Chapter 9: Chemical Names & Formulas

Review

-Atom -> smallest particle, can be 1+ grouped together

Ex: He, [redacted], [redacted] O_2, H_2O

-Ion -> charged atom (atoms containing different #s of electrons)

=> the goal is to become stable by combining with other ions!!!

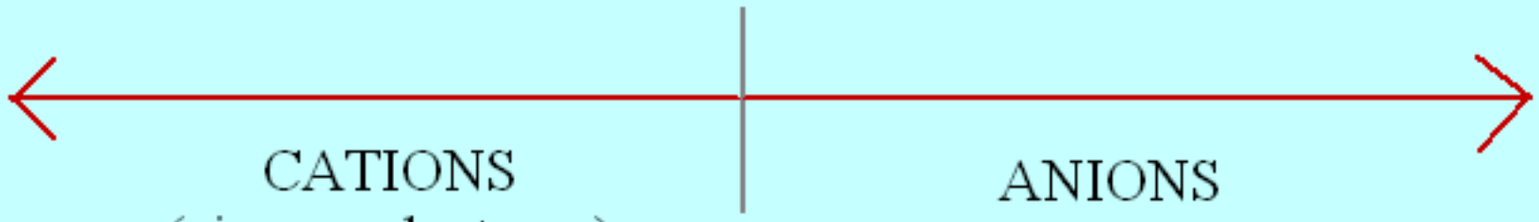
2 Types

1) Cation: (+) charge … p > e- (give up e- to become stable)
2) Anion: (-) charge … e- > p (take e- to be stable)

Where on the Periodic Table are these ions???

**only Group A ~ Representative Elements*

Groups	IA	IIA	IIIA	IVA	VA	VIA	VIIA	VIIIA
valence electrons								
charges								



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Includes all
Group B ~ Transition Metals

Why do we combine Cations & Anions?

= to make STABLE <u>compounds</u> (mixture of different elements)

(1) <u>Molecular</u>
-composed of molecules
-only NONMETALS
-name using prefixes

(2) <u>Ionic</u>
-composed of ions
-has METAL as cation
-name without prefixes

How to write Compounds

1) Cations (1st) - Anions (2nd)

2) Monary: 1 element
   Binary: 2 elements
   Ternary: 3+ elements

**Diatomics:*

3) Nomenclature (prefixes)

1	6
2	7
3	8
4	9
5	10

4) the "Headaches"

-Polyatomic Ions: multi-elemented ions
***On a seperate sheet for reference.*

-Transition Metals: all CATIONS
--> multiple forms/charges

5) Endings (only for anions)

-ide: for those on PT

-ite: for those on polyatomic sheet

-ate: for those on polyatomic sheet

How to FORM COMPOUNDS:

*You want charges to equal ZERO

*When they do not ... you ...

'CRIS-CROSS' ~

MUCH MUCH MORE PRACTICE ...