



## Hydrating Beans: Writing your own Lab Report

TOTTEN  
SCIENCE

### Introduction

You have been learning about the process of the scientific method. In this activity you will have the opportunity to develop the components of the scientific while testing an independent variable. The experiment will be done entirely in class using materials provided by your teacher using your prior knowledge as well as re student will write up an individual report using the components of the scientific method.

While the Goal of the experiment may seem simple, when you think about how to proceed you may be confronted with obstacles. If you get stuck please work with your lab partner and call your teacher over if you need further assistance. Remember that the focus of the last few weeks in our class has been measurement, science skills and the scientific method. This project will wrap up all of these into one project as well as link us to our next unit: Ecology

**Your Goal: To measure the length, width, mass, and volume of 5 dry beans versus hydrated beans and graph the data.**

Hydrate-to combine chemically with **water**.

### Materials available (not all materials will be used):

lima beans	small cups	tap water	test tubes
beaker	food coloring	thermometer	paper towels
metric ruler	hot plate	balance	salt
marker / pen	dictionary	graduated cylinder	masking tape

### Procedure for this Assignment:

- You will be responsible for writing up your procedure for the lab. Be as specific as possible.
- Describe the steps you will take to make the measurements.
- Identify the materials you used in your experiment.
- Identify the equipment you need to use and explain how to properly use the equipment. Refer to the measuring devices we used in class in the first measurement lab.
- Record any measurements you make (*You need to measure at least 5 beans*). Label the beans so that you can check them the next day.
- You will be able to start the lab on Day 1 and complete it on Day 2.
- All questions should be answered on separate loose leaf paper. The entire lab report should be submitted with a cover.
- Cover should be on plain copy paper and include:  
Title of Lab, Appropriate Illustration, Name, Class

## Key Tips

- Measure, measure, measure! Size of beans, amounts and numbers of materials used etc. A focus of this lab is your attention to detail. You should describe what needs to be measured in your procedure.
- Purpose: comes from the instructions above
- Hypothesis: should follow the format below in order to get full credit:  
“If (I do this Independent Variable) to the beans to hydrate them then (this Dependent variable) will happen because (give reason why!).”
- Identify Independent Variable (what you will do to affect bean hydration)
- Identify the Dependent Variable (what you will measure to show the effect of your independent variable.
- Create a data chart that shows what you measured on Day1 and Day 2
- Create a graph that illustrates the Data from your charts
- Use the questions at the end of the worksheet to help you plan your analysis and conclusion. All of these must be answered in your section using paragraph form

Use the Worksheet as an organizer for your work and data. This will be considered the first draft of this lab report. You must then use this rough draft to create the Final Draft that will include:

- Correct spelling
- Proper grammar
- All required elements
- Correct and complete sentence structure (no abbreviations).
- Accurate data charts and graphs
- Materials may be in list form
- Procedure may be in list form
- Research/ background, analysis of data and conclusion must be in paragraph/ complete sentence form.