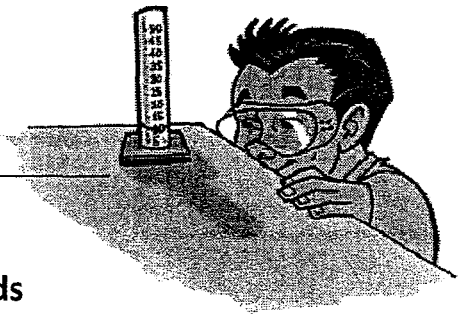


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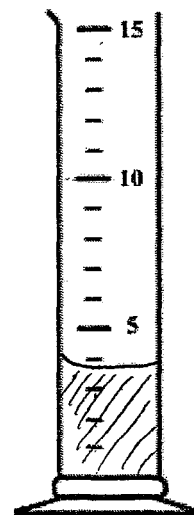
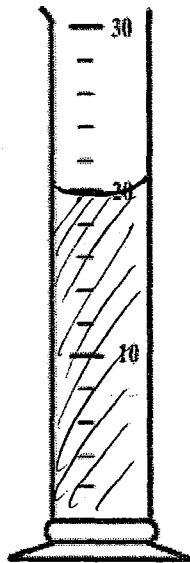
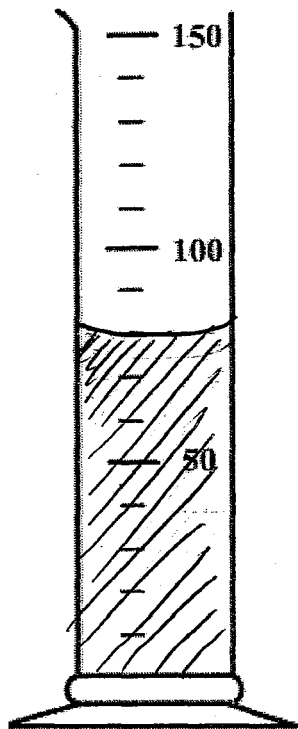
Lab 1: Measuring Challenge: Volume of Liquids

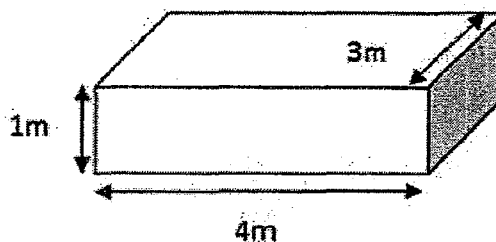
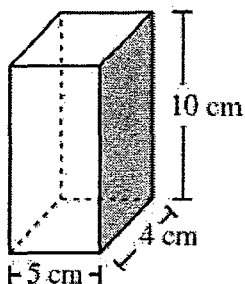
Volume is defined as the amount of space a sample of matter takes up. In today's lab you will be measuring the volume of several samples of 3 chemicals.

We measure volume of a regular object by using the formula Length x width x height. The volume of any regular solid object can be found using this formula, the SI unit for volume is the cubic meter (m^3) however scientists often use cubic centimeters (cm^3).

The volume of a liquid sample of matter is measured using a graduated cylinder. Each marking on the graduated cylinder represents a specific value usually in milliliters (mL) As with solids, the si unit for the volume of a liquid is the liter (L). Each time you use a G.C. you should calculate the value of each marking before you use it.

Pre Lab Calculate the volume in the following examples





Lab Materials: 40-50 ml Samples of Dihydrogen monoxide in red, blue, and yellow forms.

Glass beakers	Eyedroppers	Graduated cylinder
Test tubes	Test tube rack	Washing bottle with water

Procedure:

1. Locate your materials, label your test tubes with the letters A-F. Place one eyedropper in each of the dihydrogen monoxide beakers. DO NOT MIX THE EYE DROPPERS UP, it is very important that the different liquids do not mix until you told to do so. This will prevent contamination.
2. Using the graduated cylinder measure 25 ml of liquid from the beaker containing the red sample and add it to test tube A.
3. Measure 19 mL of the yellow chemical and add it to test tube C.
4. Measure 22 mL of the blue chemical and add it to test tube E
5. Measure 8 mL of chemical from test tube C and pour it into D.
6. From test tube E measure 14 mL and add it to test tube D. Mix.
7. From the blue sample in the beaker, measure an additional 4 mL and pour it into test tube F. then from the red sample in the beaker, measure 9 mL and add it to test tube F. Mix.
8. Measure 8mL of liquid from test tube A and pour it into test tube B. From test tube C measure 3 mL and add it to test tube B. Mix.
9. Fill in the data table below, you will need to measure the total volume of each sample in tubes A-F. You will want to rinse the graduated cylinder between samples.

