

Chemical Reactions ▪ *Review and Reinforce***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. $\text{FeS} + \text{HCl} \rightarrow \text{FeCl}_2 + \text{H}_2\text{S}$	a.	b.
2. $\text{Na} + \text{F}_2 \rightarrow \text{NaF}$	a.	b.
3. $\text{HgO} \rightarrow \text{Hg} + \text{O}_2$	a.	b.

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

- Describe in words the chemical composition of the molecules involved and the reaction represented by the equation: $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
- 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.

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|---------------------------------|---|
| _____ 6. chemical equation | a. substance present after a reaction |
| _____ 7. decomposition reaction | b. reaction in which substances combine to form a more complex compound |
| _____ 8. coefficient | c. uses symbols and formulas to show chemical reactions |
| _____ 9. product | d. reaction in which one element replaces another in a compound |
| _____ 10. reactant | e. substance present before a reaction |
| _____ 11. conservation of mass | f. number telling how many molecules of a substance are involved in a chemical reaction |
| _____ 12. synthesis reaction | g. reaction in which compounds are broken down into simpler products |
| _____ 13. replacement reaction | h. principle that states that matter is not created or destroyed during a chemical reaction |