

Writing a Laboratory Report

Date

Title

Purpose / Research Question

- What exactly do you want to know as a result of conducting this experiment?

Background or Concept / Skill Check (not in every lab)

- Theory or background material related to the experiment.

Materials / Apparatus

- List all laboratory equipment and other materials needed to perform the experiment.

Procedure

- Describe each step of the procedure so that someone else could perform the experiment following your directions.

Data, Observations, Diagrams, Graphs & Sample Calculations

- Include in your report all of the material that you found necessary to test your hypothesis:
 - Observations
 - Data (should be in tabular format)
 - Graphs(s) –
 - x-axis = independent variable/ abscissa
 - y-axis = dependent variable/ ordinate (this variable depends on the x variable)
 - Sketches or diagrams.

Discussion Questions (not in every lab)

- Answer any discussion questions that are posed in the laboratory.

Data Analysis

- Describe your procedural methods and discuss your findings.
- Describe the implications of your findings. If possible, answer the research question based on your findings. (**Make sure that you discuss any trends that are evident from the graphs of your data.**)
- Include error analysis and suggestions for repeating the experiment to better answer the research questions. What still remains unknown?

Concluding Statement(s):

- When testing a hypothesis, there are only three possible conclusions: Data support the hypothesis; data reject the hypothesis; or data are inconclusive to support or reject the hypothesis.