Name _____ Date _____ Class _____

Describing Matter

This section describes the kinds of properties used to describe matter. It also defines elements and contrasts compounds and mixtures.

Use Target Reading Skills

Write a definition of each Key Term in your own words.

matter: _____

chemistry: _____

substance: _____

_____

physical property: _____

_____

chemical property: _____

_____

element: _____

_____

atom: _____

_____

chemical bond: _____

_____

molecule: _____

_____

compound: _____

_____

chemical formula: _____

_____

mixture: _____

_____

heterogeneous mixture: _____

_____

homogeneous mixture: _____

_____

solution: _____

_____

Describing Matter *(continued)*

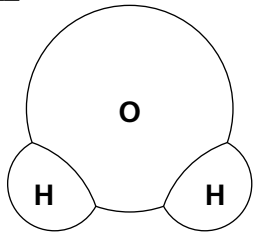
Properties of Matter

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

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

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 form compounds that have properties that are similar to those of the uncombined elements. _____

Mixtures

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

_____

_____

_____

_____