



Yes, You Need to Memorize These

Cations

Ammonium ¹	NH_4^+
Cobalt(III)	Co^{3+}
Chromium(II)	Cr^{2+}
Chromium(III)	Cr^{3+}
Copper(I)	Cu^+
Copper(II)	Cu^{2+}
Iron(II)	Fe^{2+}
Iron(III)	Fe^{3+}
Lead ion	Pb^{2+}
Silver ion	Ag^+
Zinc ion	Zn^{2+}

Bases You Should Know

Hydroxide (strong)	OH^-
Ammonia ³ (weak)	NH_3

Acids You Should Know

Hydrochloric acid (strong)	$\text{HCl} (aq)$
Hydrofluoric acid (weak)	$\text{HF} (aq)$
Sulfuric acid (strong)	H_2SO_4
Nitric acid (strong)	HNO_3
Hydronium ion (strong)	H_3O^+
Acetic acid ⁴ (weak)	$\text{HC}_2\text{H}_3\text{O}_2$
Carbonic acid ⁵ (weak)	H_2CO_3

Anions

Acetate ²	$\text{C}_2\text{H}_3\text{O}_2^-$
Carbonate	CO_3^{2-}
Hydrogen carbonate	HCO_3^-
Chloride	Cl^-
Hypochlorite	ClO^-
Chlorite	ClO_2^-
Chlorate	ClO_3^-
Perchlorate	ClO_4^-
Chromate	CrO_4^{2-}
Dichromate	$\text{Cr}_2\text{O}_7^{2-}$
Cyanide	CN^-
Nitride	N^{3-}
Nitrite	NO_2^-
Nitrate	NO_3^-
Oxide	O^{2-}
Peroxide	O_2^{2-}
Permanganate	MnO_4^-
Phosphide	P^{3-}
Phosphite	PO_3^{3-}
Phosphate	PO_4^{3-}
Hydrogen phosphate	HPO_4^{2-}
Sulfide	S^{2-}
Sulfite	SO_3^{2-}
Sulfate	SO_4^{2-}
Hydrogen sulfate	HSO_4^-

¹ Not to be confused with the molecule ammonia, NH_3

² This is the common, most often used name. The official name is the ethanoate ion.

³ Not to be confused with the polyatomic ion, ammonium, NH_4^+

⁴ This is the common name. Its official name is ethanoic acid.

⁵ Unstable and readily decomposes into carbon dioxide gas and water.



1 1A	2 2A	3 3B	4 4B	5 5B	6 6B	7 7B	8 8B	9 9B	10 10B	11 1B	12 2B	13 3A	14 4A	15 5A	16 6A	17 7A	18 8A
H ⁺													C ⁴⁺	N ³⁻	O ²⁻	F ⁻	
Li ⁺	Mg ²⁺											Al ³⁺		P ³⁻	S ²⁻	Cl ⁻	
Na ⁺	Ca ²⁺						Fe ²⁺ Fe ³⁺	Co ²⁺ Co ³⁺		Cu ⁺ Cu ²⁺	Zn ²⁺				Se ²⁻	Br ⁻	
K ⁺	Sr ²⁺									Ag ⁺	Cd ²⁺		Sn ²⁺ Sn ⁴⁺		Te ²⁻	I ⁻	
Rb ⁺	Ba ²⁺												Pb ²⁺				
Cs ⁺																	