**Mouse Trap Car lab Report Format**

**Below is a guideline for how to write your lab report**

**Remember to refer to: How to write a lab report and example of a well written lab report from my website: Kowenscience.com for additional guidance**

**Introduction:**

**You need to have a purpose statement**: such as (The purpose of this lab was to design a car powered by a mousetrap capable of traveling a distance of 10 meters in the shortest possible time.

**You also need to have background information that was pulled from or considered in order to design your project:**  You can use Work, force, Power and speed ( You do not need to include all of these but pick and use one as your background and how it will aid in your design.)

**You need to stay out of first person (no I or we)**

**The intro should be between a paragraph and ¾ a page long. If you pull info from a source, you need site your source. Make sure that your paragraph flows smoothly when read.**

**Methods:**

**You need to have a list of material used to build your device. No sentences, just listed**

**You need to have the procedure of how you built and tested your project written in step form. This section need to be written in first person**

**Ex 1. I dropped my device from a height of 10 feet.**

**Look at my example lab reports from my website to help in this section**

**A photo of your project will be an added plus. Label parts if necessary.**

**Results:**

**Include the Chart below:**

 **Group Time Distance Mass Velocity Work Power**

**Velocity = distance/time a=Vf-vi/t**

**Work = (mass x acceleration) x distance or work = force x distance**

**Power = work/time**

**Conclusion:**

**BE sure and spend time on this section, it is the most important part of a lab. This is where you draw conclusions and apply what you witness in the experiment and the known laws of science. This is where all great discoveries are made!!**

**Restate your purpose statement.**

**Discuss how the background you used in the introduction aided in this project**

**Remember to stay out of first person.**

**State whether your design was successful or not and any errors or improvements that could be made to the design**

**Show how the force, work, Power, and speed formulas played a role in this project**

**Include the weight of your car and use of friction for success**

**Questions to help guide your conclusion are listed below:**

1. **What are the two types of friction that affect the performance of your vehicle?**
2. **What problems related to friction did you encounter and how did you solve them?**
3. **What factors did you take into account to decide the number of wheels you chose in your design?**
4. **What kind of wheels did you use in each axle? What is the effect of using large or small wheels?**
5. **. Explain how Newton's first, second and third laws apply to the performance of your vehicle.**
6. **. Discuss the effect of the length of the lever arm in the pulling force of your vehicle.**
7. **How is the balance of a wheel, around its center, related to the vehicle’s performance?**
8. **How does the distribution of weight of the vehicle affect the traction of the wheels?**
9. **Discuss the major problems encountered in the performance of your vehicle and what did you do to solve them.**