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Ch. 4 Density of Liquids Lab Activity

Purpose: Which liquids will sink and float when poured together? Which liquids will be most dense? Which liquids will be least dense?

Background Information:
Units of mass =
Units of volume =
Units of density =
A density column is _____.

Hypothesis:
This lab includes 5 different liquids: colored water, vegetable oil, honey, colored rubbing alcohol, and dish soap.
Write 3 hypotheses by making prediction about the purpose questions.

Procedure:
PLEASE FOLLOW DIRECTIONS CAREFULLY!!!

1. Assign each person a liquid to be in charge of.
    a. Water –
    b. Vegetable oil –
    c. Honey –
    d. Rubbing alcohol –
    e. Dish soap –
2. Decide the order in which to get and pour liquids in your jar.
   (* More viscous liquids should be poured last*)
   ORDER OF LIQUIDS:

3. One person at a time, get 35mL of each liquid and pour it in your jar. Be sure to rinse your graduated cylinder after each liquid.
4. During and after each liquid is poured, be sure to record any observations.

Observations:

Order of Pouring	Observations	Final Density Column

Calculations:

Find the mass of each liquid after you are given the density.

Liquid	Volume	Density	Mass
Honey	35 mL		
Water	35mL		
Rubbing Alcohol	35mL		
Dish Soap	35mL		
Vegetable Oil	35mL		

Conclusions:

1. Recall your hypothesis. Was your list proven or disproven? State reasons supporting your answer.

2. If you were to list the liquids in order from least density to greatest density, what would the list be?

3. The following materials and their densities are listed below. Write the order of liquids in your density column including these materials.
   Aluminum = 2.6 g/mL
   Vinegar = 1.04 g/mL
   Glue = 1.3 g/mL
   Cork = .55 g/mL

4. If you were to do this lab again, what would you differently with the materials or hypothesis?