Equations

→ Chemical equations are statements which represent a chemical reaction.

→ In a chemical equation there is a LHS called reactants and a RHS called products

→ The chemical equation has to be balanced This means that the number of atoms on the LHS side should be equal to number of atoms on the RHS.

→ This is followed because the law of conservation states that matter cannot be created or destroyed.

eg. $H_2 + Cl_2 \longrightarrow 2HCl$

Balancing Chemical equs.

1. $N_2 + 3H_2 \longrightarrow 2NH_3$

2. $H_2 + Cl_2 \longrightarrow 2HCl$

3. $Zn + 2HCl \longrightarrow ZnCl_2 + H_2$

4. $P_4 + 5O_2 \longrightarrow 2P_2O_5$

$Mg + 2HCl \rightarrow MgCl_2 + H_2$

$Fe + H_2SO_4 \rightarrow FeSO_4 + H_2$

$Zn + 2HNO_3 \rightarrow Zn(NO_3)_2 + H_2$

$2KI + Cl_2 \rightarrow 2KCl + I_2$

$2NaBr + F_2 \rightarrow 2NaF + Br_2$

$CaI_2 + Cl_2 \rightarrow CaCl_2 + I_2$

$2KBr + Cl_2 \rightarrow 2KCl + Br_2$

$2NaCl + Br_2 \rightarrow$ ~~$2NaBr + Cl_2$~~

$2HCl + F_2 \rightarrow$ ~~$2HF + Cl_2$~~

4) Double Displacement

$A^+B^- + C^+D^- \rightarrow AD + CB$

$Na^+OH^- + H^+Cl^- \rightarrow NaCl + H_2O$

$BaCl_2(aq) + Na_2SO_4(aq) \rightarrow BaSO_4(s)\downarrow + 2NaCl(aq)$

(white)

↳ precipitation reaction.