Name _____ Class _____ Date _____

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

Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading A CH 1, 3 (p16-21)

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.
b. physical change.
c. chemical property.
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.
b. flammability.
c. density.
d. solubility.

_____ 3. The ability of a substance to burn is a chemical property known as
a. reactivity.
b. flammability.
c. density.
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.

Name _____ Class _____ Date _____

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.

_____

_____

_____

_____

Name _____ Date _____

Identifying Physical and Chemical Changes

Read each description and classify it as a physical or chemical change.

1. _____ Iron rusts.
2. _____ Sodium hydroxide dissolves in water.
3. _____ A safety match ignites and burns.
4. _____ A cube of ice melts to form a puddle of water.
5. _____ Icicles form at the edge of a roof.
6. _____ Water is heated and changed into steam.
7. _____ Milk goes sour.
8. _____ A chocolate bar melts in the sun.
9. _____ Acid on limestone produces carbon dioxide gas.
10. _____ Vinegar and baking soda react.
11. _____ A tea kettle begins to whistle.
12. _____ Wood and leaves rot to form humus.