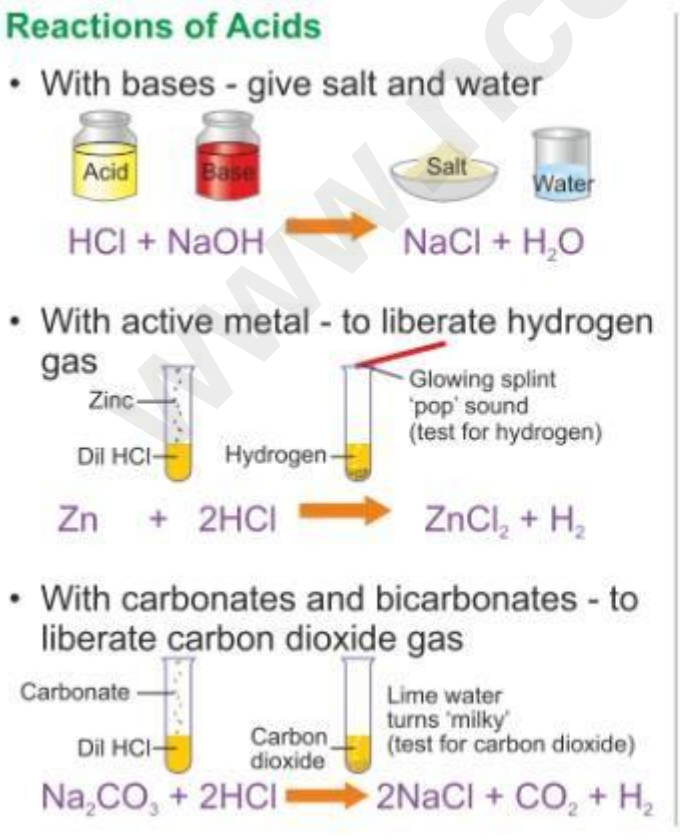
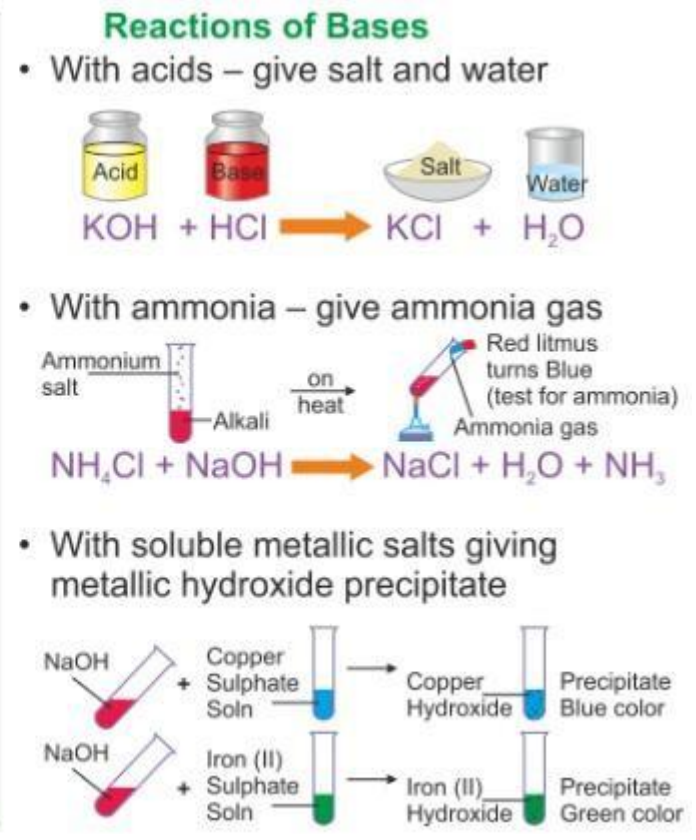
CBSE 7 Chemistry Revision Notes
Acids, Bases, Salts

PROPERTY	ACIDS	BASES
Taste	Sour to taste Soluble in water	Bitter, soapy/slippery to touch Soluble bases are alkalis
Reaction with litmus indicator	Blue litmus to red	Red litmus to blue
Hydrogen ion concentration	$pH < 7$	$pH > 7$
Conduction of electricity	Release H^+ ions in aqueous solution $HCl + H_2O \rightarrow H_3O^+ + Cl^-$	Release OH^- in solution $NaOH(aq.) \rightarrow Na^+ + OH^-(aq.)$
Reaction with metals	$Zn + 2HCl \rightarrow ZnCl_2 + H_2$	$2NaOH + Zn \rightarrow Na_2ZnO_2 + H_2$
Reaction of oxides	Metal oxide + acid→ salt + water $Cu_2O + HCl \rightarrow 2CuCl_2 + H_2O$	Non-metallic oxide + base → salt + water $Ca(OH)_2 + CO_2 \rightarrow CaCO_3 + H_2O$
Reaction with carbonates/ hydrogencarbonates	Metal carbonate + acid → salt+ carbon dioxide + water $Na_2CO_3 + 2HCl \rightarrow 2NaCl + H_2O + CO_2$ $NaHCO_3 + + HCl \rightarrow NaCl + H_2O + CO_2$	No reaction, they are rendered inert
Neutralization	Acid + Base = Salt	





Acid	Uses	Base	Uses
1. Citric acid	As a food preservative, Vit C	Potassium hydroxide	in alkaline batteries
2. Acetic acid	As a food preservative	Sodium Hydroxide	in manufacture of soaps
3. Tartaric acid	In the preparation of baking power	Calcium hydroxide	in softening of hard water
4. Boric acid	As an eye wash	Magnesium Hydroxide	as an antacid -
5. Carbonic acid	In flavouring drinks	Ammonium Hydroxide	removes grease stains from clothes

Salts:

- Solids with high melting points
- Mostly soluble in water
- Can conduct electricity in molten state
- 2 salts in solution may react to form 2 new salts
- Can be hydrated salts containing water of crystallization e.g. $CuSO_2.5H_2O$
- Sodium chloride is common salt used in cooking and as preservative
- Washing soda is used in laundries
- Bleaching powder is used to disinfect water
- Baking soda is used in making bread and cakes
- Gypsum is used to make Plaster of Paris. This is used to make plaster casts to set bones and to make toys