Title of the Lab

Your name first, your partners’ names

Boulder Creek High School

**Abstract**

An abstract is a summary of the entire lab that gives the reader a basic understanding of the lab experiment and its results without having to read the entire report. A complete, well written paragraph will suffice. Start by saying what was done in the lab. Then, state the results of the lab. Finally, interpret your results and state any conclusions you drew from those results. An abstract is sort of like an introduction and a conclusion rolled into one paragraph, and most people actually just put their abstract together with pieces of those sections of their papers. Remember to write everything in your report in third person (do not use “I” or “we”), past tense language. Do not change the basic layout of this template. Write your abstract last!

**Introduction**

This is where you give the reader a basic idea of what was done in the lab. Start by telling what the purpose of the lab was. It could have been to discover a relationship or to demonstrate/verify a concept we already learned in class. For example, if we verified the equation for the period of a pendulum, state that in the introduction.

Once you have explained what we did and why we did it, give a list of materials you used to perform the lab. Do not make a bulleted list. Write a paragraph that explains what you used in the lab and a basic explanation of what it was used for. Do not go into too much detail, but do mention the equipment used in the experiment and/or the analysis process along with what is was used for.

**Experimental Method**

This is a detailed paragraph that documents your experimental procedure. You need to be detailed enough so that an educated person with a basic understanding of laboratory science could recreate your experiment and get similar results. Again, focus on what you did to fulfill the lab objective. For example, if you used a pendulum to verify the period of a pendulum equation mention the apparatus, but focus on the process of recording and analyzing the data

**Experimental Data**

This is not a paragraph. Insert a data table in this section using the table function in MS word.

Something important to remember: only measured or given quantities go in this section. If a piece of information is calculated, it does not go here. For example, if you measure volume with a graduated cylinder, it can go in your data table. If you have to calculate volume by multiplying length times width times height, it does not go here, but the measured dimensions would.

Here’s an example:

|  |  |  |
| --- | --- | --- |
| Car number | Mass (kg) | Driving Velocity (m/s) |
| 1 | 1000 | 45 |
| 2 | 2000 | 37 |
| 3 | 3000 | 310 |

**Data Analysis**

This isn’t a paragraph, either. This is where equations and graphs go. If you calculate it, it goes here, and all of your work needs to be shown. You can go to the top menu and click “insert”, and then click “Equation” to make equations in MS word. Alternatively, you can leave space here for neatly done handwritten work. You can also scan or snap a NEAT picture of your handwritten work and insert it into this section as a picture.

**Conclusion**

This is a paragraph where you sum up what you did in the lab and state your results. Give a basic explanation of what you did. Then, state your results. After you state what you found, describe any conclusions that can logically be drawn from your results. For example, if you used a pendulum to verify the period of a pendulum equation mention the apparatus, briefly describe the apparatus, and analysis process (one or two sentences since you have already explained it), and then state any if you have enough evidence to support or reject what you set out to verify. If you were instead discovering a relationship that was previously unknown, state what that relationship is and how you came to that conclusion. State anything that could logically be concluded from these results. Once you have stated this, account for any sources of error in the experiment. Explain anything that we may not have taken into consideration, such as air drag, friction, etc. State that source of error, and then explain how it may have impacted your results.