**Unit Two: Interactions of Matter Vocabulary**

* **Atom**- basic unit of matter, smallest particle
* **Boiling point**- temperature at which a substance goes from a liquid to a gas
* **Chemical bonds** –an attraction between atoms that allows the formation of chemical substances that contain two or more atoms
* **Chemical change**- a change that causes the substances involved to form a new substance
* **Classify**- to arrange according to subject matter, to assign to a category
* **Closed system** –physical system that is closed to certain types of transfers in or out of the system
* **Compound**- produced when elements combine, properties different from each of the elements in it
* **Concentration**- how much solute is present in a solution compared to the amount of solvent
* **Conductivity**- The ability for electricity to move through an element
* **Conductors**- elements through which heat can move
* **Corrosion**- a process in which a substance is changed or weakened by a chemical reaction (ex. rust)
* **Density**- physical property, d=mass/volume
* **Electron-** subatomic particle -exists outside the orbitals in the electron cloud, have the least weight
* **Electron Cloud-** The region of negative charge surrounding an atomic nucleus that is associated with an atomic orbital.
* **Element**- substance that cannot be broken down into simpler substances
* **Endothermic reaction**- chemical reaction in which heat energy is absorbed (heat on reactant side)
* **Energy**- usable heat or power
* **Exothermic reaction-** chemical reaction in which heat energy is released (heat on product side)
* **Gas**- particles are moving very quickly
* **Group**- family of elements that have similar properties (column – up and down)
* **Heat**- a degree of warmth, form of energy
* **Heterogeneous mixture** - the components can be seen. A mixture that is unevenly distributed
* **Homogeneous mixture -** A mixture which has uniform composition and properties throughout**.**
* **Law of Conservation of Matter/Mass**- states that the matter/mass of the products of a chemical change is ALWAYS same as matter/mass of what you started with (reactants)
* **Liquid**- particles are moving faster than in solid but slower than in gas
* **Magnetism**- the ability of a material to be attracted or repelled to another material due to a magnetic field
* **Malleability**- the ability of a material to be hammered or rolled into sheets
* **Mass**- the amount of matter in an object
* **Matter**- anything that has mass and takes up space
* **Melting point**- temperature at which a substance goes from a solid to a liquid
* **Metal**- element that is malleable, ductile, a good conductor of electricity, and is shiny
* **Metalloid**- element that shares some properties with both metals and nonmetals (semi-conductor)
* **Mixture**- combo of compounds and elements that can be separated
* **Neutron-** An uncharged particle (its neutral) found in the nucleus
* **Nucleus -** The very dense region consisting of protons and neutrons at the center of an atom.
* **Non-metal**- element that is usually a gas or brittle solid (easily breakable) and is a poor conductor of heat and electricity
* **Non-reactive**- elements that do not react
* **Period**- horizontal row of elements in the periodic table whose properties change gradually
* **Periodic table**- arranges elements according to their atomic numbers (# of protons) so that elements with similar properties are in the same column
* **pH**- measure of acidity/basicity of a solution, scale from 1-14, closer to 1 – acid, closer to 14 – base, water is neutral at 7 (half way on scale)
* **Physical change**- same substance, just looks different
* **Physical properties** –can be observed or measured without changing the composition of matter
* **Precipitate** –cause (a substance) to be deposited in solid form from a solution
* **Products** –formed during chemical reactions as reactants are combined
* **Property**- characteristic
* **Proton -** A positively charged particle that is found in the nucleus
* **Reactants** –a substance that undergoes change during a reaction
* **Reactive**- elements that will react
* **Reactivity** –the rate at which a chemical substance tends to undergo a chemical reaction
* **Saturated solution**- a solution in which the max amount of solvent has been dissolved, any more solute added will sit on the bottom
* **Solid**- particles are slow moving or not moving at all
* **Solubility**- that amount of a substance that can be dissolved in a given amount of solvent
* **Solute**- the substance to be dissolved
* **Solution**- a homogeneous mixture in which substances are distributed uniformly throughout
* **Solvent**- the substance to do the dissolving (ex. usually water)
* **Synthetic chemical**- a chemical that is “fake,” created by man
* **Temperature**- how hot/cold something is, can be measured in Fahrenheit or Celsius
* **Volume**- how much space an object takes up