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March 5, 2019 8:37 AM

6 types of rxns

Name: _____

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Chemical Reactions:

Lesson 13 – Types of Chemical Reactions

1) Synthesis: A + B → AB

Ex. $2Mg + O_2 \rightarrow 2MgO$

$Na + Cl_2 \rightarrow NaCl$

2) Decomposition: AB → A + B

Ex. $H_2O_2 \rightarrow H_2 + O_2$

$2MgO \rightarrow 2Mg + O_2$

3) Single Replacement: A + BC → B + AC

Single Replacement:
A + BC → B + AC when A is a metal
A + BC → C + BA when A is a non-metal

Ex. $2H_2 + 2MgO \rightarrow 2MgH_2 + O_2$

Ex. $F_2 + NaI \rightarrow I_2 + NaF$

4) Double replacement: AB + CD → CB + AD

Ex. $Al_2(SO_4)_3 + 3BaCl_2 \rightarrow 3BaSO_4 + 2AlCl_3$

Ex.

5) Neutralization: Acid + Base → Salt + Water

Ex. $HCl + NaOH \rightarrow NaCl + H_2O$

Ex. $H_2SO_4 + Mg(OH)_2 \rightarrow MgSO_4 + H_2O$

6) Combustion: Organic Compound + Oxygen Gas → Carbon Dioxide + Water

↳ Has C and H

Balance Hint: C, H, O

Ex. $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$

Ex $2C_2H_6 + 7O_2 \rightarrow 4CO_2 + 6H_2O$