

Science @ Home: Layer Liquids Due Friday, 10/5

Background: Everything has density. Density is related to sinking, floating, and buoyancy. The more dense something is, the “heavier” it seems. *Less dense items float on top of more dense items.*

What you do: Play around with the density of liquids at home. Use liquids you find in the kitchen such as: water, vinegar, milk, oil, liquid, soap, syrup, etc (*minimum of three different liquids*). In a clear glass try to layer a variety of liquids on top of each other. Keep track of what the liquids do: Do they mix, or layer? If they layer, what is on top of what? Once you’ve poured, give them a chance to settle to see if they layer/mix over time.

What you turn in: The following portions of a lab write up.

Hypothesis: Gather your liquids first, and before you start layering them, predict what you think the outcome will be (how the three liquids will layer/mix), and say why you think so. (Why do you think one liquid is more/less dense than another?)

Data: This should be in the form of a *detailed* drawing or photograph. You need to show the different layers, and label each according to which liquid or liquids it’s made of.

Conclusion: This is a bit different from a WASL-style conclusion, because we’re not dealing with *number* data. You may spread this out into more than four sentences, as long as all four topics are covered. *1st sentence:* State whether your hypothesis was right, wrong, or a mixture of both. *2nd sentence:* State which parts of your hypothesis were correct. (Which layers turned out how you expected?) *3rd sentence:* State which parts of your hypothesis were incorrect. (Which layers turned out differently than you expected?) *4th sentence:* State how each liquid’s density compares to the other liquids.

Helpful Hint: Pour slowly to encourage layering.

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