

Skills Worksheet

## Directed Reading B

### Section: What Is Matter? (pp. 78–83)

#### MATTER

1. What characteristic do a human, hot soup, the metal wires in a toaster, and the glowing gases in a neon sign have in common?

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2. What is matter?

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#### MATTER AND VOLUME

- \_\_\_\_\_ 3. Which of the following units would be best for expressing the amount of water in a lake?

- a. grams (g)
- b. liters (L)
- c. meters (m)
- d. milliliters (mL)

- \_\_\_\_\_ 4. Which of the following units would be best for expressing the volume of soda in a can?

- a. centimeters (cm)
- b. grams (g)
- c. liters (L)
- d. milliliters (mL)

5. What is volume?

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6. Things with \_\_\_\_\_ cannot share the same space at the same time.

7. To measure the volume of water in a graduated cylinder, you should look at the bottom of the curve at the surface of the water called

the \_\_\_\_\_.

8. The volume of solid objects is commonly expressed

in \_\_\_\_\_ units.

9. What three dimensions are needed to find the volume of a rectangular solid?

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**Directed Reading B** *continued*

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**10.** How could the volume of a 12-sided object be found using water and a graduated cylinder?

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**11.** If the volume of water displaced by the 12-sided object is 8 mL, what is the volume of the 12-sided object in cubic units?

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**MATTER AND MASS**

\_\_\_\_\_ **12.** The measure of the amount of matter in an object is its

- a. volume.
- b. length.
- c. meniscus.
- d. mass.

\_\_\_\_\_ **13** The measure of the gravitational force on an object is its

- a. mass.
- b. length.
- c. weight.
- d. volume.

\_\_\_\_\_ **14.** The SI unit of mass is the

- a. newton.
- b. liter.
- c. kilogram.
- d. pound.

\_\_\_\_\_ **15.** One newton is about equal to the weight of an object that has

- a. a mass of 100 g on the moon.
- b. a volume of 1 m<sup>3</sup> on Earth.
- c. a mass of 1 kg on Earth.
- d. a mass of 100 g on Earth.

**16.** What is the only way to change the mass of an object?

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