

# Class 10 Chemistry - Chapter 1

## Chemical Reactions and Equations

### 1. Chemical Reaction

- Jab ek ya adhik padarth milkar naye padarth banate hain jinke gun alag hote hain, use chemical reaction kehte hain.
- Lakshan: Rang badalna, gas nikalna, tapman ka badhna/ghatna, avshesh banna.

### 2. Chemical Equation

- Chemical reaction ko symbols aur formulas ke roop me likhna chemical equation kehla hai.
- Example:  $Mg + O_2 \rightarrow MgO$

### 3. Balanced Chemical Equation

- Equation me reactants aur products dono taraf atoms ki sankhya barabar ho, use balanced equation kehte hain.
- Example:  $2Mg + O_2 \rightarrow 2MgO$

### 4. Types of Chemical Reactions

(a) Combination Reaction: Do ya adhik padarth milkar ek naya padarth banate hain.

Example:  $CaO + H_2O \rightarrow Ca(OH)_2$

(b) Decomposition Reaction: Ek padarth toot kar do ya adhik padarth banata hai.

Example:  $CaCO_3 \rightarrow CaO + CO_2$

(c) Displacement Reaction: Zyada kriyashil tattv kam kriyashil tattv ko hata deta hai.

Example:  $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$

(d) Double Displacement Reaction: Dono padarth apne ions ka adan-pradan karte hain.

Example:  $Na_2SO_4 + BaCl_2 \rightarrow BaSO_4 + 2NaCl$

(e) Oxidation & Reduction:

Oxidation: Oxygen ka judna ya hydrogen ka hatna.

Reduction: Oxygen ka hatna ya hydrogen ka judna.

### 5. Corrosion

- Jab dhatu hawa aur nami ke prabhav se dheere-dheere kharab hoti hai, ise corrosion kehte hain.
- Example: Lohe par zang lagna

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### **6. Rancidity**

- Tel-chiknayi wale khadya padarth hawa ke sampark me aakar kharab ho jate hain, ise rancidity kehte hain.