

PSBB LEARNING LEADERSHIP ACADEMY

SCIENCE (PT3 SEA1)

Lab activity

Experiment no.3

TOPIC: STUDY OF DENSITY OF DIFFERENT LIQUIDS

AIM: To observe that different liquids have different densities.

MATERIALS REQUIRED: Transparent glass tumbler- 5 (one big and four small), honey, glycerine, cooking oil and vinegar, four different food colors of your choice.

THEORY: When materials of different densities are put in contact with one another, their relative densities will determine the order of layers of liquid. This phenomenon, where materials layer themselves according to their density is called superposition. The density of the materials can be determined by the formulae

$\text{Density} = \text{Mass} / \text{volume}$
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PROCEDURE:

1. Place four small glass tumbler on the table.
2. Measure 20ml of different types of liquid separately.
3. Pour the liquid in different glass tumbler after measuring them.
4. Mix different food color to different liquid (add one drop of liquid food color or add a pinch of solid food color)

5. Stir the food color into the liquid properly.
6. Note down the liquid and added food color for your reference.
(Ex- honey- red food color/ cooking oil- blue food color)
7. Transfer each one of these colored liquids slowly into the big glass tumbler. (one liquid should be poured at a time).

OBSERVATION:

The different liquids will settle in different layers

LAYERS	NAME OF THE LIQUID	DENSITY
1 st Layer (from top)		
2 nd Layer		
3 rd Layer		
4 th layer (at the bottom)		

RESULT: The different layers of liquids settle on the basis of their density. The highly dense liquid is _____. The least dense liquid is _____.

INFERENCE: The liquids that are dense are also heavier and are at the bottom of the container. The liquids that are the least dense will stay on top. Because of the different densities of the liquids, they form separate layers.

(NOTE – Take a picture of your activity and paste it in your lab notebook. Make the pdf file of your complete lab activity with the experiment write up and the picture. Upload the pdf file of your activity in google classroom.)

This is for your reference <https://youtu.be/MFHrmb09vIw>