**Lab Report Guidelines**

Each experiment that is submitted for grading will consist of the following sections unless otherwise indicated by your teacher.

***Introduction:*** The introduction will include such things as; definitions of terms and equations as well as some history regarding the topic being studied. Results are not mentioned or predicted in the introduction.

As well the introduction should include a sentence outlining the purpose or object of the experiment. This should be present as a single statement. It should be brief, precise and to the point. The whole introduction should be at least three paragraphs but not more than a page.

***Materials:*** This section is a listing of the objects that were used in the lab. Try to give specific numbers or special characteristics. Do not capitalize equipment names or chemical names.

i.e. **Materials:** 1 electronic balance

1 - 500 mL beaker containing unknown liquid

***Procedure:*** This section describes the procedure that was followed to make your observations. It should be numbered and follow a logical order.

If the procedure is outline in a textbook you can reference the text but be sure to outline any changes in the procedure if necessary.

i.e. Procedure: Refer to **name of textbook** pages **list pages** with the exception of item **number(s)** change to read **list changes**.

***Observations:*** This is probably the most important part of the lab report. All observations should be presented in a tabular, diagrammatic or graphical format. Long descriptive, written passages should be saved for the Discussion section.

***Sample Calculations:*** This section should contain **one example of each type** of calculations

 used in the experiment. It is important to indicate from where in your table of values the trial value is obtained. Each sample should have

 sufficient detail so that the logic of the calculation can be understood.

***Conclusion:*** Conclusions should be based on the data obtained in the experiment. It is more important to have conclusions based on your data, than conclusions which indicate what should have occurred. Personal pronouns *should not* be used.

i.e. The unknown liquid had a density of 1g/mL. Thus it can be concluded that the unknown liquid was water which has this density.

As well, answer the specific questions that are asked in the lab or in the textbook. Use full sentences so the reader knows what you are answering but do not number the questions.

Include a review of the sources of error involved in the experiment. Discuss how the error(s) affected the results. Be sure to mention what was done to minimize these errors and other ideas that could be used to decrease the error even further in future trials.

The whole conclusion should be at least three paragraphs but not more than a page.

***Format for Title Page:***

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| **Lab # 1: Identifying a Liquid by Its Density** **Prepared for**: Miss Takken  **Course:** SPH 3U1 **Prepared By:** **Lab Partner(s):** **Date:**  |