical thinking
- Summarize information

NONFICTION TEXT ELEMENTS

Properties includes a title, a table of contents, headings, illustrations, photographs, labels, boldfaced terms, and a glossary.

CONTENT VOCABULARY

The following terms are introduced in context and defined in the glossary: *balance, float, gas, liquid, magnet, mass, matter, properties, senses, sink, solid.*

BEFORE READING

Build Background

Access students' prior knowledge of properties by holding up two objects that have one or two properties in common, for example, a red block and a red ball. Ask, *What can you tell me about these two objects? How are they alike? How are they different?*

Begin a class chart of words that students use to describe the objects. Group the words according to the properties they describe, such as color, shape, or size, but do not give the groups labels or headings at this time.

red	round	big	
	square	small	

Note a property that the objects have in common, for example, their red color. Ask, *Suppose I wanted to make a group of red objects. What other objects in our room might I put in this group?* If the objects students suggest can be moved, place them next to the original objects.

To stimulate additional discussion, ask questions such as these: *Do you ever sort things into groups at home? How many of you have helped sort the laundry or put away the silverware? Have you ever sorted your toys? What kinds of groups did you make?*

Preview the Book

Ask students to look at the picture on the front cover of the book. Ask, *What do you see in this picture?* (shell, rock, sand) *What are some words you might use to tell about these things?* Repeat several of the words students use to describe the objects. Tell students that these words tell about the *properties* of the objects shown on the cover. Explain that properties tell how something looks, smells, tastes, feels, or sounds. Point to and read aloud the title.

Ask, *What are some words that you think we might find in this book?* (Answers will vary.)

Flip through the book and briefly discuss a few of the photographs. Remind students that the title of the book is *Properties* and that properties tell how something looks,

smells, tastes, feels, or sounds. As students look at the illustrations, ask, *What words might you use to tell how this object looks, smells, tastes, feels, or sounds?*

Have students turn to the table of contents. Explain that the table of contents is a list that tells what is written in the book. Ask, *What do you notice about this page?* Give students a few minutes to share their observations. Point to the headings in color and explain that the book is divided into three main parts: Think About . . . , People in Science, and Did You Know? Read aloud the headings listed in the Think About . . . section and note that they are in the form of questions. Ask, *Where do you think you might find the answers to these questions?* Point to the page numbers listed after each heading. Explain that each number tells the page on which they will find information about each heading.

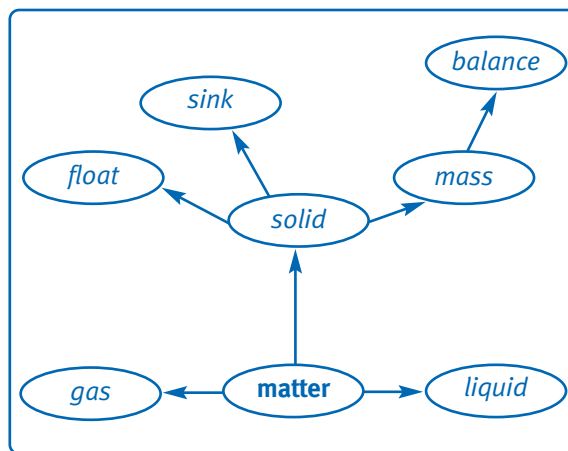
Point to the word *Glossary* at the bottom of the page and read it aloud. Tell students that a glossary is a list of words and their meanings. Have students turn to the glossary at the back of the book. Explain that the words in the glossary are important words that they will need to learn in order to understand the information in the book. Tell them, *In the book, these words are printed in dark print. The dark print tells you that you can find out what the word means by looking in the glossary.* Suggest that students watch for these words as they read the book *Properties*. Choose one word and have students find its definition in the glossary.

Preview the Vocabulary

You may wish to preview some of the vocabulary words before reading, rather than waiting to introduce them in the context of the book. One possibility is to have students draw pictures of words that they think they know. Discuss students' drawings, briefly clarifying any misconceptions. You may also need to point out that some words, such as *sink* and *matter*, have more than one meaning.

Explain that students will learn more about each word as they read the book.

Other possibilities include creating a word wall, vocabulary or picture cards, sentence strips, or a concept web. For example, you might ask students to help you develop a web showing how different words are related, such as the following:



▲ A concept web for *matter*.

Set a Purpose

Discuss with students what they might expect to find out when they read the book, based on their preview. Ask, *What kinds of things do you think you will learn about as you read this book?* Use students' predictions to set an overall purpose for reading.

GUIDE THE READING

Preview the book yourself to determine the amount of guidance you will need to give for each section. Depending on your schedule and the needs of your class, you may wish to consider the following options:

- **Whole Group Reading** Read the book aloud with a group or the whole class. Encourage students to ask questions and make comments. Pause as necessary to clarify and assess understanding.
- **Shared Reading** Pair readers with nonreaders and have them read the book together. Pause students after each

text section to clarify as needed and to discuss any questions that arise or have been answered.

- **Independent Reading** Some students may be ready to read independently. Instruct them to pause at designated stopping points, and have them rejoin the class for discussion. Check understanding by asking students to explain in their own words what they read.

Tips for Reading

- If you spread out the reading over several days, begin each session by reviewing the previous day's reading and previewing what will be read in the upcoming session.
- Begin each text section by reading or having a volunteer read aloud the heading. Discuss what students expect to learn, based on the heading. Have students examine any illustrations, read the labels, and identify any unfamiliar objects.
- Help students locate context and picture clues to the meanings of words in boldface type. Remind them that these words are defined in the glossary. Provide help with words that may be difficult to pronounce, and help students read their meanings.
- As appropriate, model reading strategies students may find helpful for nonfiction: adjust reading rate, ask questions, paraphrase, reread, visualize.

Think About . . . (pages 2–13)

Page 2 *What Is Matter?*

- Have students study the photograph on page 2. Ask, *What do you see in this photograph?*
- Read aloud the heading on page 2. Ask, *Has anyone ever heard this word matter before?* If students refer to other meanings, such as the phrase “What’s the matter?” tell them that the word *matter* can have more than one meaning. Explain that the word has a special, scientific meaning in this book.
- Invite students to find out the meaning of the word *matter* by listening as you read page 2 aloud.
- After you read the text, name several objects in the photograph. Ask, *Are trees made of matter? Is smoke made of matter? Is water made of matter?* Ask the same question about several items in the classroom, and confirm that everything around you is made of matter.

Pages 3, 4 *What Are Properties?*

- Read aloud the heading on page 3. Repeat the word *properties* and ask, *Where have you heard a word like this one?* (in the book title) Write the word *properties* on the board and ask, *Do you remember what properties are?* Suggest that students listen as you read to find out if their ideas are right.
- Read aloud the body text. Have students look at the photographs on the page as you read aloud the heading next to each pair of items. Ask about each item, for example, *What is the shape of this ball? What are some other things that have a round shape?*
- Direct students’ attention to the chart of words you started on the board. Add to the chart the descriptive words from page 3, grouping them by property and adding new columns as necessary. Read aloud the words in the “color” column. Ask, *What property do all these words tell about?* Write the heading *Color* at the top of the column. Follow the same procedure for the other columns.

