Name _____ Date _____ Class _____

Describing Matter *(continued)*

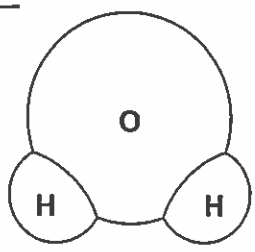
Properties of Matter (pp. 35–37)

1. The study of the properties of matter and how matter changes is called _____.
2. Is the following sentence true or false? Table sugar and table salt are pure substances. _____
3. A(n) _____ property is a characteristic of a pure substance that can be observed without changing the substance into something else.
4. Complete the table by classifying each property as either a physical or chemical property.

Properties of Matter	
Property	**Physical or Chemical?**
Ability to burn	**a.**
Color	**b.**
Flexibility	**c.**
Ability to tarnish	**d.**
Ability to freeze	**e.**
Ability to rust	**f.**

Elements (pp. 38–39)

5. A pure substance that cannot be broken down into any other substances by chemical or physical means is a(n) _____.
6. Is the following sentence true or false? The basic particle from which all elements are made is a molecule. _____
7. When atoms combine, the force of attraction that holds them together is a(n) _____.
8. How many atoms of hydrogen are in this water molecule? _____



Compounds (p. 40)

9. What is a compound?

_____

_____

_____

10. What is the ratio of atoms in carbon dioxide, or CO_2?

_____

11. What is the chemical formula of carbon monoxide?

_____

12. Is the following sentence true or false? When elements chemically combine, they usually form compounds that have properties that are similar to those of the uncombined elements.

_____

Mixtures (pp. 41–43)

13. A(n) _____ is made of two or more substances that are together in the same place but are not chemically combined.

14. What are two ways in which mixtures differ from compounds?

a. _____

_____

b. _____

_____

15. Circle the letter of each mixture below that is heterogeneous.

a. damp soil
b. sugar water
c. brass
d. salad

16. Is the following sentence true or false? A solution is an example of a homogeneous mixture. _____

17. List four methods that can be used to separate mixtures and give an example of each method.

_____

_____

_____

_____

_____

_____

Name _____ Date _____ Class _____

Describing Matter

Understanding Main Ideas

Classify each of the following properties by writing physical *or* chemical *on the line.*

_____ 1. Texture

_____ 2. Ability to react with other substances

_____ 3. Ability to conduct heat

_____ 4. Hardness

_____ 5. Lack of ability to rust

_____ 6. Physical state

Answer the following questions on the lines provided.

7. How are elements and compounds related?

_____

_____

_____

8. What are two ways in which mixtures differ from compounds?

_____

_____

_____

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition on the line beside the term in the left column.

____ 9. matter

____ 10. chemistry

____ 11. substance

____ 12. atom

____ 13. chemical bond

____ 14. molecule

____ 15. chemical formula

____ 16. heterogeneous

____ 17. homogeneous

____ 18. solution

a. the basic particle of an element

b. a mixture in which you can see the different parts

c. anything that has mass and takes up space

d. a particle formed when two or more atoms combine

e. a single kind of matter that is pure

f. a kind of homogeneous mixture

g. the study of the properties of matter

h. any mixture in which different parts cannot be seen

i. tells the elements and ratio of atoms in a compound

j. the force of attraction between two atoms