Name _____ Class _____ Date _____

Skills Worksheet

# Directed Reading B

## Section: Chemical Properties (pp. 90–95)

### IDENTIFYING CHEMICAL PROPERTIES

chemical property

**1.** A property of matter that describes its ability to change into new matter with different properties is known as a(n)

**a.** chemical change.
**b.** physical change.
**c.** chemical property.
**d.** physical property.

reactivity

**2.** The chemical property that describes the ability of substances to change and form one or more new substances is called

**a.** reactivity.
**b.** flammability.
**c.** density.
**d.** solubility.

flammability

**3.** The ability of a substance to burn is a chemical property known as

**a.** ductility.
**b.** flammability.
**c.** density.
**d.** solubility.

oxygen in the air

**4.** An iron nail is reactive with

**a.** rubbing alcohol.
**b.** other iron nails.
**c.** wood in a house.
**d.** oxygen in the air.

b.

**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 involve only chemical properties.
**d.** Characteristic properties involve only the physical nature of the matter.

**6.** Describe how burning changes the nature of wood.

Burning of wood is a chemical reaction in which the sugar (hexagon molecules) of $C_6H_{12}O_6$ are combusted into $CO_2$ (carbon dioxide) and $H_2O$ (water).

**7.** Observing the chemical properties of a substance involves changing the identity of the substance.

**8.** The properties that are most useful in identifying a substance are called characteristic properties.

## CHEMICAL CHANGES AND NEW SUBSTANCES

b. **9.** Chemical changes are the processes by which substances
- **a.** move from place to place.
- **b.** change into new substances.
- **c.** change their physical properties.
- **d.** become greater in mass.

c. **10.** Which of the following would NOT be considered an example of a chemical change?
- **a.** the bubbling action of effervescent tablets
- **b.** the formation of green coating on copper statues
- **c.** the melting of an ice cream bar
- **d.** the burning of rocket fuel

**11.** How do you know that baking a cake involves chemical changes?

The cake batter changes color, it expands with Carbon dioxide from the combustion of some of the sugar.

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

A change in color, odor, and fizzing and foaming and explosion or fire.

**13.** An increase in the surrounding temperature is felt when a chemical change liberates heat.

**14.** A decrease in the surrounding temperature is felt when a chemical change absorbs heat.

**15.** Because irreversible chemical changes cause a change in the identity of the substances involved, they are hard to reverse.