GBA HIGH SCHOOL SCIENCE LABORATORY JOURNAL

The following general rules apply to your lab journal:

1. A spiral (one subject) notebook must be used.
2. Always use third person (NO personal pronouns --- me, I, you, we, etc.) when writing all parts of a lab report. (Use HE, SHE, THEY, THEY, THEIR, THEM, ETC.)
3. The following things should be written clearly in marker on the front cover --- “Subject” Lab Notebook, Teacher name, Student Name, period and school year.
4. Number the pages of your lab notebook in the LOWER RIGHT HAND CORNER. (DO the First fifty now.)
5. On page 1, write the subject, year, class Period and Teachers name.
6. Page two should have the “Table of Contents” written on the top and make two columns, one for “Page” and the other for “Lab Title”. Use a ruler to make straight lines.
7. Begin writing your first Lab on page 5 (this will leave two pages for the Table of Contents).
8. And If a mistake is made in your lab journal, cross it out with a single line through the mistake.
9. SKIP A LINE between every SECTION (not sentence).
10. TITLE and UNDERLINE each section $ then begin writing on the NEXT LINE!

Your Lab Report should be written using the Following format: (Be sure to left align & underline headings.

**\*\*\*\*\* Before the Lab\*\*\*\*\*\***

**Title:** (Center on the top line; on the right of line 2, put date & lab #)-**5 points**

* The Title should indicate clearly & concisely the subject and scope of report.
* The title should list the variable in the experiment. Ex.) the effects of IV on DV.

**Introduction**: **- 25 points** (paragraph Form)

* The introduction should give background information about the experiment.
* It should also state the purpose/ objective of the investigation.
* This section will be two or more paragraphs in length.

**Hypothesis:**- **10 points** (Single Sentence) included under Introduction.

* The hypothesis should be a single statement telling the exact thing you are trying to prove in your experiment.
* Never write this statement using “first person”. Write the hypothesis in past tense (third person). If, and then statements are OK.

**Materials:** **- 5 points** (SINGLE SENTENCE)

* This section should be written in sentence form and name all of the materials and equipment used.
* Be sure to include specific amounts and concentrations of chemicals used.
* Start the statement. “The materials used include \_\_\_\_\_\_\_\_\_\_\_\_,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, etc.”

**Methods: (Procedure)** **– 5 points (**Steps: Number)
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* Summarize, in your own words, the step- by -step procedure to be followed.
* This should NOT simple be a regurgitation of procedure listed on the laboratory instructions sheet, however it should be thorough that someone else could use your notes to complete the same experiment and get the same results.
* Write a clear and concise recipe that you can follow in lab.
* Include any safety notes.

**VARIABLES**: List the different variables (INDEPENDENT, DEPENDENT, CONTROLLED) – **10 pts**

* ***Independent variables*** :( sometimes called manipulated variables) the variable that is changed by the scientist.
* What is being tested?
* The cause of the change in the dependent variable.
* ***Dependent variables***: The variables that is being observed and measured
* The data that is collected.
* The “effect” of the independent variable.
* ***Controlled***  variables:
	+ The variables are not allowed to change; those that are controlled by the scientists.
	+ Variables that stay the same.

**Thoughtful organization of data**

**\*\*\*\*\*\*\*\*\*\*DURING THE LAB\*\*\*\*\*\*\*\*\*\***

 **Enter all observations in your lab journal directly from experimental work.**

**RESULTS: (**Data, Questions)- **25 points**

* All data should be collected and organized in a logical order. Results should be illustrated as charts, tables, graphs, &/or diagrams. All graphs should include a title, the independent variable labeled on the horizontal axis, and the dependent variable labeled on the vertical axis.
* All Lab questions and answers should be included also with this section. (NUMBER and UNDERLINE the question & then write but DON’T UNDERLINE the answers) – (10 pts)
* Skip a line between each question.
* Be sure to include the units.
* Absolutely NO erasures or white-out.

**Error Analysis- 5 pts**

Include any important factors that you think may have actually affected your results

**\*\*\*\*\*\*\*\*\*\*AFTER THE LAB\*\*\*\*\*\*\*\*\*\***

Discussion is the most important part of your report, because here, you show that you understand the experiment beyond the simple level of completing it.

**Discussion/ Conclusions**: - **20 points**

The conclusion brings in the total picture of the major concept being considered. Your conclusion MUST CONTAIN YOUR SUPPORTING DATA!

* This is when you give a detailed account of what happened in the experiment.
* Explain all observations and results in your experiment.
* Analyze and interpret why these results were obtained.
* Be sure to tell the significance or meaning of the results.
* Restate the original hypothesis and explain whether the experiment succeeded. If the hypothesis was not correct, you should analyze why the results were not as predicted.
* Explain experimental errors that appear in the results.

Questions MUST BE ANSWERED and CONCLUSION WRITTEN TO RECEIVE LAB CREDIT.