Term	Definition
Allotrope	one or more forms of an elementary substance.
AnION	negatively charged atom; an atom that gains an electron
Atom	the basic unit of structure for all matter; can't be broken down any further by chemical means
Atomic Mass	the average mass of all naturally occurring isotopes for an element
Atomic Mass unit (a.m.u.)	1/12th the mass of a Carbon-12 atom; the mass of one proton or one neutron
Atomic number	the number of protons in an atom of a given element
CatION	positively charged atom; an atom that loses an electron
Compound	two or more atoms of DIFFERENT ELEMENTS chemically combined; always the same ratio
Electron	virtually MASSLESS (teenie, tiny) NEGATIVELY CHARGED particle found OUTSIDE the nucleus
Electron Configuration	the arrangement of electrons in an atom or molecule
Element	particles that all have the same number of protons in the nucleus
Excited state	when an atom absorbs energy and one or more of its electrons "jump" to an orbital further from the nucleus
Ground state	when all electrons within an atom fill the lowest energy orbitals; when the electrons are where they would "normally" be
Ion	a charged atom; an atom that gains or loses an electron
Isotope	an atom of an element with the same number of protons (atomic #) but a different number of neutrons
Kernel electron(s)	any electrons found inside the valence shell; the innermost electrons
Lewis Dot Diagram	representation of an atom or molecule using only the element symbol and the valence electron arrangement
Mass number	the mass of a given isotope of an element; the sum of the masses of protons and neutrons
Neutron	subatomic particle with a MASS of 1 amu (atomic mass unit), and a CHARGE of zero found WITHIN THE NUCLEUS; (NEUTRAL)
Nuclear Charge	electric charge within the nucleus of an atom; equal to the # of protons (always positive!)
Nucleons	any (subatomic) particle found in the nucleus of an atom; a PROTON or a NEUTRON
Nucleus	the DENSE, POSITIVE, CENTRAL core of an atom
Orbit	set paths that electrons take around nucleus according to Planetary/Bohr Model (similar to the paths that planets take around the sun)
Orbital	a region where electrons of an atom can be found according to Wave-Mechanical Model
Planetary Model (A.K.A Bohr Model)	atomic model constructed by Neils Bohr that proposes all electrons can be found in orbits or paths outside nucleus (electrons must gain or lose energy to jump from one orbit to another)
Proton	subatomic particle with a MASS of 1 amu (atomic mass unit), and a CHARGE of +1 found WITHIN THE NUCLEUS
Quantum Theory	used to describe the dual nature of matter; electrons behave like particles and energy

Term	Definition
Valence electron(s)	the outermost electrons in an atom (there can NEVER be more than 8 valence electrons; known as the OCTET RULE)
Wave-Mechanical Model	states that electrons don't travel in fixed orbits, but that we can use mathematic principals to predict where electrons are most likely to be found