

Skills Worksheet

Directed Reading B**Section: Compounds** (pp. 138–141)

1. List three examples of compounds you encounter every day.

1. H₂O = water
2. NaCl = salt
3. CO₂ = carbon dioxide

COMPOUNDS: MADE OF ELEMENTS

2. When two or more elements are joined by chemical bonds to form a new pure substance, the new substance is called a(n) **compound**.
3. A compound is different from the **elements** that make it up.
4. A(n) **chemical reaction** is the process by which substances change into new substances.

PROPERTIES OF COMPOUNDS

- b.** 5. Which of the following statements is true about the properties of compounds?
- a. A property of all compounds is to react with acid.
 - b. Each compound has its own physical properties.
 - c. Compounds cannot be identified by their chemical properties.
 - d. A compound has the same properties as the elements that form it.
- c.** 6. Which of the following is NOT true about compounds?
- a. Compounds are combinations of elements that join in specific ratios according to their masses.
 - b. The mass ratio of a specific compound is always the same.
 - c. Compounds are random combinations of elements.
 - d. Different mass ratios mean different compounds.
7. Sodium and chlorine can be extremely dangerous in their elemental form. How is it possible that we can eat them in a compound?

Diatomic chlorine element is poisonous, because the two green spheres stuck together is a harmful element. Pure sodium is a solid explosive substance when it reacts with water. Sodium is many orange spheres. Only one green and one sodium together make salt, it is safe, because it is a compound and has new chemical properties.

Directed Reading B *continued*

Match the correct description with the correct term. Write the letter in the space provided.

chlorine

8. a poisonous, greenish yellow gas

a. sodium chloride

sodium chloride

9. table salt

b. chlorine

sodium

10. a soft, silvery white metal that reacts violently with water

c. sodium

BREAKING DOWN COMPOUNDS

11. What compound helps give carbonated beverages their “fizz”?

carbonic acid turning into carbon dioxide bubbles

12. Which elements make up the compound that helps give carbonated beverages their “fizz”?

Carbon, Oxygen, and Hydrogen

13. The only way to break down a compound is through a(n)

chemical

change.

COMPOUNDS IN YOUR WORLD

14. Aluminum is produced by breaking down the compound

aluminum oxide

15. Plants use the compound Carbon dioxide and water in photosynthesis to make carbohydrates.