

Pre-AP Biology

Lab Report Form Guidelines and Format

Report should be no more than 1 paper in length; 1" margins on all sides



Header: Use MLA Header on all lab reports (5 points)

Title: The name of the lab or experiment. This is NOT the same as the title on the handout. (5 points)

Purpose/Problem: The purpose or problem states the reason(s) why you are doing the experiment. Write down the problem that will be investigated or experimented. The purpose can be stated as a question. (10 points)

Hypothesis: The hypothesis is your proposed explanation for an observation, event, or phenomenon. It is stated as an "If..., then..." statement - If (I do this), then (this will happen). The hypothesis does not have to guess the correct outcome, but the experiment must be set up to *test the hypothesis*. In other words, you need to be able to measure both "what you do" and "what you expect will happen." (10 points)

Independent Variable: This is something that you change during the experiment - the "If" part of your hypothesis. "I" have control over changing it. You only have one independent variable in an experiment. (5 points)

Dependent Variable: This is what happens, reacts, responds, and changes as a result of your independent variable - the "then" part of your hypothesis. This is the data you record during an experiment. (5 points)

Control: This is the test group that has "normal" conditions – it does not get tested with the independent variable. It is there to compare against the test group that was exposed to the independent variable. If there is no control, you must state so in your report. (5 points)

Constants: These are the pertinent conditions that are held the same or are identical in both the control group and the test group. You should mention at least three. (5 points)

Materials: This is a list of all equipment and chemicals used to do the experiment. You should include quantities (amounts). (5 points)

Procedure: This is written in paragraph form. It tells exactly what you did and is written in the past tense. Be specific. The procedure you use affects the results so it is important that you be accurate in narrating what you did. Labeled diagrams of your set-up is not required but is highly recommended. (10 points)

Observations and Data: The observations tell exactly what happened when you did the lab. *An observation is measurable information that comes to you through your senses.* Results include experimental (raw) data in the form of well-labeled tables, graphs, drawings and other observations. Place your observations and data in this section without discussion or comment. (15 points)

Conclusion/Summary*: This lab (experiment) investigated _____. In order to study the problem we _____. My results showed _____. During the experiment, I noticed that _____. As a result, _____. The data (supports/ does not support /partially supports) my hypothesis, which states that _____. I believe the results are (accurate/ inaccurate) because _____. In order to further investigate this problem, next time I would _____ because it may show that _____.

*The Conclusion/Summary outline written above is simplistic in its approach. Please take note that it is in this section where you will EXPLAIN and account for any missing or inconsistent data and possibly sources of error in your procedures. (15 points)

Mechanics: Is your work neat and legible? Free of spelling and grammatical errors? (5 points)