**Density Lab**

Purpose: The student will determine the mass, volume, and density of the following objects: unknown metals, unknown liquid, and blocks of wood.

Safety: Use care when working with any unknown metals and liquids. Do not directly inhale any fumes!

Procedure: As you perform the lab, make sure to record all of your data using Significant Figures.

Part 1: Density of Unknown metal

1. Obtain Metal A or Metal B from the front table.
2. Record the mass of the metal using the triple beam balance.
3. Record the volume of the metal using a graduated cylinder.
4. Calculate the Density of the unknown metal.

Table 1: Density of Unknown Metal

Construct a data table with ALL MEASUREMENTS!

Part 2: Density of Unknown Liquid

1. Obtain a cup of the unknown liquid from the front table.
2. Determine the mass of the unknown liquid.
3. Determine the volume of the unknown liquid.
4. Calculate the density of the unknown liquid.

Table 2: Density of Unknown Liquid

Construct a data table with ALL MEASUREMENTS!

Part 3: Density of a Solid Block

1. Obtain a block from the table in the front.
2. Determine the mass of the block.
3. Determine the volume of the block.
4. Calculate the Density of the unknown block

Table 3: Density of a Solid Block

Construct a data table with ALL MEASUREMENTS!

Conclusion Questions: (Be sure to include these answers in your lab report.)

1. Using the computer, try and determine the identity of your metal, liquid, and block. You will not be deducted points for wrong substance.(Conclusion)
2. Calculate the Percent Error for the densities of each after checking with Efird to see if you have #1 correct. You can use the actual density from the internet if you are correct for your % error calculation. (Analysis of Data/Calculations)
3. How can you use the density of an object to identify unknown substances? Explain. (Conclusion)
4. What three techniques did you use to determine the volumes of the objects above?(Introduction)