

*Please, DO NOT WRITE ON.

Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading A

COPY QUESTIONS
AND ANSWER
ON LINED PAPER
OR YOUR NOTEBOOK.

Section: Chemical Properties

CHEMICAL PROPERTIES

Write the letter of the correct answer in the space provided.

- _____ 1. The property of matter that describes its ability to change into new matter with different properties is known as a(n)
a. chemical change. c. chemical property.
b. physical change. d. physical property.
- _____ 2. The chemical property that describes the ability of two or more substances to combine to form new substances is called
a. reactivity. c. density.
b. flammability. d. solubility.
- _____ 3. The ability of a substance to burn is a chemical property known as
a. reactivity. c. density.
b. flammability. d. solubility.
- _____ 4. An iron nail is reactive with
a. rubbing alcohol.
b. other iron nails.
c. wood in a house.
d. oxygen in the air.
- _____ 5. Which of the following statements is true about characteristic properties of matter?
a. Characteristic properties depend on the size of the sample.
b. Characteristic properties may be either physical or chemical properties.
c. Characteristic properties only involve chemical properties.
d. Characteristic properties only involve the physical nature of the matter.
6. Describe the ways that burning changes the nature of wood.

7. A substance always has _____ properties, even though they are difficult to observe.
8. Scientists use _____ properties to help them identify and classify matter.

Directed Reading A *continued*

CHEMICAL CHANGES AND NEW SUBSTANCES

- _____ 9. Chemical changes are the process by which substances
- a. move from place to place.
 - b. change into new substances.
 - c. change in their physical properties.
 - d. become greater in mass.
- _____ 10. Which of the following would NOT be considered an example of a chemical change?
- a. the bubbling action of effervescent tablets
 - b. the green coating on copper statues
 - c. the melting of a Popsicle
 - d. the burning of rocket fuel
11. How do you know that baking a cake involves chemical changes?

12. List some signs or clues that show that a change you are observing is a chemical change.

13. Because _____ change the identity of the substances involved, they are hard to reverse.

14. How could some chemical changes be reversed? Give an example.

Directed Reading A *continued*

PHYSICAL VERSUS CHEMICAL CHANGES

- _____ 15. What is the most important question to ask to determine whether a change is physical or chemical?
- a. Was there a color change?
 - b. Did the composition change?
 - c. Was there a change in size?
 - d. Did the change involve a change in state?
- _____ 16. What is the name of the process by which water is broken down into hydrogen and oxygen using an electric current?
- a. electrolysis
 - b. decomposition
 - c. reactivity
 - d. reversibility
17. During _____, the composition of a substance does not change.

Identify whether the following changes are physical changes or chemical changes. Label each change either PC for physical change or CC for chemical change.

- _____ 18. Mixing vinegar and baking soda
- _____ 19. Grinding baking soda into a powder
- _____ 20. Souring milk
- _____ 21. Melting an ice cream bar
- _____ 22. Burning a wooden match
- _____ 23. Shooting off fireworks
- _____ 24. Mixing drink mix into water
- _____ 25. Bending an iron nail

**Please - Do Not Write on **

Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading B

*Write Questions
And Answer*

on lined paper.

Section: What Is Matter?

MATTER

Circle the letter of the best answer for each question.

1. What do humans, hot soup, and a neon sign have in common?
 - a. They are brightly colored.
 - b. They are found in space.
 - c. They are made of matter.
 - d. They have the same volume.
2. What has mass and takes up space?
 - a. volume
 - b. matter
 - c. weight
 - d. space

MATTER AND VOLUME

3. What does the word *volume* mean?
 - a. the amount of matter
 - b. an effect of gravity
 - c. the amount of space
 - d. an effect of mass
4. Why can't another CD fit in a rack once it is completely filled?
 - a. because all the space taken up
 - b. because the CD has mass
 - c. because space has three dimensions
 - d. because the CD is too large

Liquid Volume

5. What unit is used to measure the volume of water in a lake?
 - a. grams (g)
 - b. liters (L)
 - c. meters (m)
 - d. milliliters (mL)
6. What unit would you use to measure the volume of soda in a can?
 - a. centimeters (cm)
 - b. grams (g)
 - c. liters (L)
 - d. milliliters (mL)

Directed Reading B *continued*

The Difference Between Mass and Weight

Circle the letter of the best answer for each question.

14. Which of the following is a measure of gravitational force?
- a. inertia
 - b. mass
 - c. volume
 - d. weight
15. What is the force called that keeps objects from floating into space?
- a. mass
 - b. inertia
 - c. gravitational force
 - d. weight
16. Which of the following is true about the weight of an object?
- a. Weight is measured with a balance.
 - b. Weight is the same on the moon.
 - c. Weight is the same as mass.
 - d. Weight depends on location in the universe.
17. Which of the following is true about the mass of an object?
- a. Mass depends on location.
 - b. Mass is a measure of gravity.
 - c. Mass is always the same.
 - d. Mass depends in part on weight.
18. How could you change the mass of an object?
- a. move it to the moon
 - b. take some of its matter away
 - c. make Earth spin faster
 - d. change the object's weight

Measuring Mass and Weight

19. What is the weight on Earth of an object with a mass of 100 g?
- a. 1 newton
 - b. 1 cm²
 - c. 1 mL
 - d. 1 kilogram

