**Elements, Compounds and Mixtures**

**Video Notes**

**Element-** **a pure substance made of only one kind of atom**; a unique and pure substance in its simplest form; all atoms in an element are the same; atoms of the same element all have the same number of protons

Examples: Copper (Cu)/ Lead (Pb)/ Gold (Au)

**Compound**- **a substance made of atoms of different elements chemically bonded together**

Examples: Water (H2O)/ Silicon Dioxide (SiO2) (sand or glass)/ Carbon Dioxide (CO2)

**Molecule**- **made of 2 or more atoms chemically bonded together**; (the atoms can be the same or different)

Examples of molecules: O2 (Oxygen we breathe in the air) / O3 (Ozone) / Water Molecule = H2O

**Mixture**- **2 or more substances that combine but are not chemically combined** (just mixed together); ingredients can be easily separated

 Examples: trail mix, fruit salad, tossed garden salad

**Homogeneous Mixture**- **different substances that are evenly mixed**; same throughout; can’t see individual ingredients

 Examples: (tea, milk, lemonade)

**Heterogeneous Mixture**- **different substances that are not evenly mixed**; mixture not the same throughout; can see individual ingredients

Example: (trail mix, salad, fruit salad, oil and vinegar dressing)

**Solution**- **a liquid that has a solid in it that is dissolved evenly**

Example: (Saline solution, sugar water)

 **Solute**- **the solid that gets dissolved** (sugar, salt)

**Solvent**- **the liquid that does the dissolving** (water)