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|  | **Detailed Experiment Report Format** | |
| **Date:** | **Name:** |

**Title**

A whole page for a title is unnecessary and quite wasteful of paper. Put the title of your lab experiment at the top. Include your name, your group members’ names, teacher’s name, course and the date.

**Purpose**

Answer in a sentence or two, “what is the purpose of this experiment?”

**Question**

Write down a testable question, e.g. “How does string length affect the period of a pendulum?” or “What is the acceleration due to gravity in my school?”

The general format is “how does *independent variable* affect *dependent variable?*”

**Hypothesis**

Use the format “If…then…because”. E.g. “If the length of the string increases, then the period of the pendulum will increase because the object has to travel farther”.

**Experimental Design**

What are you going to do in the experiment? Explain briefly, in a few sentences, what is the generalized procedure. State the independent, dependent and controlled variables.

**Materials**

List any and all materials you will need for the experiment (NOT the materials you needed to build your launcher). Use the proper name and include the number if you need multiples.

**Scientific Drawing**

Include a one-page scientific drawing of your apparatus that includes your projectile launcher, measuring devices, etc.

**Safety**

Include any safety precautions. Most experiments have some sort of safety concern.

**Procedure**

Write out step by step instructions on how to perform the lab. Include exact measurements if needed. Remember, your goal here is to make this exact experiment reproducible. Be specific.

**Observations**

This is where you would record your observations. A data table would look nice here. Always include the units of your measurements on your data table.

**Data Analysis**

This is where you would perform any calculations with your observed data and analyze the results. You don’t need to show every calculation – but show a sample calculation for each type (e.g. one for finding the average time, another for using the formula to find acceleration). Hand written is okay here, but if you can try to use an equation editor to increase your professionalism. This is also where you would put your graphs. You will be including at least 25 data points and a line/curve of best fit with the R2 value included.

**Evaluation**

Identify your sources of reading, random and systematic errors.

**Discussion**

If your teacher asks you to answer any discussion questions, this is the place. Write out the questions then answer it below. Be very thorough, detailed and precise.

**Conclusion**

This is where you would look back at your purpose and question. Answer the original question using your results and make a short mention of any errors.