**AP PHYSICS - LAB REPORT FORMAT**

Each of the following sections of the laboratory report should be prefaced with the section names.

**Title ( 5 points)** - It should be descriptive and reflective of the lab.

**Purpose** (5 points) - This is a statement of the problem to be investigated.  It provides the overall direction for laboratory investigation and must be addressed in the conclusion.

**Materials List & Diagram** (10 points)

- 5 pts. A list of all laboratory equipment used in the investigation.

- 5 pts. A detailed and labeled diagram to illustrate the configuration of the apparatus. More than

 one picture may be necessary.

**Procedure** (15 points)

- Identify and name all experimental variables,

- Number the steps of your procedure, and be very explicit in these steps.

(Someone who was not present during the lab should be able to understand how the experiment was performed and be able to reproduce the results by reading your procedure.)

**Data** (25 points)

- Data is typically recorded in table format, and is measured directly from the experiment.

- Derived values obtained by way of mathematical manipulations (for example: average values, or unit conversions) or interpretations of any kind should be included in this section of the report as well.

- A sample calculation must appear describing the method of obtaining all derived values.

- The units for physical measurements in a data table should be specified in column heading only.

**Results and Data Analysis** (25 points)

- Include all graphs, analysis of graphs, post laboratory calculations and percent errors.

- All graphs should have a title, labeled coordinate axis and units.

 - You must put ONE graph per page, no more. Your graph should fill the page.

- Unusual results or trends should be noted and explained if possible.

- State the meaning of the slope and discuss the significance of the y-intercept when appropriate.

**Conclusion** (15 points)

- This section is for discussing how well your data agreed (or not) with what the theory would have

 predicted. In your conclusions, you should directly address statements that you made back in the

 “Purpose” section.

 Example:. If theory predicted a constant acceleration, then did you find a constant acceleration?

 If so, was it near the exact value that was predicted? If not, then why not?

- No calculations should be done here.

- Discuss any questionable data or surprising results.

- Explain the possible source of any error or questionable results.

- Suggest changes in experimental design which might test your explanations.