Design Your Own Physics Lab

Purpose: Create a step by step worksheet that investigates the relationship or function between two variables covered in AP Physics.

Instructions:

1. Form a group and select a topic of study we already covered in AP Physics.

2. Using objects found in the classroom, create a scenario that investigates the relationship or function between two variables. The two variables should be related by a physics equation covered in AP Physics.

3. Indicate the dependent, control, and independent variables. Explain how which variables will be measured and how each will be measured. Details of how you plan to make measurements are important. Developing a method for collection of data. Indicate the amount of data you expect to be collected (e.g. number of trials or manipulations). This includes the number of data points and a discussion on the range and limits of this data.

4. Indicate which variables should be graphed (you must have a graphing section).

5. Include a list of materials and equipment. A sketch is often helpful in explaining your ideas.

6. There should be at least one theoretical prediction and a measured outcome from which one can calculate a percent difference.

7. Organize your lab activity into a typed worksheet format with fill in the blanks and clear instructions. Neatness counts.