

Name _____
AP Physics
Period _____

Date _____
Lab #2
Mrs. Nadworny

Partners:

Due Date _____

Falling Coffee Filters

Lab Write-Up Required
use template from website

Purpose

To determine the drag coefficient of a coffee filter.

Research Question

(1)

What is the relationship between the mass of a falling object and its terminal velocity?

Variables

(5)

- Independent Variable –
- Dependent Variable –
- Control Variable(s) –

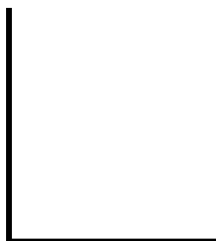
Derivation of Mathematical Model

(10)

Expected Graph

Straightened Graph *(if needed)*

(5)



Significance of Slope:

Expected y-intercept:

Hypothesis

(3)

Experimental Procedure

- **Materials**

- coffee filters
-
-
-
-

- **Labeled Diagram**

(2 & 3)

- **Method**

(5)

Data Collection

(15)

Make a clearly labeled table for organizing the raw and processed data that you expect you will collect.

Data Processing

(25)

On separate paper, include an analysis of the data collected above, including sample calculations of processing the data, graphs of your data, the experimental relationship, and calculations accompanying comparisons to the math model.

Conclusion

(10)

Write a conclusion using the general format provided on the *LAB HANDOUT* and website.

Evaluation

(5)

Discuss some relevant sources of uncertainty.

Improvement

(5)

For each source of uncertainty listed above, state a practical way to reduce it in a future investigation.

(4)
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