

## Lab Report Format

Follow the following lab report format whenever submitting a formal, typed lab report

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Your name

Your partners' name(s)

Date of the experiment

### Title of the Experiment

#### **1) Purpose:** *Why are you doing the lab?*

Ex. The purpose of the lab is to determine how different types of soil affect the growth rate of plants.

#### **2) Hypothesis:** *What do you predict will happen in the lab?*

Ex. Coarse sand particles will sediment more quickly than fine sand particles because the particles are larger

- Do not use "I think" in your hypothesis, it should be a scientific statement, not a thought
- You must support your hypothesis with scientific reasoning. After your prediction, use the word "because" and explain your prediction.

#### **3) Variables:** *What are the independent variables, dependant variables, and controls in your experiment?*

Ex. Independent variable: Type of soil plants are grown in  
Dependant variable: The rate of plant growth  
Controls: amount of water, amount of sunlight

#### **4) Materials:** List all the materials used in the lab

Ex. Plants  
Soil  
Water

#### **5) Procedure:** *What steps did you follow while performing your experiment?*

- Write a numbered list, not in paragraph form
- Write in present tense
- Include all materials used in each step
- List all precise quantities with units
- Labeled diagram of set up (when necessary)

## **6) Observations**

- List qualitative observations in point form
- Include quantitative observations in a **data table**:
  - Data for all measurements must be in the form of a table
  - All data measurements must be included in this section

## **7) Analysis:**

### **a) Calculations (when necessary)**

- If you performed any calculations, a sample must be provided in this section

### **b) Graph (when necessary)**

- It may be a line graph or a bar graph depending on the type of data you collected
- Graphs should be made using Excel, only in certain special cases should graphs be done by hand
- Your graph must have a title including the names of the independent and dependent variables (independent versus dependent variable)
- The x axis (independent variable) and y axis (dependent variable) on your graph must have a title including the appropriate units

### **c) Analysis (should be written in a paragraph)**

- Summarize your results (data tables and graphs) using scientific language.
- Discuss whether or not you think your results are valid (was it the result you were expecting?- if not, explain what you think should have happened).
- Explain your results using scientific language and theory (taught in class or researched online- if you refer to research, provide a reference).

## **Conclusion:**

- Summarize your results in one sentence. This should be written as an answer to the experimental question or task.
- Say if your results agree or disagree with your hypothesis.
- Explain any mistakes you think you made during the experiment.
- Suggest how you could improve the procedure if you were to do the lab again.
- Propose a new experimental question, based on your findings