Name _____ Date _____ Class _____

DATASHEET 7 STUDENT WORKSHEET

DISCOVERY LAB

Layering Liquids

You have learned that liquids form layers according to their densities. In this lab, you'll discover whether it matters in which order you add the liquids.

MATERIALS

- liquid A
- liquid B
- liquid C
- beaker or other small, clear container
- 10 mL graduated cylinders (3)
- 3 funnels

SCIENTIFIC METHOD

Make a Prediction

1. Does the order in which you add liquids of different densities to a container affect the order of the layers formed by those liquids?

_____

Conduct an Experiment

2. Using the graduated cylinders, add 10 mL of each liquid to the clear container. Remember to read the volume at the bottom of the meniscus. Record the order in which you added the liquids.

_____

3. Observe the liquids in the container. Sketch what you see in the space to the left. Be sure to label the layers and the colors.

4. Add 10 mL more of liquid C. Observe what happens, and write your observations below.

_____

_____

5. Add 20 mL more of liquid A. Observe what happens, and write your observations below.

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_____

Analyze Your Results

6. Which of the liquids has the greatest density?

_____

_____

Which has the least density?

_____

_____

How can you tell?

7. Did the layers change position when you added more of liquid C? Explain your answer.

8. Did the layers change position when you added more of liquid A? Explain your answer.

Communicate Your Results

9. Find out in what order your classmates added the liquids to the container. Compare your results with those of a classmate who added the liquids in a different order. Were your results different? In the space below, explain why or why not.

Draw Conclusions

10. Based on your results, evaluate your prediction from step 1.