**Six Types of Chemical Reactions**

1. Synthesis

A + B → C, where C is more complex than A or B

1. Decomposition

C → A + B, where C is more complex than A or B

1. Single Replacement

A + BC → AC + B, where A is a metal and BC and AC are ionic compounds

or

A + BC → BA + C, where A is a nonmetal and BC and BA are ionic compounds

1. Double Displacement

AB + CD → AD + CB, where all are ionic compounds

1. Acid-Base

HA + BOH → H2O + BA, where HA is an acid, BOH is a base and BA is an ionic compound

1. Combustion

CmHn + O2 → CO2 + H2O, where CmHn sometimes contains O