**AP/HONORS Biology Formal Lab Report Format**

For several of the required AP Biology Labs, you will construct a lab report using the guidelines listed below. You will need to be extremely familiar with these labs for the AP Exam in May.

* Lab reports will be typed and can be submitted electronically (see instructions below).
* Lab reports should be written in APA format (https://owl.english.purdue.edu/owl/).
* This write-up is to be your own work. Once you finish taking data, you are on your own. Except for the data, NOTHING in this report (including graphs) should be identical to your partner’s.
* Any information taken from outside sources must be properly cited. Large amounts of information should not be copied and pasted into your report—even if it is cited.
* Times new roman, 12pt, double spaced, continuous, do not bold anything

**Format:**

* **Title** (should be detailed enough to give an overview of the lab. “Enzyme Lab” is too vague. “The Effect of Temperature, pH and Salinity on Enzyme Activity” is better.

**Abstract** (Center header)- Write 2 key sentences related from each of the sections, this will give the reader a good overview of the paper

* **Introduction**
	+ Background Any pertinent background information should be included as an introduction to the lab report.
	+ Include variables (independent and dependent); state specifically what you will be measuring.
* Examples:
	+ - * Good: “To measure the effect environmental variables such as light intensity, humidity, and wind on the rate of transpiration in plants”.
			* Not so good “To look at the effect various conditions on water loss in plants.”
		- Variables
			* Independent—Include the variable(s) and the conditions.
			* Dependent—State the variable(s) and discuss how it will be measured.
			* Identify the control group and the experimental group.
			* Experimental Controls/Constants—experimental variables that will be held constant; include at least two.
	+ Hypothesis will also be included in this section.
		- * Should be written as an “If….then” statement
			* Use clear and precise words
			* Explain what observations led you to come up with your prediction.
* **Procedure**
	+ In paragraph form, describe what you did.
	+ Provide a thorough *overview,* and *explain* what you are doing.
	+ Do not copy the procedure word for word (if you had lab instructions).
	+ Should include enough detail that someone would be able to replicate your experiment by reading your report.
* **Data/Observations**
	+ Include data tables and any charts and graphs. It is ok to copy/paste data tables I post on my website (for group data).
	+ Charts and graphs should be computer generated.
	+ All graphs should be based on class data unless otherwise indicated.
* Requirements for a good graph:
	+ - * Title
			* Label axes with title and units
			* Calibrate axes in regular increments
			* Plot all points
			* Add a line or curve of best fit— NOT a connect the dots graph
			* Include a legend if more than one set of data is on the same graph.
			* Data section should also include a short paragraph describing observations, or qualitative data.
* **Conclusion**
	+ What did you learn by doing this experiment? Explain your findings.
	+ Go back to your purpose and answer the question that was posed.
	+ Include specific numerical data in the discussion.
	+ Include background information on the topic to frame your discussion.
* **Analysis**
	+ Answer all analysis questions in the lab handout (or other questions I may specify). For some labs, there may not be any questions.
	+ Analyze your data, explaining any possible sources of error, how the investigation could be improved, and any new questions that arise.
* **Work Cited (Centered)**
	+ Any outside sources used must be documented in the bibliography in APA format; failure to do so is plagiarism.

Submit electronically