Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading B

Section: Compounds (pp. 138–141)

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

1. Water (H2O)
2. Salt (NaCl) sodium chloride
3. Sugar, (C6H12O6) glucose

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 change 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?

Salt, even though it is made of two harmful elements,
When they are bonded together into a salt crystal,
it has it's own unique chemical properties.
The salt breaks up into your saliva and becomes
aqueous ionic forms of the elements.

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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

sodium chloride **9.** table salt

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

a. sodium chloride
b. chlorine
c. sodium

BREAKING DOWN COMPOUNDS

11. What compound helps give carbonated beverages their "fizz"?

carbonic acid (turns into carbon dioxide bubbles that fizz)

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

HCO3- = carbonic acid
H=hydrogen
C=carbon
O=oxygen

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 bauxite, or aluminum oxide, Al2O3

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