

Points to Remember:

1. Writing should be in your own words. If you use a quotation from a source, it must be in quotation marks and source should be cited.
2. Citation format should be detailed by the instructor. Most citations follow those of a major scientific journal (*Nature or Science*). Many use APA, such as:
 - a. Mengel, M. & Levermann, A. Ice plug prevents irreversible discharge from East Antarctica. *Nature Clim. Chang.* **4**, 451–455 (2014).
3. Do NOT use the phrase *I think* or *I believe*. This is a scientific paper; your beliefs do not affect your results.
4. At this time active voice is preferred in most scientific fields, even when it necessitates the use of “I” or “we.” It’s perfectly reasonable to say “We performed an electrocardiogram” rather than to say “an electrocardiogram was performed,” or “in this paper we present results” rather than “results are presented in this paper.” Almost every current edition of scientific style guides recommends the active voice; however, if you are unsure, check with the instructor who will review your paper to see whether or not they prefer the passive voice.

Document Format:

- Introduction – funnel format (general to specific)
 - Start with a generalized sentence about the topic and add details as you continue.
 - Background information should include an overview of the topic in your own words.
 - State the purpose of the experiment. The purpose will depend on the experiment being done. For example, in Bio 150, each lab has a list of objectives on the first page. This can be condensed into a purpose statement.
 - The last sentences of the introduction should be your hypothesis and *If...then* statement
- Materials and Methods
 - You must include enough detail to allow another scientist to repeat your experiment.
 - Briefly describe how the equipment and materials were used to conduct the experiment.
 - Make sure you include times if you are waiting for things such as checking weights or taking data every few minutes.

- Results

- Write a brief summary of your results in paragraph form. Reference your data tables and graphs.
- Data tables should be numbered and include a title.
- Graphs should include a title and axes should be labeled appropriately. Include units of measurement on axes as well.
- Conclusion
 - Interpret your results and offer conclusions
 - Support or reject your hypothesis.
 - What do the results mean? Do they support or reject your hypothesis?
 - Cite your data (tables and graphs) to determine the support or rejection of your hypothesis.
 - Explanation
 - Explain why you think you got the results you did. If your results failed to support your hypothesis, explain why you think this occurred. (Be sure to report data exactly, it's ok if you reject your hypothesis!)
 - Conclusion
 - Explain what you learned by performing the experiment. Discuss whether your results are consistent with scientific knowledge about this topic. If your hypothesis was not supported, can you suggest an alternative hypothesis as well as changes to the experiment.