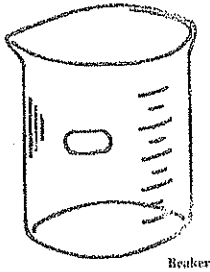


Name _____

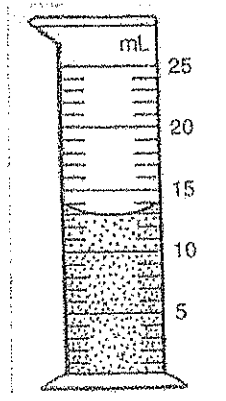
Scientific Processes – Tools and Measurements

Part A – Count Your Drops

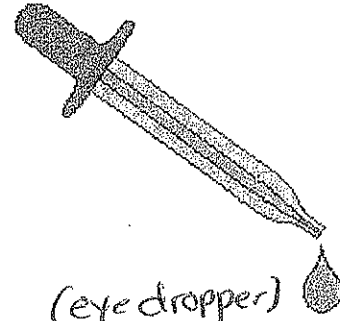
1. Take a guess – how many drops of water in one milliliter of water? _____
2. Tools you will need:



BEAKER



GRADUATED CYLINDER



(eye dropper)
PIPETTE

*Note, to measure volume with a graduated cylinder, you should take the reading at the lowest point in the curve.

- What amount of liquid is in the graduated cylinder pictured? _____
 How much liquid can your graduated cylinder measure? _____
 How much liquid can your beaker measure? _____

3. To determine the number of drops it takes to make a milliliter, fill your cylinder to 10 ml of water. Carefully add drops using the pipette until you reach 11 ml. Repeat this process 3 times in order to calculate an average.

Trial 1	Trial 2	Trial 3	Average

4. For oddly shaped objects, using a water displacement technique can determine the volume. Find the volume of 3 marbles by filling a graduated cylinder to 10 ml. Drop the marbles in and see how much the water rises – this is the volume of the marbles. Complete the table below.

Volume of water before adding marbles	Volume of water after marbles	Difference in Volume	Volume of 3 Marbles

Now determine the volume of a single marble by dividing your total (above) by 3. _____
 Try dropping a single marble into the graduated cylinder. What is its volume? _____