



# Lab: Motion & Mass

## Pre-lab question:

1. What is Kinetic Energy?
2. What is the equation for Kinetic Energy?

**Problem:** How does **mass** affect **kinetic energy**? (You will answer this at the end of the lab)

**Research:** Use a chromebook to learn about mass & kinetic energy. Find at least two facts and cite your sources.

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Sources: 1.

2.

## Hypothesis:

This is a good format to use when writing a hypothesis, but it is not always appropriate. (If... then... because...)

**Independent Variable:** (Manipulated variable- "I Change" variable) \_\_\_\_\_

**Dependent Variable:** (Responding Variable- "Data") \_\_\_\_\_

**Control(s):** (Variables we want to keep constant) \_\_\_\_\_

**Materials:** List the materials you will use in your experiment. Be specific! The following materials will be available for you to use. You may use others at your teacher's discretion.

\*\*\*Hot Wheels cars with rivet on top, washers, Hot Wheels Tracks, Jenga blocks, timers, stop watches, ring stands, rulers, etc.

**Procedures:** List the steps you will take in your experiment. You do not have to use all of these steps. Be Specific!!!  
Get approval from your teacher before you start.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10

11.

12.

Data: Create a **table** to organize your **QUANTITATIVE** data. The independent variable goes in the first column. The dependent variable goes in the second column. Include the units of measurement.

**QUALITATIVE** descriptions: Describe what you observe in the experiment using your 5 senses (touch, sight, hearing, smell, taste).

Graph: Independent variable is written on the bottom. Dependent variable is written on the left side. Include the units of measurement (grams, seconds, centimeters, etc.)



Conclusion: Based on your data, you would write a conclusion in the same form as your hypothesis. If your hypothesis was correct, then your conclusion would be the same.

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