Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading A

Section: What Is Matter?

MATTER

_____ 1. What unit would you use to measure the amount of water in a lake?
a. grams (g) c. meters (m)
b. liters (L) d. milliliters (mL)

_____ 2. What unit would you use to measure the volume of soda in a can?
a. centimeters (cm) c. liters (L)
b. grams (g) d. milliliters (mL)

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

_____

4. What is matter?

_____

MATTER AND VOLUME

5. What is volume?

_____

6. Things with _____ cannot share the same space at the same time.

7. To measure a 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 rectangular solid?

_____

VOLUME OF AN IRREGULARLY SHAPED SOLID OBJECT

10. How could the volume of a gold nugget be found using water and a graduated cylinder?

_____

11. Why can you express the volume of the gold nugget measured by this method in cubic units?

_____

MATTER AND MASS

_____ 12. The amount of matter in an object is its
a. volume. c. meniscus.
b. length. d. mass.

_____ 13. The SI unit of mass is the
a. newton. c. kilogram.
b. liter. d. pound.

_____ 14. The SI unit of weight is the
a. newton. c. kilogram.
b. liter. d. pound.

_____ 15. One newton is equal to the weight of an object that has
a. a mass of 100 g on the moon.
b. a volume of 1 m^3 on Earth.
c. a mass of 1,000 g on Earth.
d. a mass of 100 g on Earth.

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

_____

_____

THE DIFFERENCE BETWEEN MASS AND WEIGHT

For each description, write whether it applies to mass or to weight.

_____ 17. is always constant no matter where the object is located.

_____ 18. is a measure of the gravitational force on an object.

_____ 19. is measured using a spring scale.

_____ 20. is expressed in grams (g), kilograms (kg), or milligrams (mg).

_____ 21. is expressed in newtons (N).

_____ 22. is less on the moon than on Earth.

_____ 23. is a measure of the amount of matter in the object.