

SECTION 1-2

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
$\text{FeS} + \text{HCl} \rightarrow \text{FeCl}_2 + \text{H}_2\text{S}$	_____	_____
$\text{Na} + \text{F}_2 \rightarrow \text{NaF}$	_____	_____
$\text{HgO} \rightarrow \text{Hg} + \text{O}_2$	_____	_____

Answer the following questions on the back of this page or 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 above is balanced.

◆ Building Vocabulary

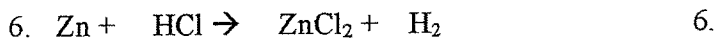
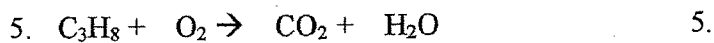
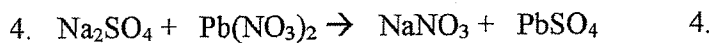
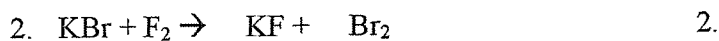
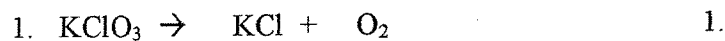
Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- | | |
|--------------------------------|---|
| _____ 3. chemical equation | a. materials present after a reaction |
| _____ 4. chemical formula | b. reaction where substances combine to form a more complex compound |
| _____ 5. decomposition | c. indicates how many atoms of an element are in one molecule |
| _____ 6. coefficients | d. uses symbols and formulas to show chemical reactions |
| _____ 7. products | e. reaction where one element replaces another in a compound |
| _____ 8. reactants | f. combination of symbols that represent the elements in a compound |
| _____ 9. conservation of mass | g. materials present before a reaction |
| _____ 10. synthesis | h. numbers telling how many molecules are involved in a chemical reaction |
| _____ 11. replacement reaction | i. reaction where compounds are broken down into simpler products |
| _____ 12. subscript | j. matter is not created or destroyed during a chemical reaction |

Types of Reactions: Identifying and predicting products

For each reaction equation:

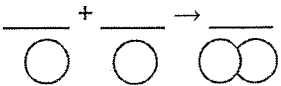
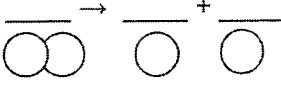
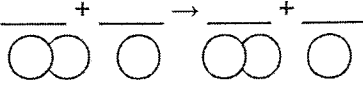
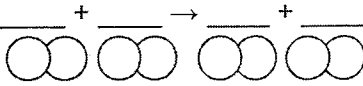
1. Balance the equation.
2. Identify the type of reaction (synthesis, decomposition, single displacement, double displacement or combustion).

Reaction Type

Chemical Reactions

Name Key

1. Watch the video and then complete the chart.

Type of Reaction	Definition	★ Equation
Synthesis		
Decomposition		
Single Replacement		
Double Replacement		

Colors: A = Red, B = Blue, C = Green, D = Yellow

2. Use colored pencils to circle the common atoms or compounds in each equation to help you determine the type of reaction it illustrates. Use the code below to classify each reaction.

S = Synthesis D = Decomposition SR = Single Replacement DR = Double Replacement

