

Name _____

Period _____

Density & Displacement

Rubber Stopper Lab

How do you find the volume for irregular shape objects such as a rock or a thumbtack? Easy! It's called volume by displacement. For irregular shaped object that do not have a distinct geometric shape such as a square or circle, we need to submerge them in a graduated cylinder and watch the water level rise. The amount the water level has raised is equal to the volume in Liters or milliliters! Once you have volume all you need is mass to find density. Mass is simply calculated by weighing the object.

Purpose: to find the volume and density of a rubber stopper

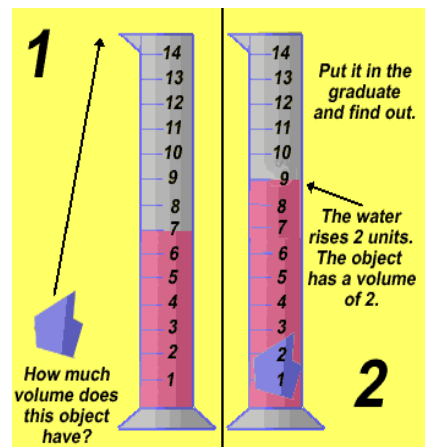
Materials:

Graduated cylinder (mL)

Triple Beam balance scale (grams)

Water

Rubber Stopper



Procedure:

- 1.) Fill the Graduated Cylinder with 20 mL of water
- 2.) Put stopper in the graduated cylinder, and watch the water level rise
3. Record the level of the water
4. Subtract the new water level from the 20mL
5. This will give us the volume of the rubber stopper
6. Now that we have volume, we need to find the mass in grams
7. Using the triple beam balance, mass (weigh) your rubber stopper in grams
8. To find the density (D) we divide mass / volume or Density is equal to mass divided by volume

Results:

Volume of Rubber stopper	Mass of rubber stopper	Density of rubber stopper

Conclusion:

Please answer the following questions.

1. What was the density of your rubber stopper?
2. How would find the volume of a rock?
3. Explain how you calculated density:
4. What did you learn?