## Measuring the Rainbow

Objectives : to develop skills measuring chemicals with a graduated cylinder. to practice using the metric system. to test precision and ability to follow directions. to practice lab safety procedures.

## Procedure:

Part 1:


Put on your goggles
Label 6 test tubes in order : A, B, C, D, E \& F.
Fill a beaker half full with water. Use this to rinse your graduated cylinder and test tubes.
The second beaker is for contaminated waste water.
Into test tube A, measure 25 mL of RED liquid.
Into test tube C, measure 17 mL of YELLOW liquid.
Into test tube E, measure 21 mL of BLUE liquid.
Part 2:
From test tube $C$, measure 4 mL and pour into test tube $D$.
From test tube E, measure 7 mL and pour into test tube D. Swirl.
From test tube E, measure 4 mL and pour into test tube $F$.
From test tube A, measure 7 mL and pour into test tube F . Swirl.
From test tube A, measure 8 mL and pour into test tube B.
From test tube C, measure 3 mL and pour into test tube B. Swirl.
Save your results. Measure the contents of each test tube and record how many mL were found in each test tube.
Answer questions.

Data : Table 1 Test Tube Results (set up your own table using this as a model)

| Test Tube | Color of Liquid | Amount of Liquid (mL) |
| :--- | :--- | :--- |
| A |  |  |
| B |  |  |
| C |  |  |
| D |  |  |
| E |  |  |
| F | Total liquid Test Tubes A-F | mL |
|  |  |  |

## Analysis/Results:

1. Name the colors that you created.
2. How many mL of liquid were in each test tube at the start of this lab?
3. Why is it important to follow directions exactly?
4. What would have happened if your measurements were not correct?

Look at your hands. Do you have any stains on your hands? If so, those stains represent chemicals that would be on your skin right now!
5. How many mL of liquid did you have at the end of the lab?
6. How many should you have?
7.What are some reasons why you may have more or less than when you started?

Conclusion: Write a paragraph with COMPLETE SENTENCES about what you learned from this lab. Make sure you EXPLAIN and SUPPORT your statements.
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