

# Directed Reading A

## Section: Forming New Substances

1. The substance that turns leaves green is called \_\_\_\_\_.
2. Why are leaves orange and yellow in the fall?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### CHEMICAL REACTIONS

3. A process in which one or more substances change to form new substances is called a(n) \_\_\_\_\_.
4. How do the properties of the new substances compare with the properties of the original substances after a chemical change takes place?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. A solid substance that is formed in a solution is called a(n) \_\_\_\_\_.

Match the correct example of a chemical reaction with the correct clue. Write the letter in the space provided.

- |                                       |                    |
|---------------------------------------|--------------------|
| _____ 6. Thermal energy is given off. | a. color change    |
| _____ 7. Precipitate forms.           | b. energy change   |
| _____ 8. Nitrogen dioxide forms.      | c. solid formation |
| _____ 9. Bleach spots form.           | d. gas formation   |

**Directed Reading A *continued***

**10.** When a gas is given off as a liquid boils, it is an example of a \_\_\_\_\_ change, not a \_\_\_\_\_ reaction.

**11.** What is the most important sign that a chemical reaction is occurring?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**BONDS: HOLDING MOLECULES TOGETHER**

**12.** What is a chemical bond?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**13.** How do new substances form during a chemical reaction?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**14.** What causes chemical bonds to break?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**15.** How many atoms make up a diatomic molecule?  
\_\_\_\_\_

**16.** What harmless substance forms from the reaction of sodium and chlorine gas?  
\_\_\_\_\_