

CONNECT TO LITERACY

Discuss the Text

NGSS.1-PS1-1, CCSS.ELA-Literacy.RI.1.1, CCSS.ELA-Literacy.RI.1.2, CCSS.ELA-Literacy.RI.1.3

Have students focus on these questions about the text:

- **Prove** How could you prove that an object is a liquid? (Pour it into a container and see if it takes the shape of the container.)
- **Hypothesize** What will happen to the air inside, if you don't tie a balloon? Why? (The air will flow out. Air is a gas, and it expands to fit the container it is in. Once the balloon is open, the air expands to flow into the larger space.)
- **Critique** Suppose a friend says, "Matter can only exist in one form." Explain to your friend why this is not true. (Matter can exist in more than one form. Water can freeze to form ice. It can also evaporate to make steam.)

Provide Prompts for Response

Offer prompts that allow students to explore the text:

- Create a cause-and-effect chart to show what happens to water when it is heated and cooled.
- Create a list of matter in your house. Tell if each is a solid, liquid, or gas.
- Tell which ideas were new to you. What questions do you still have about matter?
- Review the book. Give it a rating between one and four stars and explain why it earned that rating.

Connect with Writing: Informational Text

CCSS.ELA-Literacy.W.1.3

Introduce the Text Type and Assignment Say: *A personal narrative tells about a real event that happened to the writer. While I was reading this text, I thought about how messy the ice cream cone was in the picture. I thought many of us probably have stories about something melting quickly while we were eating it! Today, we'll write to describe a time we saw something melt.*

Review Features Review the features of informational text and be sure to display these features for students' reference:

- has a beginning, middle, and end.
- tells what happened in order.
- includes many details such as who, what, where, when, and why.
- uses signal words to tell the order of events.
- provides a strong ending that provides closure.

Model the Writing Model the writing process as you begin a text that describes an event: *I'm going to tell the story of my first double scoop ice cream cone. Watch as I begin my model with an attention grabbing beginning:*

.....
I pressed my hands against the cold freezer and watched eagerly as the lady scooped up two rounded, creamy scoops of strawberry ice cream. As she reached across the counter, I wiped some sweat from my forehead, anticipating that first icy, sweet lick.
.....

Notice that I included lots of rich details to help you imagine what it felt like and looked like. Model one more paragraph of the text, showing how you think aloud as you add details that show your experience of having a melting ice cream cone.

Support Writers Display your model as students begin writing. Remind them that their writing should include sequenced events. Support them as they add rich details to their stories.

Revise and Edit Show students how to revise and edit for specific points, such as:

- a title that tells about the story.
- temporal words to signal the event order.
- vivid verbs and enticing adjectives.
- interesting statement to close the writing.

Share and Reflect Allow time for students to share their work with an authentic audience. Then ask questions to guide self-reflection:

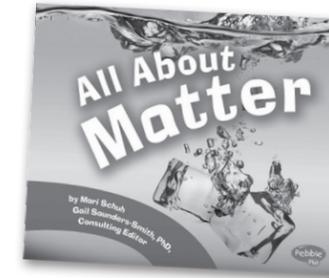
- What makes a narrative different from other types of writing?
- What features did you include in your writing?
- Which descriptive words do you think were most effective?
- What is an important thing to remember when writing a narrative?

Connecting Literacy and Content

All About Matter

Level J
Physical Science

Content: Matter—solid, liquid, gas



Objectives

Students will:

- define matter.
- interpret a text feature: headings.
- compare states of matter.
- do a close reading to answer questions about content.
- define and use academic vocabulary related to matter.
- identify inflectional endings.
- read grade-level prose with appropriate rate.
- write to describe an object.

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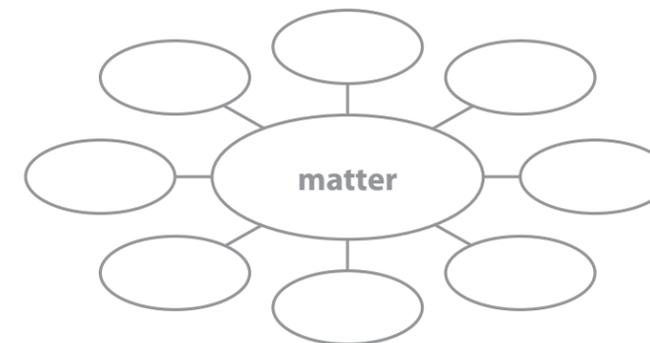
Build Content Background

Engage Students

Display several objects such as a rock, plant, and water. Say: *What do all these objects have in common?* Have students turn and talk about how they are alike. Write *matter* on the board. Explain: *The rock, plant, and water are matter. Matter is anything that takes up space. Isn't that interesting? That means the table, chair, and even you are matter!*

Use a Graphic Organizer

Draw a cluster/word web on the board and write the word *matter* in the center circle. Explain: *We use cluster webs to organize our ideas. Have students pair up to discuss what they know about matter. I'm going to write the meaning of matter on our web. As we read, let's think of other facts we learn about matter to add to our web. After reading, return to the graphic organizer so that students can confirm their understanding or change their responses.*



Introduce the Content

Preview All About Matter

Give each student a copy of the text and explain: *This book is about matter. We learned that matter takes up space. Wow! Matter can be lots of things! Look at the cover. Do you see a picture of matter? (water and ice cubes) Have students thumb through the book, paying attention to the photographs. What other kinds of matter do you think you will learn about? Allow a few moments for students to turn and talk to share their predictions.*

