NAME DATE CLASS

Chapter 14

ENRICHMENT

Use with Section 1

• Earth's Atmosphere

Observing the Effects of Air Pressure

The activity at the beginning of the chapter showed how temperature affects the density of air. When the air in a can became heated by boiling water, it expanded and much of it escaped out of the can before the top was put on. As the air that was left inside cooled, it became denser and took up less space. Because the air pressure on the outside of the can was higher than the pressure inside the can, the sides of the can collapsed. You could see what a powerful force air pressure can be. Here's another experiment about the power of air pressure.

Materials 

glass bottle
sheet of paper
long match or paper drinking straw and match
hard-boiled egg, peeled

Procedure

1. Be sure that the opening at the top of the glass bottle is slightly smaller than the diameter of the egg.
2. Crumple the sheet of paper into a ball and drop it into the bottle.
3. Light the end of the paper drinking straw or the long match. Put the paper, burning end first, in the bottle. Be careful!
4. Let the paper burn until the flame burns out.
5. Set the peeled hard-boiled egg over the opening at the top of the bottle with the pointed end of the egg down.

Analyze

1. What happened to the egg? _____
2. What caused the egg to do this? _____

Conclude and Apply

3. How can you get the egg out? _____