Standard Laboratory Report Template

Formatting the Report Elements

- To keep your report organized and easy to understand, there is a certain format to follow. This report writing format will make it easier for the reader to find what he is looking for.
- The main sections of a standard report are as follows.

Title

- Write a descriptive title. Anyone who reads your title should be able to tell what your experiment is about.

Name, date and name of partner

Introduction/Background Information

- Include your preliminary observations as well as any background information about the subject.

- Address the specific questions presented with each individual lab for guidance.

- Use your textbook as a source for this section.

Question/Problem

- What question are you trying to answer?

Hypothesis

- Write a statement that says what you are testing and what you expect the outcome to be.

- Include reasoning behind why you think this will be the result.

Variables

- What is the independent variable? This is the variable that you are manipulating.
- What is the dependent variable? This is the responding variable or what changes during the experiment. You are measuring this.
- What are your controlled variables? These are the variables that you will be keeping constant throughout the experiment.

Materials

- List all items used in the lab.
- All materials listed with quantities

Experimental Design/Procedure

- Write out in list form the steps you took to complete the experiment.

- Your procedure should be written with enough detail so that anyone else could repeat the experiment.

- Include any figures that may help your readers visualize what your experimental set-up may look like.

Results/Data

- This is your data section where you include data tables and graphs of your data when applicable.

- All tables and graphs should be titled and labeled appropriately and include units of measurement.

Results/Data

- Graphs should be properly scaled with the dependant variable on the y-axis and the independent variable on the x-axis.

- Graphs should take up a whole page of graph paper so they are easy to read.

- A caption should be included with any graphs that explain what the reader is seeing in the graph (this is not where you analyze the graph!)

Conclusions

- The minimum requirements for a conclusion include:

o Restate hypothesis and question and state whether hypothesis was supported by results or not.

o Infer or explain results by restating your data and giving logical explanations of these results. Draw conclusions based on the data obtained through your experiment.

Conclusions

- List three procedural errors in the experiment and how they could have affected the results. Describe what you would change if you did the experiment again.

- Describe any experiments that are related to this experiment that may be pursued in the future.

Basic Scientific Method Vocabulary List

- The scientific method is a process commonly learn to help encourage experimentation. Whether you use the classic scientific method or a newer variation, these are the words you'll need to know.

Basic Scientific Method Vocabulary List

- **analyze** - to look at the parts of a thing and find out what each part is made of or how it works
- **data** - a bunch of facts or things you know
- **dependent variable** - a thing you measure that changes when other things affect it
- **empirical evidence** - what you've learned using your senses

Basic Scientific Method Vocabulary List

- **evidence -** a thing or group of things that helps you find an answer
- **hypothesis -** what you think will happen based on what you know
- **independent variable -** a thing you measure that isn’t changed by other things
- **investigation -** a careful search for answers

Basic Scientific Method Vocabulary List

- **measure -** to find out the size of something
- **natural -** something made by nature, without being touched by people or machines
- **observation -** seeing something and making notes about it
- **prediction -** a guess about what you think will happen

Basic Scientific Method Vocabulary List

- **qualitative -** what you know about things without measuring them or using numbers
- **quantitative -** measurements, or numbers, you know about things
- **record -** to write down what you know or learned
- **scientific question -** something you ask that can be tested with science
- **variable -** thing you are trying to measure in an experiment