NAME DATE CLASS

Chapter 6

REINFORCEMENT

Use with Section 1

• Describing a Chemical Reaction

Complete each item.

1. Chemical changes in a substance result in _____

_____

2. Physical changes in a substance result in _____

_____

3. A chemical reaction begins with substances called _____ and ends with substances called _____ .

4. In a word equation, the substances on the left of the arrow are the _____ , and the substances on the right side of the arrow are the _____ . The arrow should be read as _____ .

5. Give two reasons why scientists prefer to use chemical equations instead of word equations?

a. _____

b. _____

6. What do the subscripts in a chemical equation tell about the equation?

_____

7. Suppose you have a holiday celebration and over the evening six logs are burned in a fireplace. All that's left is ashes, but you know that there are just as many atoms as there were before—they're just in a different form. Explain how you know that.

_____

_____

_____

8. The fire in the fireplace is an example of an endothermic reaction. Explain what happens in an exothermic reaction. _____

_____

9. In one of the lab experiments you observed, water was split into hydrogen and oxygen in an endothermic reaction. Explain what happens in an endothermic reaction.

_____

10. If the equation below is balanced, write *Yes* in the line provided. If it is not balanced, write *No*.

_____ **a.** $2Na + 2H_2O \rightarrow 2NaOH + H_2$

_____ **b.** $4Al + 3O_2 \rightarrow Al_2O$

_____ **c.** $NH_4OH + HC_2H_3O_2 \rightarrow NH_4C_2H_3O_2 + H_2O$

_____ **d.** $2Al + 6NaOH \rightarrow 2Na_3AlO_3 + 2H_2$