

Lab Report Format

Your lab report should have several different sections, outlined below:

1) Introduction

What is the nature and objective of the lab? Describe the fundamental question being asked. This is a general question and can be written as a statement or a question. Describe the testable question. What are the specifics of the actual experiment?

2) Background

The background section contains any information used to conceive, design and predict the outcome of the experiment. Thoroughly discuss the biological significance of the questions. Concepts, content, and logic behind the design of the procedure and hypothesis (prediction) are discussed. It should include any knowledge, reading, or research done prior to conducting the experiment.

3) Hypothesis

This should be an "If...then...because" statement which identifies the cause/effect connection between the manipulated and responding variables and the reason for this prediction.

4) Materials/Methods:

A listing of all the materials (along with the specific quantities used) and the procedures followed. If appropriate, write the procedure as a flow chart. The procedure should be written so that anybody else who wants to do the lab can follow your instructions to do it.

5) Data

Include the information collected during the course of the experiment. This may include both quantitative and qualitative observations. Diagramming/drawing and journaling are sometimes the best ways to present qualitative data. Quantitative data should be presented by way of tables and charts with proper units. Care should be given to make sure data is as accurate as possible.

6) Analysis

Explain what was expected to occur, according to the background section. Explain what actually happened in the experiment by

summarizing the data. Present and discuss any graphs. Explain why these results occurred by incorporating information learned since the lab was started. If computer programs were used, explain the analysis done. Talk about the Chi Square test and the validity of your experimental data.

7) Discussion and conclusion

Explain why the data supports or rejects the hypothesis within the limits of the controlled variables. Revisit the fundamental question. Explain whether the experiment provides data to help answer the fundamental question. Based on the analysis, state a minimum of 2 additional questions that could be investigated to better understand the fundamental question