Chemical Formulas To Memorise😪

Under Chapter: Chemical Changes.

Memorise the acids, reactions and much more🙄

Memorise Chemicals⚛️

(a) Acids (no need to memorise the use)

Name Of Acid	Formula of Acid	Use or application of acid
Hydrochloric Acid	HCl	Found in Stomach—to digest food
Nitric Acid	HNO_3	Make fertilisers and explosives
Sulfuric Acid	H_2SO_4	Found in batteries of cars and lorries
Phosphoric Acid	H_3PO_4	Used as food preservatives and flavouring in Coca-Cola
Ethanoic Acid	CH_3COOH	Eg. of this acid: vinegar(dilute ver.)

(b) Common Polyatomic Ions

Name	Hydroxide	Nitrate	Sulfate	carbonate	Phosphate
Formula	OH^-	NO_3^-	SO_4^{2-}	CO_3^{2-}	PO_4^{3-}
Valency	-1	-1	-2	-2	-3

(c) Others

Name	Formula
Ammonia	NH_3
Ammonium	NH_4^+
Ammonium Salt	NH_4 __
Carbonate	CO_3 → if metal carbonate is __CO_3
Nitride	N^{3-}
Nitrite	NO_2^-
Nitrate	NO_3^-
Sulfide	S^{2-}
Sulfite	SO_3^{2-}
Sulfate	SO_4^{2-}
Bromide	Br^-
Iodide	I^-
Fluoride	F^-
Hydride	H^-
Hydrogen	H_2
Hydroxide	OH^-
Chloride	cl^-
Phosphide	P^{3-}
Phosphate	PO_4^{3-}
Oxide	O^{2-}

Memorise Chemical Reactions⚛️

(a) Reaction Of Acids

Reaction 1 : Acids + Reactive Metals

Acids(aq) +reactive Metal(s) → salt(l) + Hydrogen Gas(g)

→Insert a lighted splint into the test tube.

Hydrogen gas extinguishes the burning splint with a squeaky 'pop' sound.

Reaction 2 : Acids + Base

Base: Metal Oxide(__O) or metal Hydroxide(_OH)

Acid(aq) + base(aq) → salt(aq) + water(l)

→there's no test for this

Reaction 3 : Acids + Metal Carbonate

Metal Carbonate(__CO_3): is a metal + carbonate polyatomic ion (CO_3)

Acid(aq) + metal carbonate → salt(aq) + water(l) + carbon dioxide(g)

→Bubble the gas through limewater.

Carbon dioxide gas produces a white precipitate (an insoluble white solid) in limewater.

(a) Reaction Of Base

Reaction 1 : Base + Ammonium Salt

Ammonium salts: compounds that contain the ammonium polyatomic ion(NH_4) combined with another species such as chloride ion, nitrate ion or sulfate ion

Ammonium salt(aq) + base(aq) → salt(aq) + water(l) + ammonia(g)

→Place a piece of moist red litmus paper at the mouth of the test tube.

Ammonia gas turns damp red litmus paper blue.

Note: Ammonia also has a strong, pungent odour.

Memorise Roman Numerals, compound numbers(? idk what to call it bro)⚛️

1) Roman Numerals

Only occurs for lead, copper and iron

eg.(II),(III)

2) Compound numbers for non metal elements(covalent only)

1.mono	__1
2.di	__2
3.tri	__3
4.tetra	__4

5.penta	__5
6.hexa	__6