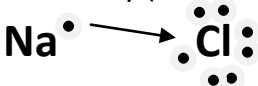


Formula Notes

Chemical Formula: shorthand for the compound (ex: NaCl)

1. Tells what elements a compound contains
 2. Tells the number of the atoms of each element
- **Subscript**- tells how many atoms of that element are in a unit of the compound.
 - No subscript, the unit only contains one atom of that element.
 - Ex: NaCl Na=1 Cl=1
 - Ex: H₂O H=2 O=1
 - Ex: H₂O₂ H=2 H=2 O=2
 - Ex: (NH₄)₂O N=2 H=8 O=1
 - Ex: 2 H₂O H=4 O=2

Atomic Stability- Why form compounds at all?

- A stable atom has 8 valence electrons. *Atoms like to be stable.*
- Atoms can reach stability (with 8 valence electrons) by forming compounds.
 - Ex:  **Transfer Electrons** Ionic Bond
- Ions- when an atom loses or gains electrons it becomes charged. A charged particle is called an ion.
 - **Superscript**- Charges are written in superscript
 - Ex: K⁺, Mg²⁺, Cl⁻
 - Potassium lost one electron, Magnesium lost 2 electrons, chlorine gained 1 electron.
 - Oxidation Numbers are the superscript charge numbers. See periodic table to find charges.
- COMPOUNDS ARE NEUTRAL