

## SAVE THIS ALL YEAR!

Name \_\_\_\_\_  
Date \_\_\_\_\_ Per \_\_\_\_\_

### **Lab Report Guidelines**

We will complete numerous full scale and mini labs this year in class. All students will be required to learn the proper format and writing of a laboratory report. To assist students in the learning process each lab will require students to write only a PORTION of the report. As the semester progresses, students will complete the writing of each portion. After students have had experience writing each individual portion of the lab report, they will be required to complete at least 1 report including Introduction, Procedure, Data & Conclusion for the remainder of the school year; these will be assigned at the teacher's discretion.

**What is a lab report?** The lab report is written by students in laboratory courses to explore a scientific concept. Its primary purpose is to help students learn something about science. A good lab report does more than present data; it demonstrates the writer's comprehension of the concepts behind the data. Merely recording the expected and observed results is not sufficient; you should also identify how and why differences occurred, explain how they affected your experiment, and show your understanding of the principles the experiment was designed to examine. Students should always check their spelling, use complete sentences, and do their OWN work.

### **A lab report will consist of 6 portions:**

Abstract, introduction, procedure, data, conclusion and works cited

**You will focus on writing the introduction, procedure, data, & conclusion portions of the report in Biology.**

All reports should be in plain text font, "Century Gothic" or similar.

### **Portion Descriptions**

#### **Introduction**-font size 12 left justified

The simplest definition for the introduction is that it answers the questions of "what is the purpose of the lab?" and "what were we expected to learn or understand in this lab?" You should also try and find some way to attach relevance to the experiment here. Find a REAL WORLD connection, by citing an article or some other type of work that can be connected to your classroom work. You must always consider the points...

1) What questions are you attempting to answer?

2) Briefly, what were your general approach and methods. (Remember this is not a detailed procedure, but more of a statement of the methods used).

#### **Procedure**-font size 12 left justified

It is not always necessary to "list" the materials, but you must mention specifically the equipment used when you are writing it into the procedure. For example, when you use a beaker, state the size, and if you use any special equipment, like a prepared slide, you need to include the type, and the company the slide was prepared by. As for the procedure, it should be a detailed explanation of how the experiment was performed. This should be done clearly enough that someone else could reproduce the lab EXACTLY by just reading your report as their reference or directions.

#### **Data**-Font size 12 left justified, includes graphs, charts, and diagrams.

What was discovered? You'll need to include all the relevant data from the lab. As you describe the results you will also have to show examples of any calculations you needed or used in the lab. You are only to present the data, observations and facts in this section. There should be no opinion or discussion included. Charts, graphs and diagrams must be labeled correctly.

**Conclusion**-font size 12 left justified

Analyze/summarize your work. What can you conclude from your results? Was your hypothesis rejected or supported and why? If you have data tables, graphs, or charts, what did they teach you? What can be learned from them? What problems arose (experimental error) and how could they be avoided if you performed the experiment again? What did you think you learned from this lab? Discuss the personal benefits of completing the lab, and communicate an understanding of how these lab results can be useful in the real world. Propose a NEW hypothesis to be tested for further investigation of the topic.

**Grading Rubric****Introduction**

0	1	2	Explains the purpose for the experiment.
0	1	2	Defines what was expected to be learned.
0	1	2	Provides some "real world" application or relationship.
0	1	2	Describes the approach and methods without going into "procedure."

\_\_\_\_/8 points possible

**Procedure**

0	1	2	All aspects of the experiment are clearly explained. Full detail is used.
0	1	2	Equipment is clearly identified in the body of the procedure.
0	1	2	Does not mention any results in this section.
0	1	2	The lab appears to be reproducible based on quality of procedure.

\_\_\_\_/8 points possible

**Data**

0	1	2	All relevant data is included.
0	1	2	Tables, diagrams (labeled), graphs and figures are correctly chosen, built, and identified. Qualitative observations are clear and concise.
0	1	2	Does not summarize or draw conclusions in this section.

\_\_\_\_/6 points possible

**Conclusion**

0	1	2	Explains purpose of the experiment. If hypothesis was made, was it rejected/supported & why.
0	1	2	States the findings of the experiment using specific data examples.
0	1	2	Describes the personal benefits from doing lab; what was learned.
0	1	2	Examines problems with the lab (experimental error) and suggests corrections for future experiments. Proposes a question for deeper investigation of topic.

\_\_\_\_/8 points possible

**30 POINTS POSSIBLE**