



Writing Your Lab Report

This handout provides you with some basic guidelines on the purpose, structure and style of writing your lab report. You should check with your instructor if they have particular formatting requirements.

Purpose: the main purpose of your lab report is to convey information in the most clear, concise and precise manner possible. Note the purpose is to *inform*, not to impress.

Structure: A lab report can include the following sections:

1. Title/Title Page – this reflects the content of the report. Often the title page includes your name, the name(s) of your lab partner(s), your instructor's name, the due date.
2. Abstract – **you may not need to write an abstract.** Check with your instructor. If you do need to write one, an abstract is a short paragraph that states the research question/hypothesis, methods, results, and any conclusions.
3. Introduction - this gives the reader the background to problem. Provide enough information and theory here so they will be able to understand your experiment. Include what was being asked, and why.
4. Materials and Methods – this is the 'recipe' part, so include enough detail that your experiment can be replicated by someone else. Describe any statistical methods you used. Do not include any results or discussion at this point.
5. Results - describe what you found. Include tables, figures or graphs if they help to show the data more clearly.
6. Discussion - fully discuss and interpret your findings. Explain how your data supports your hypothesis. If your data does not support your hypothesis, try and explain why not. Remember to include any limitations or errors in your experiment, and how you would address these in future experiments.
7. Conclusion - a short statement which summarises the main finding(s).
8. Acknowledgements - **you may not need to write acknowledgements.** If you do, include any funding organisations and technical support that have helped.
9. References and citations - Must be accurate and in the correct format. If unsure, check.



Style: There are several ‘conventions’ or ‘rules’ when writing in the sciences. Following these rules will help your lab report sound like it should i.e. reasonably formal and concise.

- 1. Remove personal pronouns:** avoid using “I”, “we”, “my”, “our”, “their” etc. Instead, use “the” or “it”. For example, instead of “We swabbed the plates” use “the plates were swabbed”.
- 2. No contractions:** do not shorten words by inserting apostrophes (e.g. can’t, don’t, it’s). Instead, write all of the words, e.g. cannot, do not, it is. [the possessive form “its” is alright, as there is no apostrophe in the word].
- 3. No exclamation marks or rhetorical questions:** as the purpose of your lab report is to inform, not impress, do not emphasise anything with an exclamation mark (e.g. “the results were amazing!”) or ask a rhetorical question (e.g. “but what could these results mean?”).
- 4. Keep the tone formal:** avoid using ‘casual’ or ‘slang’ language.
- 5. Active or passive voice?** Try and use the ‘active’ voice in your writing. The ‘passive’ voice is acceptable, but avoid using a ‘distorted passive’ voice. For example:
 - Acid-etching removed the rust (active).
 - The rust was removed by acid-etching (passive).
 - The removal of the rust was.....by acid-etching (distorted passive).

Look for words like ‘achieved’, ‘performed’, ‘carried out’, ‘accomplished’ etc as danger signals that you are using the distorted passive voice.

- 6. What tense?** Check with your instructor; however, the general guideline is to use the present tense for the introduction, discussion and conclusion, and the past tense for describing methods and results.
- 7. What are the rules for numbers?** If the number is for a standardised, measurable item, always use numerals, no matter how big or small the number (e.g. 2.4 cm, 3km, 30µm, 100ml, 3000V). If the number is not for such an item, then numbers of ten and less are written out; above ten, numerals are used (e.g. three fish, 12 bones, 314 plants).
- 8. The word ‘data’ is plural:** so match it with a plural verb e.g. the data *are* interesting, the data *show* that...(not ‘the data is interesting’ or ‘the data shows that’). The singular for data is ‘datum’.

