Classifying Chemical Reactions (equations) from Reading 3.1

1. Synthesis builds up or comes together

2 or more reactants produce 1 product

i.e. $2 N_2 + 5 O_2 \rightarrow 2 N_2 O_5$

2. Decomposition breaks down

1 reactant breaks down into 2 or more products

i.e. $H_2CO_3 \rightarrow H_2O + CO_2$

3. Replacement

Single a solo reactant replaces 1 part of compound as a final product

Like a dance where 1 person "cuts in" to replace 1 part of another dance pair

i.e. Fe + 2 HCl \rightarrow FeCl₂ + H₂

Double reactant compounds exchange or trade to create 2 new product compounds

Like a square dance where you trade partners to make 2 new couples

i.e. $HCI + NaOH \rightarrow H_2O + NaCI$

4. Combustion Reactions

1 reactant is Oxygen (O₂)