Impact of Air Resistance on Free Fall

Task: Determine the effect of air resistance on an object in free fall. More specifically, plot and find a relationship between the terminal velocity and mass of a falling object.

Planning: Write the procedure you will use to determine the relationship between the terminal velocity of a falling object and the mass of the object.

Data Table: Use the data table below to record your measurements. Be sure to include headers and units.

Graph: Plot the average terminal velocity vs mass. What trends can be observed?

Plot the average terminal velocity squared vs mass. What trends can be observed?

Result: Write a statement generalizing the results of your activity. Remember to refer back to the task.

Errors: There were a number of reasons for the range of data from trial to trial. Identify **Random** and **Systematic Errors**.

Random Errors:

Systematic Errors: