Properties of Matter – Notes

“Everything Matters” because everything is made up of matter!!

What are some properties of matter?

Size Conductivity Mass Luster

Shape Malleability Weight Hardness

Elasticity Density Volume and many more……..

**Intensive properties** – Do NOT depend on the amount of matter present

**Extensive properties** – Depend on the amount of matter present

Which properties are Intensive? Extensive?

**Calculating Density- D = mass/volume.**

**How can you calculate volume?**

1.

Volume = l x w x h

For example 2cm x 3 cm x 5cm = 30cm3

2. You can measure the volume of a liquid like soda or hair spray by measuring the liquid in a graduated cylinder or beaker

3. Objects with odd shapes or textures – Use the displacement of water in a graduated cylinder to calculate the volume (like we did in the Penny lab)

**\*Once you have the volume and the mass, you can calculate the density of the object.**

D = 100g/25ml or D = 100g/25cm3 so D = 4g/ml or 4g/cm3

Notice 1ml = 1cm3

**Why do we care about knowing the properties of matter?**

1. Can examine an unknown material and use its’ properties to identify it. (What is this?)

2. To choose materials that would be best suited for certain products (What should I make this out of?)