

Density of Solids Worksheet

Student Data Table(s)

	Length (cm)	Width (cm)	Height (cm)	Volume (cm ³)	Mass (g)	Density (g/cm ³)
Cube 1						
Cube 2						
Bar						

Post-Lab Questions

- How do the densities of Cube 1, Cube 2 and the Bar compare?
- From the data collected, are any of the three objects composed of the same material? How do you know this?
- Use the density table below to identify what material each item is composed of.

Density of Common Substances (at 20 °C) g/cm ³			
Gold	19.3	Steel	7.87
Mercury	13.6	Aluminum	2.70
Lead	11.4	Cork	0.24
Copper	8.92		

Identity

Cube 1

Cube 2

Bar

- Once each object has been identified, use the following equation to determine the accuracy of your calculated density measurements. Use the equation list below.

$$\text{Percent Error} = \frac{|\text{Calculated Density} - \text{Actual Density}|}{\text{Actual Density}} \times 100 = \underline{\hspace{2cm}}$$

- What are some possible errors in your density calculations?