Ice to Steam

Level 16

Strand: Matter

Purpose for Reading: To develop understandings that water can be solid, liquid, or gas.

Comprehension Strategies: Making links to text, making inferences, identifying cause and effect.

Vocabulary

Dictionary Words: forms of water, gas, liquid, solid Vocabulary Words: air, Earth, glass, icebergs High-Frequency Words: an, be, could, do, from, have, if, made, not, of, out, put, some, take, they, very, what, when, will, with, would

Before Reading

• Read the title and invite students to talk about the images on the front cover. Ask students if they have seen steam before. *Where? What is steam?* Tell students that steam is made from water. Ask students to describe the ways the water is different in each image on the cover photos. *What is water like when it is ice?* Guide students to the word *solid*. What is water like when it is steam? Tell students that steam is a gas. *What is water like when it comes out of the tap?* Guide students to the word *liquid*. Write the words *solid, liquid, and gas* on a chart. Ask students to suggest other things that are solid, liquid, or gas. Add them to the chart.

• Read the title page together and invite students to discuss the photo. *Is the water in this photo solid, liquid, or gas?*

Introduce the Picture Dictionary

• Ask students to turn to the picture dictionary. Read and discuss the photos and labels. Ask

Theme: Change

students to describe the form of water in each photo. Ask questions such as, *What is giving the water from the tap its shape? What is causing the steam? Why does the water in ice cubes keep its shape?*

Take a Photo Walk

• Pages 4–5: Invite students to look at the photos and read the captions. What turns the water to ice in Antarctica? What is a geyser? What is happening under the ground to make the steam?

• Pages 6–7: Ask students to look at the photo and read the caption. *Is this water solid, liquid, or gas? What is giving the water its shape?*

• Pages 8–9: Invite students to read the caption and discuss the photo. Are the ice cubes solid, liquid, or gas? How long do ice cubes keep their shape? What would make these ice cubes melt faster? When they melt, are they solid, liquid, or gas?

• Pages 10–11: Invite students to read the caption and talk about the water in the photo. *Is the water a solid, liquid, or gas? What is happening to the pot to turn the water to steam?*

• Pages 12–13: Invite students to look at the diagram and read the title. Read and discuss the diagram. Clarify where needed.

• Pages 14–15: Have students read the title and talk about what these pages show. *Why are the steps in the instructions numbered?*

Read the Book

• Ask students to turn to the cover and read the title independently.

• Turn to pages 2–3. Read the dictionary words and the sentences on page 3.

• Turn to pages 4–5. Ask students to read these pages independently. *Remember to use your eyes, and just point if you need help to check.*

• Remind students to check the diagram to support their understanding.

• Ask students to continue reading the book independently. Provide support as needed.

After Reading

Comprehension

• Invite students to return to the book and talk about how water changes form. Support them to locate answers in the book and build understandings of cause and effect. Prompt with questions such as, At what temperature does water freeze? What do you think might cause the water to be cold in Antarctica? What effect does the freezing temperature have? At what temperature does water boil? What does this tell you about the temperature inside a geyser? What causes the heat from a geyser? What is the effect of the heat?

• Support students to infer from the text. Prompt with questions such as, *Do you think you could put* your hand right above a geyser? Why not? Do you think you could go swimming in Antarctica? What do you think would happen?

Vocabulary and Word Recognition

• Have students find the word *water*. Write the word *water* on the board and ask students to think of sentences containing the word. Write them on the board. Ask students to write the word *water*, and then check it for accuracy. Have them write it five times, saying it as they write it.

• Have students find the word *cannot* on page 10.

Ask them if they can shorten this word. Write the word *can't* on the board. Tell students that this is called a contraction. Tell them that the apostrophe is used to indicate that one or more letters have been left out. Have students identify the letters omitted as *cannot* becomes *can't*. Have students suggest more contractions they know. Invite volunteers to the board to write the contractions.

Oral Language

• Have students work in pairs using the pictures on pages 14–15 to tell their partner how to make ice cubes.

Writing

• Have students write three sentences about water. Write one sentence about water as a solid, another about water as a liquid, and a third about water as a gas.

Creative Extension Activities

• Have students make ice cubes and do an experiment. Have them time how long it takes the ice cubes to melt when placed in a warm place and how long it takes them to melt in a cool place.

• Have students observe and time how long a measure of water takes to boil and then to completely evaporate when boiled in a pot.

Independent Follow-Up Activities

- Reread the book to a partner to build fluency.
- Complete the activities on page 16.
- Complete the photocopiable activities.

From Ice to Steam	BLM I
Name:	
Use the book to write an interesting fact	about water
in each of its forms.	
Liquid:	
Solid:	
Gas:	
Complete the sentences.	
Ice looks like	
Ice feels like	·
Ice tastes like	

Name:

Use the book to help you answer the questions.

What are the three forms of water?

Which form of water has its own shape?

At what temperature does water freeze?

At what temperature does water boil?

Why is it not safe to swim in freezing water?