**Enthalpy**

**Enthalpy (AKA “delta H”): is the amount of energy either given off (exothermic) or taken in (endothermic).**

**Each chemical reaction has a specific enthalpy that is reached.**

 **If the specific amount of energy is not reached or passed then the reaction either doesn’t happen or a different reaction begins.**

**Example: Anaerobic exercise (lacking oxygen): higher energy**

 **Aerobic exercise (oxygen is present): lower energy**

 **\*\*Since aerobic (walking) exercise requires less energy, less dense body tissue (fat) is usually burned.**

 **\*\*Since anaerobic (sprinting) exercise requires more energy, more dense body tissue (muscle) is usually burned.**

**The amount of heat given off during a reaction can be calculated by using the following equation:**

**Heat (of the metals in Joules)=**

**Mass of the metal x change in tmp x Specific Heat of Metal**

**Example:**

**If .5 Kg Mg (SH = 1.023) reacted with HCl and the temperature went from 29 C to 39 C, what is the amount of heat that is given off?**

**Change in temp = 29-39 = 10**

**H = .5 x 1.023 x 10**

**5.115 Joules**