**Saugatuck High School Science Department**

**Directions for Writing a Laboratory Report**

**I. General Comments**

1. Be very thorough. Assume that the reader of your report knows absolutely nothing about the experiment you just conducted.
2. Always write in complete sentences and it best if written in 3rd person.
3. Type your report, if possible.
4. When writing your lab report, follow the format outlined below.

**II. The Lab Report Format**

1. **Cover Page**

This page should contain a descriptive title of the laboratory investigation, date, class name, and your name.

1. **Introduction**

In this section, write one to five complete sentences stating the purpose of the investigation. Include background information that explains what caused you investigate your question. Put the table below underneath your introduction.

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| --- | --- |
| **Hypothesis** | **A statement that is a possible answer to the question or problem** |
| **IV** | **Independent Variable** |
| **DV** | **Dependent Variable** |

1. **Materials and Methods**
2. Organize this section of our report very carefully. Include all of the information another student would need to repeat the experiment. (Do not include results and discussion here.)
3. First, under the heading of “Materials,” include a bulleted list of all major items that you used to conduct your experiment.
4. Then, under the heading of “Methods/Procedures,” summarize the procedure(s) that you used to carry out the experiment. Do not copy the procedure word for word. Rather give a general idea of what you did in numbered steps.
5. **Data and Observations**
6. This section is not for the discussion and/or interpretation of data. Simply record what was observed and the data collected.
7. This section should include the results of the experiment in easily understood tables, graphs, and/or diagrams that are labeled, titled, and carefully arranged for the ease of comparison.
8. Accompany tables with anecdotal observations as necessary. Observations should be as detailed and complete as possible. For example, if color changes are observed, such changes should be described.
9. If calculations are called for, include them in this section. All calculations must be clearly labeled and should include an equation written in words describing those numbers placed in each equation.
10. **Discussion**
11. This is the most important portion of your report. Organize this section so that it is clearly understandable.
12. Analyze and interpret the data collected in the course of the experiment. For instance, you should consider the following points: What do your results mean? Is there more than one way to explain your results? What are the possible sources of experimental error? Is further experimentation needed? If so, what should be done?
13. If there are any discussion questions presented in the laboratory, these should be answered in this section of the report.
14. You may find it useful to reread the “Introduction” section (number 2 above) before writing your discussion. Be certain that you have explained how you have accomplished that purpose.
15. **Questions/Further Study**
16. If you have developed questions about your experiment while you conducted it, present them here.
17. Suggest ways that your lab could be improved and any other problems that are related that could be explored in future lab investigations.

**II. Format Summary**

Below is a pictorial summary of the overall format of your laboratory report. Make certain that this format is followed in preparing each of your reports.

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| **Title Page** |  | **Remainder of the Report** |
| Title  Date  Class Period  Name of Experimenter | Introduction   1. a. Introduction   b. Table for Hypothesis and variables  Materials and Methods   1. Materials 2. Methods/Procedures   Data, Observations, and Calculations   1. Observations 2. Data Tables and Graphs 3. Any Calculations   Discussion/Conclusion  Questions/Further Study |