Name _____ Date _____ Class _____

Describing Chemical Reactions

Understanding Main Ideas

Balance the equations on the lines below. State whether the reaction is a synthesis, decomposition, or replacement reaction.

Given Equation	Balanced Equation	Type of Reaction
1. $FeS + HCl \rightarrow FeCl_2 + H_2S$	**a.**	**b.**
2. $Na + F_2 \rightarrow NaF$	**a.**	**b.**
3. $HgO \rightarrow Hg + O_2$	**a.**	**b.**

Answer questions 4 and 5 on a separate sheet of paper.

4. Describe in words the chemical composition of the molecules involved and the reaction represented by the equation: $2H_2 + O_2 \rightarrow 2\ H_2O$
5. Use the principle of conservation of mass to explain why the equation in question 4 is balanced.

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

____ **6.** chemical equation

____ **7.** decomposition reaction

____ **8.** coefficient

____ **9.** product

____ **10.** reactant

____ **11.** conservation of mass

____ **12.** synthesis reaction

____ **13.** replacement reaction

a. substance present after a reaction

b. reaction in which substances combine to form a more complex compound

c. uses symbols and formulas to show chemical reactions

d. reaction in which one element replaces another in a compound

e. substance present before a reaction

f. number telling how many molecules of a substance are involved in a chemical reaction

g. reaction in which compounds are broken down into simpler products

h. principle that states that matter is not created or destroyed during a chemical reaction

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