

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 ₂ SO ₄	Found in batteries of cars and lorries
Phosphoric Acid	H ₃ PO ₄	Used as food preservatives and flavouring in Coca-Cola
Ethanoic Acid	CH ₃ COOH	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

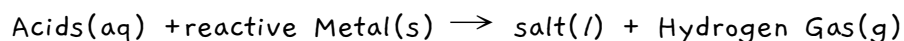
(c) Others

Name	Formula
Ammonia	NH_3
Ammonium	NH_4^+
Ammonium Salt	$\text{NH}_4 \text{ } __$
Carbonate	$\text{CO}_3 \rightarrow$ if metal carbonate is $__ \text{CO}_3$
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

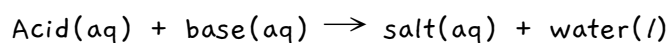


→ Insert a lighted splint into the test tube.

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

Reaction 2 : Acids + Base

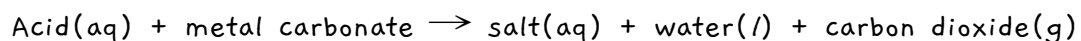
Base: Metal Oxide(__O) or metal Hydroxide(__OH)



→ there's no test for this

Reaction 3 : Acids + Metal Carbonate

Metal Carbonate(__CO₃): is a metal + carbonate polyatomic ion (CO₃)



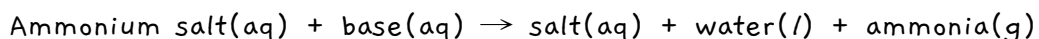
→ Bubble the gas through limewater.

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



→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