Section 2: Compounds (p. 86)

1. When two or more elements are chemically combined to form a new pure substance, we call that new substance a

_____.

2. A compound is different from the elements that reacted to form it. True or False? (Circle one.)

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

_____

Elements Combine in a Definite Ratio to Form a Compound (p. 86)

4. Which of the following is NOT true about compounds?

a. Compounds join in specific ratios according to their masses.
b. Mass ratios can be written as a ratio or a fraction.
c. Compounds are random combinations of elements.
d. Different mass ratios mean different compounds.

Every Compound Has a Unique Set of Properties (p. 87)

Mark each of the following statements *True* or *False.*

5. _____ Each compound has its own physical properties.

6. _____ Compounds cannot be identified by their chemical properties.

7. _____ A compound has the same properties as the elements that form it.

8. Sodium and chlorine can be extremely dangerous in their elemental form. So how is it possible that we can eat them in a compound?

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Compounds Can Be Broken Down into Simpler Substances (p. 88)

9. How does opening a can of soda create the "fizz" in the drink?

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10. A physical change is the only way to break down a compound.

True or False? (Circle one.)

11. Look at the Physics Connection. The chemical process used to obtain industrial products, such as hydrogen peroxide, is called _____.

Compounds in Your World (p. 89)

12. Which of the following methods are used by living organisms to obtain nitrogen, an element needed to make proteins? (Circle all that apply.)

- **a.** Bacteria on the roots of pea plants make compounds from atmospheric hydrogen.
- **b.** Plants use nitrogen compounds in the soil.
- **c.** Animals digest plants or animals that have eaten plants.
- **d.** Plants take in carbon dioxide to make sugar.

13. What do most fertilizers, food preservatives, and medicines have in common?

_____

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_____

14. The compound _____ is broken down to produce the element used in cans, airplanes, and building materials.

Review (p. 89)

Now that you've finished Section 2, review what you learned by answering the Review questions in your ScienceLog.