<u>Chemical Bonding</u> Lingo
Honors Freshman Physics/Chemistry

The following are the terms you should be familiar with in order to properly complete this unit. You are expected to be able to define each as well as apply these terms in any situation during this and subsequent units of study.

stability - The ability of a material to resist change.

valence electrons - Electrons present in the outer-most energy level of an atom. For most atoms they are available to be gained, lost or shared.

octet rule - State's that the outer energy level needs to be filled with eight* electrons in order for an atom/ion to be stable. *Or two for the first five elements.

oxidation number - The number of electrons gained or lost by an atom.

ion - An atom or group of atoms that has a positive or negative charge because it has lost or gained electrons.

cation - An ion with a positive charge.

anion - An ion with a negative charge.

monatomic ion - An ion created from only one atom.

polyatomic ion - A group of two or more "atoms" that function as a single ion.

ionic bond - A chemical bond formed by the attraction of oppositely charged ions.

binary compound - A compound consisting of only two ions.

molecule - A neutral group of atoms held together by covalent or ionic bonds.

covalent bond - A chemical bond formed when atoms share pairs of electrons.

non polar - Description of a covalent bond that has an even distribution of charge due to an equal sharing of bonded electrons.

polar - Description of a covalent bond that has an uneven distribution of charge due to an unequal sharing of bonded electrons.

chemical formula - A precise statement, using chemical symbols, that tells which elements are in a compound and their respective ratios.

subscript - A small lowered number written in a chemical formula that shows how many atoms of each element are present in a compound.