

Lab Report Format for AP Environmental Science

Lab reports are to be typed (Times New Roman, 12 point font; 1 inch margins on all sides). The report should be written with complete sentences, except in the Materials section and in tables and graphs. All lab reports should be written in the 3rd person, past tense, and passive voice. Write in a passive voice, avoiding the use of “I” or “We” in your descriptions (you did the experiment; you don’t need to reinforce it!). For example:

- *We placed test tubes into the test tube rack and we then added 4ml of water to each. (who else would have?)*
- *Test tubes were placed in a rack and 4ml of water was added to each. (Better!)*

Use proper English grammar. Cite sources using in-text parenthetical citations according to the APA style. Paraphrase. Do not plagiarize.

The Report:

Heading:

Your Name

Lab Partners’ Names

Date experiment was completed

Title

The title of your report should be a description of what you tested for in the experiment. For example, if you were testing the effects of colored light on the rate of photosynthesis of plants, a good title might be “*The Effects of Red and Green Light on the Rate of Photosynthesis in Pea Plants*”. A poor title would be “*Photosynthesis*”.

Abstract: Write a concise summary of your project that includes the problem, hypothesis, procedures, principal results, and conclusions. Do not exceed 250 words.

Introduction: Why is the information from this experiment important? How does it apply to “real life”? Use this area to give the reader some background information so that he/she may understand and interpret the results of your experiment. Assume that the reader has some basic knowledge of the subject. Cite any background literature you may have used, including your textbook, notes, periodicals, or online resources. Paraphrase, but don’t plagiarize! Use footnotes/citations where appropriate. Include your hypotheses in this section, which can be written as “if...then” statements.

Materials: These may be listed. Include only what you actually used.

Procedure: This may be written in outline or paragraph form. Use diagrams, if necessary to explain your setup. It should be detailed, Give a step-by-step, description of how this experiment is conducted. You should not leave anything out. Someone else should be able to conduct your lab exactly using the same method. Don’t copy it verbatim (will require you to use your own words not the words written on the lab document).

Results: Here includes data tables*, graphs*, and any calculations (can be handwritten—must show all steps)* you may have done. All tables and graphs MUST be computer generated (no hand written tables or graphs). Written, objective observations (these are items you wrote down in your lab

notebook while the lab was being conducted)*, should be included here as well. Include any difficulties or abnormalities you may have experienced during the experiment.

Analysis: This is the meat of the report, and thus the majority of the grade. Interpretations of your data would be included here. Use questions given to you as a guide towards analyzing your data (IN PARAGRAPH FORMAT. NO NUMBERING). Identify trends in your data, being as objective and quantitative as possible. For example:

- “Group 1 had a larger amount” (*qualitative and vague*)
- “Group 1 had 24% more small-bodied ants” (*Quantitative and detailed. Better!*)

Decide what errors may have influenced the results of the experiment and report those. Be **Scientific** about your results. *If there are ways to improve the activity or any **sources of error**, mention them here.*

Sources of Error: events that were unavoidable within the parameters of the experiment that may have effected the outcome. This might include weather conditions that made measuring difficult or the amount of time you were allowed to test. Sources of error **DO NOT INCLUDE** incorrect calculations or measurements may have been ‘off’. These are avoidable mistakes that can be rectified. Why would you turn in work you thought was wrong?

Conclusion: Was your hypothesis supported or rejected? A few sentences is all you need to sum of the activity. Do not go into detail or get wordy here (that should have been done in the analysis). For Example:

- “In this experiment, the conclusion was reached that ants in prefer tuna over honey” (*verbose*)
- “Ants prefer tuna over honey”. (*direct*)

***Literature Cited:** Use the most appropriate reference material for your experiment. College research sites, governmental environmental agencies and non-profit environmental organizations are generally good references. It is up to you to seek it out and cite it properly. *Remember, this includes your textbook and lectures. Use APA formatting.

*May not be present in every lab report.