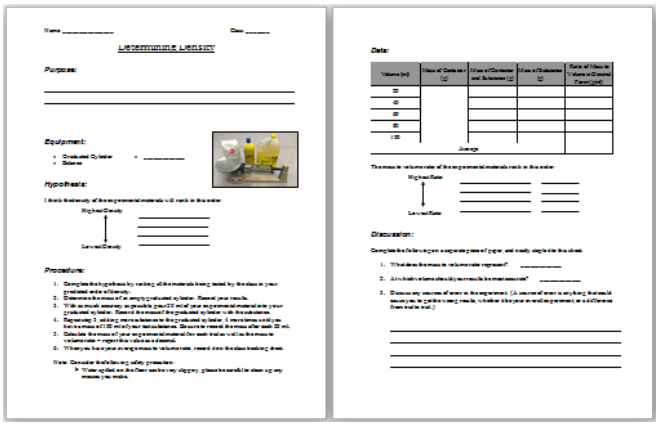
Grade 8 Science

Unit 3: Fluids

Density

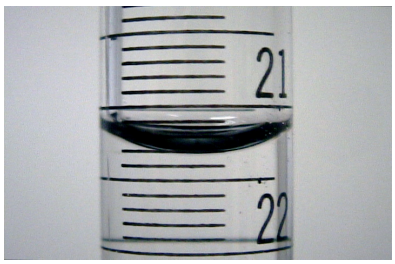
Today we will perform an experiment to determine and rank the density of four materials.

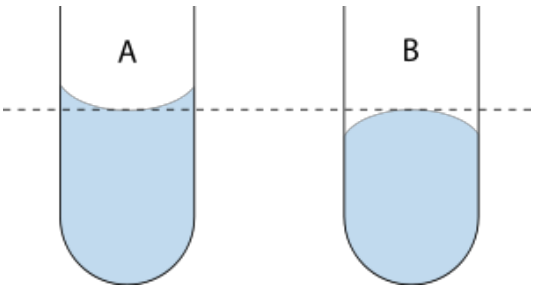
Please take a copy of the experiment sheet and sit in a group of ~3 (there must be 8 total groups).



Fluid Measurement

When you measure a fluid in a cylinder, it will not create a flat surface. You will note that the top of the fluid forms a "meniscus." This is a curve, where the fluid either rises on the edge of the cylinder, or in the centre, creating a dome.



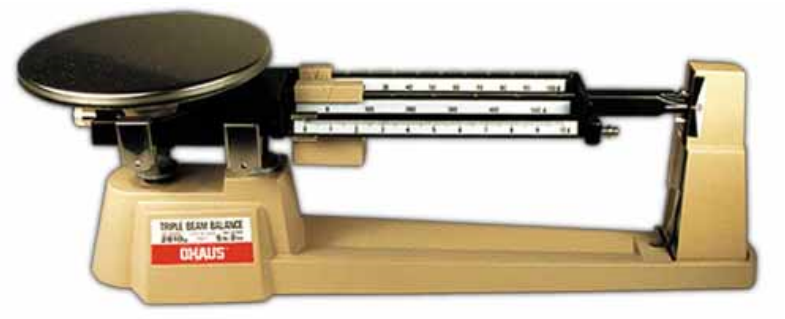


To measure the level of the fluid when it forms a concave meniscus (A), you look at the bottom of the meniscus. A convex meniscus (B) is measured by looking at the top. In both cases, it is important that you lower your eye to be level with the fluid, not looking at it on an angle.

Triple Beam Balance

To complete this experiment, you will be using a triple beam balance. Be sure that everyone in your group understands how to use this piece of equipment. You should not only be able to accurately find the mass of an object, but you should also be able to calibrate it.

Calibration is an importance science skill. Equipment with moving parts can shift. It needs to be reset so that it properly measures zero. If you do not know how to calibrate your triple beam balance, be sure to ask me how.



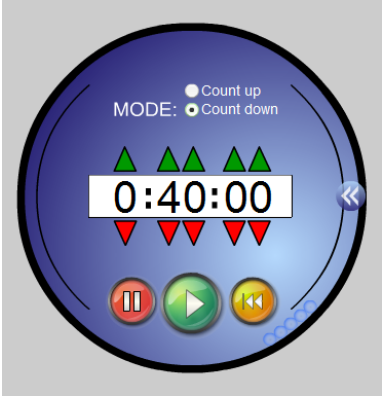
Why might I be stressing this so much? Hint, hint.

Density

When you have calculated your average mass to volume ratio, put your value in the table below. When both pieces of data are there, calculate the overall average for that substance.

When the timer sounds you MUST have a value in your cell. It is then time to clean up.

Substance	Mass to Volume Ratio		
	Group 1	Group 2	Average



Attachments

3-7 Density.pdf