Synthesis Reaction

A + B -> AB

Example:

$4Na + O_2 \rightarrow 2Na_2O$

Decomposition

AB -> A + B

Example:

KCl -> K + Cl

SINGLE REPLACEMENT

A + BC —> AC + B

$3Be + Mg_3C_2 \text{ —> } 3Mg + Be_3C$

DOUBLE REPLACEMENT

AB + CD -> AC + BD

$Na_2S + 2HCl \text{ —> } 2NaH + SCl_2$