Conservation of

**Mass and Law of Definite Proportions.**

Con. Of Mass: nothing can be created or destroyed, just changed from one thing to another.

**Example: Burning Wood.**

**Even though the ash left behind doesn’t have the mass of the original log, if you collected the smoke that was given off and massed the ash after the fire is out the sum would be equal to the mass of the log before it was burned.**

**\*\*According to the law all chemical reactions start and finish with the same mass.**

**\*\*This is why all chemical equations must balance.**

**Law of Definite Proportions: the subscripts of a compound can only be changed if it goes through a chemical change.**

**\*\*If the subscripts are changed that means that the compounds is completely different.**

**Example:**

**CO2 (Carbon Dioxide): Required for life.**

**CO (Carbon Monoxide): kills plants and animals.**

**\*\*This is why you can’t change the subscripts when you are balancing chemical equations.**