SCH3U0: Chemistry, Grade 11, University Level
Chemical Reactions
Synthesis and Decomposition Reactions

Predicting Reactions Worksheet

For each reactant side of the chemical equation that is given:

a) State the reaction type;
b) Complete the word equation;
c) Show a balanced chemical equation.

1. lithium + nitrogen →

Reaction Type:_____

Balanced chemical equation: _____

$\xrightarrow{\Delta}$

2. sodium chlorate →

Reaction Type:_____

Balanced chemical equation: _____

3. calcium oxide + water →

Reaction Type:_____

Balanced chemical equation: _____

4. copper + fluorine → copper (II) fluoride

Reaction Type:_____

Balanced chemical equation: _____

$\xrightarrow{\Delta}$

5. potassium nitrate →

Reaction Type:_____

Balanced chemical equation: _____

6. sodium oxide + water →

Reaction Type:_____

Balanced chemical equation: _____

7. carbon dioxide + water →

Reaction Type:_____

Balanced chemical equation: _____

8. magnesium oxide + water →

Reaction Type:_____

Balanced chemical equation: _____

$\xrightarrow{\Delta}$

9. barium carbonate →

Reaction Type:_____

Balanced chemical equation: _____

10. zinc + chlorine →

Reaction Type:_____

Balanced chemical equation: _____

11. hydrogen + nitrogen →

Reaction Type:_____

Balanced chemical equation: _____

12. calcium hydroxide →

Reaction Type:_____

Balanced chemical equation: _____

$\xrightarrow{\Delta}$

13. lithium bicarbonate →

Reaction Type:_____

Balanced chemical equation: _____