

Laboratory Format

Title:

- Reflect the factual content with less than ten words in a straightforward manner
- Use keywords researchers and search engines on the Internet will recognize

Introduction:

- Define the subject of the report: "What question will you explore?"
- Provide background information and relevant studies: "What knowledge already exists about this subject?"
- Outline scientific purpose(s) and/or objective(s): "What are the specific hypotheses and the experimental design for investigation?"

Materials and methods:

- List materials used, how were they used, and where and when was the work done (especially important in field studies)
- Describe special pieces of equipment and the general theory of the analyses or assays used
- Provide enough detail for the reader to understand the experiment without overwhelming him/her. When procedures from a lab book or another report are followed exactly, simply cite the work and note that details can be found there.

Results

- Concentrate on general trends and differences and not on trivial details.
- Summarize the data from the experiments without discussing their implications
- Organize data into tables, figures, graphs, photographs, etc.
- Title all figures and tables; include a legend explaining symbols, abbreviations, or special methods
- Number figures and tables separately and refer to them in the text by their number, i.e.
 1. Figure 1 shows that the activity or the activity decreases after five minutes (fig. 1)

Discussion

- Interpret the data; do not restate the results
- Relate results to existing theory and knowledge (actual results vs. expected results)
- Clearly indicate whether you accept or reject your hypothesis
- Explain the logic that allows you to accept or reject your original hypotheses
- Speculate as necessary but identify it as such
- Discuss possible sources of error (2 minimum)
- Include suggestions for improving your techniques or design, or clarify areas of doubt for further research

Lab Questions:

- Answer and Number all questions and label as such (pre-lab, lab, big Idea, etc.)