Preview Academic Vocabulary

CCSS.ELA-Literacy.RI.1.4

Turn to p. 6. Say: *When we read informational text, many words teach us about the topic. It is important to pay attention to the words and make sure we understand what they mean. Listen as I read. Raise your hand when you hear an important word. Reinforce that solid, liquid, and gas are important words in helping students understand matter. Writers will often give you clues to the meaning of the words. On this page, the writer has shown a photograph that has all three forms of matter. Use the photograph to define each word.*

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Discuss Text Features

CCSS.ELA-Literacy.RI.1.5

Say: *Text features are an important part of a text. In this text, the writer uses headings to help guide our reading. A heading tells us what each section of the book is about. It helps us know what is important.* Read the heading on p. 4. Say: *After reading this heading, I know this section will tell me what matter is.* Read the remaining headings. (See headings on pp. 6 and 14.) Ask students to turn to a partner and predict what these sections will be about.

Focus on the Content

NGSS.1-PS1-A

As you focus on the text, ask questions that require students to use varying depths of knowledge. Model how to determine the answer to a question before you pose additional questions. (A model is shown for the first question.)

- **Apply Concepts** (p. 5) *What matter do you see in the photograph?* (Possible responses: bed, chair, wall, trees, clock)

Model *This question is asking me to find examples of matter in the photograph. In order to do this, I need to know what matter is. On the opposite page, it says, "Everything in the whole world is matter."*

Collaborate *Think about how the text describes matter. Partners, look at the photograph together. Find as many examples of matter as you can.*

Provide Independent Practice Have students look at another photograph in the book to name examples of matter.

Summarize *Amazing! You have found many examples of matter. It really is everywhere, from trees to air to our very own beds.*

- **List** (p. 6) *What are three forms of matter?* (solid, liquid, gas)
- **Identify Cause/Effect** (p. 8) *What will happen to the shape of a solid if you put it inside a container such as a bowl?* (The solid will keep its same shape.)
- **Compare** (p. 10) *How are liquids different from solids?* (Solids keep their shapes, but liquids take the shape of a container.)
- **Classify** (p. 13) *How do you know the air in the photograph is a gas?* (It doesn't have a shape.)
- **Predict** (p. 14) *What would happen to an ice cube if it was left outside on a hot day?* (It would melt and become liquid water.)

Discuss Concepts

Ask:

- *What is an example of a solid, a liquid, and a gas?* (Answers will vary. Sample response: Toast is a solid. Orange juice is a liquid. The steam from my hot chocolate is a gas.)
- *How is melting different from freezing?* (In melting, matter changes from a solid to a liquid. In freezing, matter changes from a liquid to a solid.)
- *How have you observed matter changing forms?* (Answers will vary. Sample response: I have seen water turn to steam when it is boiled. I have seen snow melt.)

Apply Concepts Have students review the attributes of solids, liquids, and gases on pp. 9–13. Create a three-column chart. Ask students to work with a partner to describe the shape of each form of matter. Then allow them to share their descriptions. Record these on the chart. Then ask students to draw or write examples of each form of matter on sticky notes to add to the chart.

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Compare Concepts

CCSS.ELA-Literacy.RI.1.3

Introduce the Strategy Say: *Writers sometimes compare two or more people, places, or things. They tell how the things are alike and how they are different.*

Model *When I compare, I look at how all matter is the same. I can look at the definition of matter on page 6. When I read the text, I see the word all. It is a word that compares. It signals that this sentence tells a way that all matter is the same.*

solid	liquid	gas

Guide Practice Use the comparison chart created in Apply Concepts to review the differences in solids, liquids, and gases. *We learned that solids, liquids, and gases are different. Let's use what we learned to think about what would happen if an ice cube, liquid water, and steam were all poured into a cup.* Have students turn and talk to a partner to discuss what would happen with each type of matter. Then share as a class.

Close Reading

CCSS.ELA-Literacy.RI.1.2

Introduce the Strategy Say: *When you answer a question about the text, you want to make sure your answer is correct. This is why it is important to do a close reading. This means you reread the author's words on the page and use them to answer the question.*

Model Model with the **Compare** question: *The question asks me how liquids and solids are different. To find out, I will go back to see what the author says about each form of matter. The first sentence on page 8 says that solids keep their shape. This is an important difference. Watch as I use the highlighter to mark over these words so I can remember them.*

Guide Practice Provide copies of p. 10 along with highlighters. Have students highlight textual evidence to answer the **Compare** question.

Focus on Fluency

CCSS.ELA-Literacy.RF.1.4b

Model Fluent Reading Say: *When I read, I want to make sure that my reading is smooth and not choppy. One way I do this is to read chunks of words together rather than pausing after each word.* Ask students to follow along as you read the text on p. 10. Begin by reading the text choppy, pausing after each word. Then reread the text, breaking each sentence into meaningful chunks. Ask students what they noticed about your reading the second time.

Guide Practice Choose another passage from the book for students to practice fluent reading. Project the passage and highlight words that can be chunked as students suggest them. Have students pair up and read the passage to each other. Circulate and offer assistance as needed.

Study Words

CCSS.ELA-Literacy.L.1.4c

Introduce the Strategy Say: *Sometimes word parts are added to the end of a word to change its meaning. Looking for endings such as -s, -ed, and -ing as you read can help you figure out unfamiliar words.*

Practice the Strategy Write the word *melts* on the board. Point out that the ending -s has been added to the word *melt*. Now write: *melted* and *melting*. Ask students to identify the endings added to the base word. Have students turn to their partners and speak a sentence using *melt* with each inflectional ending.