

The Hypothesis Experiment

Objective: In a small group, you will develop a testable hypothesis regarding the “environment” at Westminster College. You will design an experiment and collect data to test the hypothesis. You will process the data to determine if the results support your initial hypothesis. Be creative!!

The Rules:

- You are restricted to the Westminster College campus.
- The experiment must involve a quantitative measure.
- The experiment can only require basic equipment (thermometer, tape measure, etc.)

Guiding Questions:

1. What are some interesting **observations** that you have made about the “environment” at Westminster? (Try to come up with three.)
2. What additional information (**background research**) would help you to better understand these observations? Where can you get this information?
3. Develop your **hypothesis** based on one observation and related background research.
4. How will you **test your hypothesis**, *i.e.*, what is your **experimental design**?

What is your **sample**?

How many **replicates** will you test/measure? Why?

How will you **collect** your data? (Which equipment is needed to perform the experiment?)

Timeline:

- Have your experimental design approved before the end of lab **today**.
- Collect your data by **Tuesday February 12th**. (We will **analyze and informally report** the data in class on Tues.)

The Scientific Method

