A &P 12 DeBou- Revised 22

**Biology Formal Lab Report Guidelines**

Prepare a typed report of your experiment which includes the section titles listed below. These section titles should be used to label each section of your report.

1. ***Title***
2. ***Introduction and Purpose***
3. ***Materials and (Procedures)***
4. ***Results/Data Collection/Analysis***
5. ***Discussion/Questions***
6. ***Conclusion***
7. ***Literature Citation***
8. **Title** –

Be as specific as possible and briefly denote primary topic dealt with during the experiment. Be sure to include your name, date, and lab partner(s).

1. **Introduction** - In this section of the report you should include the following pieces of information:

a. **Background** **information**. Information that explains the experiment that you have conducted. Important terms should be defined in the section. Generally half a page is sufficient for your introduction. References must be included.

b. **Purpose** of the lab and should be clearly stated in the introduction. This is the big question.

c. **Hypothesis** – a testable hypothesis should be included, written in an if-then format ***if required for the lab***.

1. **Materials** A complete list of the materials and apparatus that were used to conduct the experiment should be included in this portion of the report.
2. **Procedures** - In this section of the report you should present the exact steps that were followed in your experiment. Clearly identify the control variables and the measurement techniques used. The procedure should be in your own words and not copied verbatim from the lab manual. If the procedure is identical to one followed in the lab manual then you may refer to those pages, but if you do anything differently then you must note this. A **diagram** of your set up may be necessary. ***If a prelab is completed prior to the lab, a simple reference to the prelab is all that is necessary.***
3. **Observations:** All of the data that was collected during the experiment should be presented in complete sentences, charts, or diagrams. **Diagrams** must be completed in pencil and follow the rules for biological diagrams. All diagrams should be coloured if necessary and labelled clearly!
4. **Data Collection/Analysis** – Data tables and graphs of the data should be included in this section. Make sure that the graph is appropriately titled, full page size and axes labeled. Include a legend if necessary.
5. **Discussion/ Questions** - This portion of the report is used to clearly explain whether the results support or refute the hypothesis being tested. Provide reasons for your interpretation and support your argument with actual data or observations. The discussion questions found throughout the laboratory should be *written and answered* in this section.
6. **Conclusion**: Explain what your findings mean and what conclusions you can draw from the data. Sources of error and suggestions for improvement should be included in this section. Five points to consider are: (1)What did you do in this lab? (2). What did you observe? (3). What did you learn? (4). What were some sources of errors? (5). What improvements, suggestions or further tests could you recommend?
7. **Literature Citation** – Given that some of the information included in your lab write up will have been taken from a published lab activity, you should include a citation of the source. The source(s) used should be cited within your lab write-up (especially in the introduction section) using scientific citation. If you refer to the textbook, please refer. Your introduction and discussion questions will have numerous references in a ***GOOD*** lab report.