

## TEACHING NOTES

**Book title:** Changing States

**Series:** Do It Yourself

*What is the fourth state of matter? Why do puddles shrink in the sunshine? How do greenhouse gases threaten life on Earth? 'Do It Yourself' offers an exciting new approach to understanding and investigation. Each book helps you conduct your own experiments and activities to learn more about the world around you.*



### **Text Structure: Compare and Contrast**



Students will better understand the characteristics and features of a solid and a liquid by paying attention to how the text is structured to compare and contrast these two or concepts. Have students use the reproducible graphic organizer to record the similarities and differences between a solid and a liquid. Read page 11 and 17 with students and model how you would record information on the Venn diagram. For example, after reading page 11, you might write, “molecules packed together closely” in the solid section. Remind students that the section where the ovals overlap is for information that is common to both concepts. Depending on the age and ability of your students, have them read the text and complete the chart independently, in pairs, or as a whole class activity.



### **Text Feature: Index**

Have students turn to the index on page 48 and discuss how it provides an alphabetical listing of important topics and terms contained in the text. Model how the index can be used to locate where specific information can be found in the text. For example, if a student is doing a report on carbon dioxide, he or she can pick up this book and flip to the index to quickly find out that the text is a resource and that the information is located on pages 26, 39, 40, and 41.



### **Comprehension Strategy: Monitoring and Repairing Understanding**

Remind students that it is their job as readers to pay attention to when reading makes sense and when it doesn't. When the reading doesn't make sense, good readers stop and figure out how to fix the problem. Ask students to name things that readers do when they don't understand what they read, such as rereading the section, reading ahead or back to other sections, stopping to think, looking up unknown words, visualizing the text, looking at photos and headings, or talking about the text with someone else. Model a strategy, for example:

**Think aloud** *“When I first read this paragraph on page 37, I didn't understand what I read. I looked at it again, and realized that I didn't know what atmosphere meant. So, I*

*looked at the rest of the section and tried to figure out its meaning. Then I checked the definition in the glossary. Now, knowing what the word means helps me better understand the rest of this section."*



### **Word Study: Vocabulary Bingo**

List the words atom, combustion, dense, element, erosion, fungus, mass, mineral, plasma, pollution, species, and volume on the board, and have students record them on the reproducible in random order. Play the game by giving a definition or a clue for each word and have the students check off or mark the box with that word. The first student to mark three words in a row wins. You might then have that student give clues for the next game.



### **Writing and Responding: Description**

Have students write a description of a solid, liquid, or gas. Encourage them to use observational skills as well as information and vocabulary to describe their solid, liquid, or gas.

 *Indicates a graphic organizer is linked to this activity.*

NAME \_\_\_\_\_

