

Introduction to Matter • Review and Reinforce

# 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            | a. the basic particle of an element                    |
| ___ 10. chemistry        | b. a mixture in which you can see the different parts  |
| ___ 11. substance        | c. anything that has mass and takes up space           |
| ___ 12. atom             | d. a particle formed when two or more atoms combine    |
| ___ 13. chemical bond    | e. a single kind of matter that is pure                |
| ___ 14. molecule         | f. a kind of homogeneous mixture                       |
| ___ 15. chemical formula | g. the study of the properties of matter               |
| ___ 16. heterogeneous    | h. a mixture in which different parts cannot be seen   |
| ___ 17. homogeneous      | i. tells the elements and ratio of atoms in a compound |
| ___ 18. solution         | j. the force of attraction between two atoms           |

1. \_\_\_\_\_ True or False, the basic particle from which all elements are made is a molecule.
2. How many atoms of hydrogen are in a water ( $H_2O$ ) molecule? \_\_\_\_\_
3. What is the ratio of atoms in carbon dioxide or  $CO_2$ ? \_\_\_\_\_
4. \_\_\_\_\_ True or False, When elements chemically combine, they form compounds that have properties that are similar to those of the uncombined elements.
5. A \_\_\_\_\_ is made of two or more substances that are together in the same place but are not chemically combined.
6. \_\_\_\_\_ True or False, A solution is an example of a homogeneous mixture.
7. Circle the letter of each mixture below that is heterogeneous.
  - A. Damp soil
  - B. Sugar water
  - C. Brass
  - D. Salad