Sample Lab Report Template

After you complete your lab, you have to write the lab in a formal, scientific format. After you complete your lab, you have to write the lab in a formal, scientific format. In this example, there are nine sections: title, purpose, research, hypothesis, experiment, data/analysis, conclusion, safety, and references.

Below is a sample of how to structure your lab report, including some of the questions you should answer and information you should include in each section.

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**Title:**
A brief, concise, yet descriptive title

**Purpose/ Statement of problem/Question:**
What do you want to find out? What question(s) are you trying to answer?

**Research:**
Write a short paragraph summarizing the background information that you found. This can be an article from an encyclopedia or something you downloaded from the internet.

**Hypothesis:**
Make an educated guess based on the research.

- Write a possible solution for the problem
- Make sure this possible solution is a complete sentence
- Make sure the statement is testable

**Experiment:**
When you conduct your experiment, you need to do it enough times to collect data. Take into account that it might not work the first time or one of your testing materials might be defective. For example, if you are doing an experiment on plant growth, don’t plant one seed in a pot, plant two or three.

   a. Materials used: (Make a list.)
   b. Procedure: (Write the steps you followed.)
      - Write a paragraph (complete sentences) which explains what you did in the lab.
      - Your procedure should be written so that anyone else could repeat the experiment.
   c. Include what were the **constants** were (the things that did not change)
   d. Include the **variable** (the thing(s) that did change).

**Example:** You want to test how light affects plant growth. You would plant the same kind of seed (use two or three) and plant them in three different pots, with the same soil, the same amount of soil, the same amount of plant food, and the same amount of water at the same time each
day. These are your constants. Place one pot in a dark closet, one in the middle of the room, and one in the window. This is your variable.

Remember: If you have more than one variable you have to repeat the experiment again, changing only one variable at a time. If you want to test how different amount of light affects different types of plants, you are now testing two variables. You would have to plant three different types of seeds (2-3 seeds per pot in case one is defective) and put them in the three different locations described above. You are now testing two variables. Everything else remains constant or the same.

**Data/Analysis:**
A chart or table of your data.
- This section should include any data tables, observations, or additional notes you make during the lab.
- You may attach a separate sheet(s) if necessary.
- All tables, graphs and charts should be labeled appropriately

**Conclusion:**
A statement whether your hypothesis was right or wrong and why. Use data from your lab to support it.
- If it were wrong, why do you think it was wrong?
- What would you do differently the next time?
- List one thing you learned and describe how it applies to a real-life situation.
- Discuss possible errors that could have occurred in the collection of the data (experimental errors)

**Safety:**
Were there any safety concerns that one should before going into this lab?

**References:**
Cite where you got your background information and any information that helped you perform this experiment.