

Name _____

Density Stations

Background Information: Mass and volume are properties of matter. Density is the ratio of mass and volume. The particular density of a specific kind of matter helps to identify it and distinguish it from other kinds of matter. Density is how we compare mass to volume.

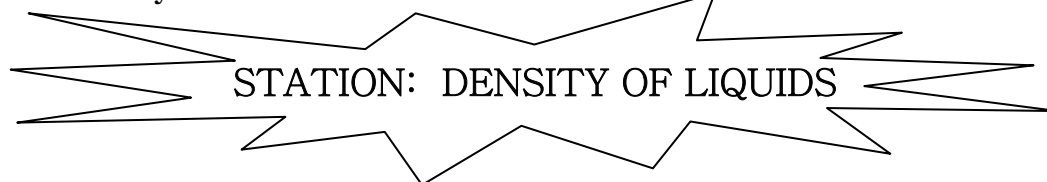
The formula used to calculate density is

$$\text{mass} \div \text{volume}$$

Procedure:

There are 4 stations set up around the classroom. As a team, rotate through each station. Follow the instructions on the task card at each station.

Record all of your answers and observations on this sheet.



Liquid	Mass of Cylinder (g)	Mass of Cylinder and Liquid (g)	Mass of Liquid (g)	Volume of Liquid (mL)	Density of Liquid (g/mL)	Rank (1-5) 1= high density 5 = low density
Water						
Corn oil						
Corn syrup						
Rubbing alcohol						
Glycerin						


 STATION: REGULAR SOLIDS

Block #	Mass of Block (g)	Length (cm)	Width (cm)	Height (cm)	Volume (cm ³)	Density (g/cm ³)	Rank (1-5) 1= high density 4 = low density
1							
2							
3							
4							


 STATION: IRREGULAR SOLIDS

Object	Mass of object (g)	Starting volume of water (mL)	Volume of water + object (mL)	Amount of water displaced (mL)	Volume of object (mL)	Density (g/mL)	Rank (1-5) 1= high density 4 = low density
Marble							
Rock							
Plastic animal							
Jack							


 STATION: WEB ACTIVITY

Shape	Mass (g)	Volume (mL)	Density (g/mL)	Rank (1-5) 1= high density 4 = low density
Blue square				
Blue triangle				
Red square				
Red oval				
Pink square				
Purple oval				
Green triangle				
Gray triangle				
Tan rectangle				
Red/black rectangle				

Is there any relationship between the volume of an object and its ability to float? Explain your answer.

Is there any relationship between the mass of an object and its ability to float? Explain your answer.

Is there any relationship between the density of an object and its ability to float? Explain your answer.