**Practicing using Graduated Cylinders Mini Lab**

**Purpose:** To learn how to accurately read a graduated cylinder

**Materials:**

* 1 – 10 mL graduated cylinder
* 1 – 100 mL graduated cylinder
* 1 – 250 mL beaker
* Chromatography dye (aka clothing dye)
* Eye dropper

**Steps (Procedure):**

1. Put on safety equipment
2. Gather materials
3. Fill 250 mL beaker with approximately 200 mL of water
4. Add a chromatography dye of your choice
5. Measure 10 mL of colored water in the 10 mL graduated cylinder
6. Get other members of your group to confirm if it is indeed 10 mL
7. Get your teacher to confirm that it is indeed 10 mL
8. Adjust the volume if needed to get exactly 10 mL
9. Repeat steps 5 to 8 changing who is measuring the water
10. Measure 56 mL of colored water in the 100 mL graduated cylinder
11. Get other members of your group to confirm if it is indeed 56 mL
12. Get your teacher to confirm that it is indeed 56 mL
13. Adjust the volume if needed to get exactly 56 mL
14. Repeat steps 10 to 13 changing who is measuring the water
15. Hand in your results

**Observations:**

Fill table in below only 1 table needed per group

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| --- | --- | --- | --- |
| Who measured the water | Does your group agree that it is the correct amount | If there was too much or too little how did you fix this? | Sources of error |
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**Discussion Questions:**

Answer individually on separate paper

1. Which measure meant was more difficult to achieve?
2. Why is it important to accurately measure with a graduated cylinder?
3. How/when do you think you will use this skill in this class? Explain.

**Conclusion:**

Answer individually on separate paper

1. Were you able to accurately measure volume with a graduated cylinder?
2. Was this lab useful? What improvements could be made?