

Name: _____

Date: _____

Using the Scientific Method in Plant Lab

Mrs. Marsigliano

Do Now: Write down the steps of the Scientific Method below:

1. _____
2. _____
3. _____
4. _____
5. _____

Background:

Scientists learn by asking questions and coming to conclusions. In order to discover more, scientists design experiments based on their questions or observations. You will be a scientist, and design an experiment using the scientific method. You will be able to record the outcome using your observations, and come to a conclusion about your experiment.

Experiment:

Your experiment will be based on a question regarding plant growth. You will choose what you would like to experiment with using some of the following *materials*:

- potting soil
- sugar water
- salt water
- tap water
- seeds
- sunlight (windowsill) / lack of sunlight (cabinet)
- paper cups

Directions:

Using the materials below, write a hypothesis that you will test. A hypothesis should be a "if...then..." statement.

My *hypothesis* is:

In order to test your hypothesis, you will perform a controlled experiment.

What will be the **controls** to your experiment?

1. _____
2. _____
3. _____
4. _____
5. _____

What will be the **one variable** you will be testing?

1. _____

Procedure:

The procedure you will write for an experiment must be every detailed. Each and every step you complete must be written down. (Remember, a procedure should be so clear and detailed that a student in California could pick up this lab and follow the same exact procedure you followed.)

Write down the procedure you will follow in your experiment to test your hypothesis. (You may not use all of the lines provided below, or you may need more lines to write your complete procedure)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

Data:

Draw a table that you plan to use in order to record that data of your experiment.

Results:

Place your results in a graph or chart.

Conclude:

What can you conclude from your results? Be sure to address your original hypothesis.