

WRITING LAB REPORTS

A lab report is a neatly written account of your experiment, as described below. It should be an impersonal account written in third person, with the exception of the conclusion. The report should be written with a pen or typed. The report should include the following information, with headings to begin each section.

Title (list of the heading is not necessary):

- The title should describe the topic studied in one complete and extremely detailed sentence that includes subject, location and duration of the study.

Introduction:

- Background information for all topics that will be discussed should be defined and described in detail, including an explanation about why the topics are useful for this study (present tense).
- Clearly state the purpose of performing this lab (future tense).
- Explain exactly how you intend to achieve the purpose (future tense).
- Give a clearly state hypothesis that tells you what you think will be the answer to the question you are studying (future tense).

Methods

- Should be two lists of materials, which are needed in the lab: list of chemicals and a list of equipment.
- The procedure is an impersonal set of directions on how to perform the lab. It should include detailed directions. The directions should be such that if any person needed to perform the lab, they could use only your directions to guide them safely through it.
 - The procedure should **not** include:
 - any personal nouns (I, we, you, us, . . .)
 - any irregular event that went on specifically in your lab
 - any calculations
- Do not include an unnecessary information

Results:

- WRITE OUT observations that were made during the lab (atmosphere conditions, consistency, etc.) Such observations should be recorded.
- Include how your DATA was collected or determined.
- Include sample calculations. This section should **not** include all calculations but instead an example of each type of calculation needed to perform the lab. A sample calculation should show formulas and each step of the mathematical procedure used. Be sure to include labels and units.
- Include a data chart that contains the data collected and is neat and clearly structured.
- Include an appropriately labeled and titled graph for all data collected.

Analysis:

- Discuss what **happened** in the lab. (past tense)
- Explain what the **data means**, what information is it providing, what can be learned from it.
- Describing the **major trends** or lack of trends, averages and directly or inversely correlated data.
- Give details on anything that **went wrong** in data collection and analysis.

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Conclusion: [The personal part of the lab write-up]

- The conclusion of a lab report is the most personal part of the lab and has three different parts.
 1. State any conclusions that can be drawn from the data you. Revisit your hypothesis, comparing what you thought before you gathered your data to what you found after you analyzed your data collected (tense)
 2. Next write about what parts of the lab you would do different or would pay more attention to if you performed the lab over. Report any potential errors, avoiding exaggeration, overstatement, or minimization of errors (past tense).
 3. Explain other experiments that might be performed to supplement the conclusions to this experiment (future tense); where does your data lead you next? How does this lab relate to real world issues? How would it help?

Things to be careful of while writing your report:

- Conclusion should **not** be short (**APPROXIMATELY** one page) and contains all three parts.
- Be sure all **numbers have units** and are written correctly, even on the data table
- Include visuals when necessary. Visuals help describe the physical aspects to a lab, and help quickly show a comparison in data. Visuals should not be overused, but is essential to include.
- Cite any information that is not assumed common knowledge. If it is not known by the everyday person, it should include a citation and source.

*If you complete the lab report ahead of schedule, the instructor will gladly look over your report and inform you of any mistakes, without deducting points from the grade.