

Name \_\_\_\_\_  
Date \_\_\_\_\_

Lab Activity: Density Cubes  
Period \_\_\_\_\_

6) Identify the material that each cube is made from using the following table. Record your answer in **Table 1**.

Material	PVC	Nylon	Brass	Copper	Aluminum	Acrylic	Oak	Pine	Poplar	Steel
Density (g/cm <sup>3</sup> )	1.39 - 1.42	1.13	8.0	8.9	2.7	1.16 - 1.19	0.60 - 0.90	0.35 - 0.60	0.35 - 0.50	7.6

Analysis:

1) If Mpg means miles that can be gotten per gallon of gasoline and Mph means miles that can be gotten in an hour. What does g/cm<sup>3</sup> (read as grams per centimeter cubed) mean? \_\_\_\_\_

2) Which material has the most amount of matter? Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_

3) Which material has the least amount of matter? Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_

4) If one cm<sup>3</sup> is equal to one ml, calculate the density of a half liter bottle of water that masses 20g.  
\_\_\_\_\_  
\_\_\_\_\_

**MAKE SURE YOU ANSWERED EVERY QUESTION.  
KEEP THIS IN YOUR LAB NOTEBOOK!**

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**Materials:**

- 1 Metric Ruler
- Lab Notebook
- Triple Beam Balance
- Patience

• **Procedure:**

**Table 1**

Cube Number	1	2	3	4	5	6	7	8	9	10
Height										
Width										
Length										
Volume										
Mass										
Density										
Identity										

- 1) Measure the Height, Width, and Length of a cube. Record this information in **Table 1**.
- 2) Using the Triple Beam Balance obtain the mass of the cube. Record this information in **Table 1**.
- 3) Calculate the Volume of the cube. (Remember that  $V=L \times W \times H$ ) Record this information in **Table 1**.
- 4) Density is calculated like this:  
$$\text{Density} = \text{Mass of an object} \div \text{Volume of that object}$$

Shorthand  $\rightarrow D = M / V$
- 5) Calculate the density of each cube. Record this information in **Table 1**.

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5) Create a **BAR** graph showing the densities of the objects.



