

Naming Chemical Compounds (Ionic Compounds)

An ionic compound is formed between a metal and a non-metal.

In a compound, the metallic element's name remain UNCHANGED!
However, the non-metallic element changes its name to _____ **ide**.



Eg. fluorine → fluoride oxygen → oxide sulphur → sulphide

bromine → bromide chlorine → chloride iodine → iodide

CATIONS = POSITIVE IONS (M stands for Metal)

All group 1 elements consist of ONE electron in their outermost shell
An ionic compound is formed when this electron is lost to a non-metal.



All group 2 elements consist of TWO electrons in their outermost shell.



All group 3 elements consist of THREE electrons in their outermost shell.



All group 4 and 5 elements consist of four (or five) electrons in their outermost shell.

TOO HARD to form IONS – they normally form covalent compounds with other non-metals by sharing electrons.

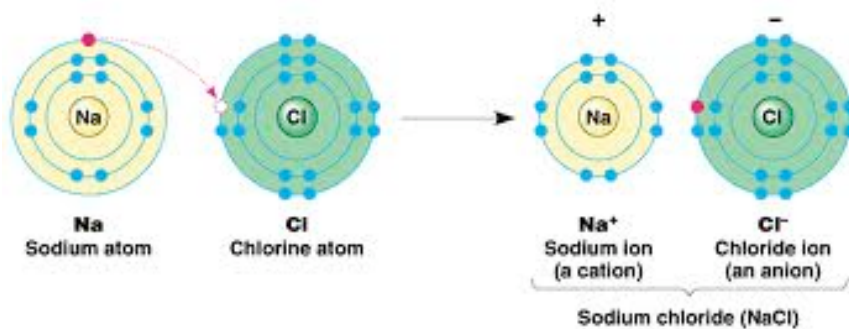
ANIONS = NEGATIVE IONS (N stands for non-metal)

All group 6 elements consist of 6 electrons in their outermost shell. They are eager to receive TWO electrons to form anions.



All group 7 elements consist of ONE electron in their outermost shell.





Year 10 Chemistry – Naming compounds and writing formulae Name:

Exercise A - Name these compound.

Name: _____

1. NaCl _____

2. KI _____

3. MgO _____

4. AlF₃ _____

5. LiBr _____

6. CaO _____

7. K₂S _____

8. FeS _____

9. CuCl₂ _____

10. ZnBr₂ _____

Radicals or Polyatomic ions are ions formed from different types of non-metals chemically combined together with an overall net charge.

There are 7 common radicals. (many end with **-ate**)

Carbonate **CO₃²⁻**

Bicarbonate **HCO₃⁻**

Sulphate **SO₄²⁻**

Nitrate **NO₃⁻**

Phosphate **PO₄³⁻**

Hydroxide **OH⁻**

Ammonium **NH₄⁺** (the only positive radical you need to know)

Exercise B - Name these compound.

1. KOH _____

2. NH₄I _____

3. MgSO₄ _____

4. Al₂O₃ _____

5. AgNO₃ _____

6. Ba(OH)₂ _____

7. (NH₄)₃PO₄ _____

8. NaHCO₃ _____

9. CuSO₄ _____

10. PbCO₃ _____

Exercise C – Give the chemical formulae of these compounds.

Compound Name	Cation	Anion	Chemical Formula
Sodium Bromide			
Magnesium Sulphide			
Calcium Carbonate			
Lithium Sulphate			
Ammonium Hydroxide			
Aluminium Nitrate			
Aluminium Oxide			

Well done! If you have mostly correct..... Ready to study VCE Chemistry