

## Mystery Solution

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Per: \_\_\_\_\_

## PreLab Questions

Use your current understanding to define the following terms.

1. Solute- \_\_\_\_\_
2. Solvent- \_\_\_\_\_
3. Solution- \_\_\_\_\_
4. Concentration- \_\_\_\_\_

## Laboratory Directions

Your teacher has made a standard solution. It is your job to make a matching solution. Within your lab group, design a procedure to make this solution and then perform this procedure. You will then compare your solution to the teacher's solution.

**Materials:** (decide and list what materials your group will use)

**Procedure:** (make a detailed procedure of what you will do)

**Data:** (design a data table for the data you will need to collect)

### Conclusion Questions:

1. How close to the standard solution was the solution you made? Include absorbance or transmittance data or color comparison in your answer.
2. Is your response to the first problem a qualitative or quantitative description? Explain your answer.
3. What were the solute and solvent in your solution?
4. How could you measure the concentration of the solution you prepared?
5. Why is it important to know the concentration of a solution and to be able to replicate that concentration?

### Is It a Solution?

Directions: For each solution you observe write down what is in the potential solution. Then in the second column state whether it is a solution or not. Finally, support your answer with reasoning.

#	What is in it?	Is it a Solution?	Reasoning
1			
2			
3			
4			
5			
6			
7			
8			