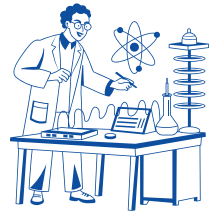


Lab Preparation Guiding Questions



The following questions are designed to help you prepare before conducting any physics experiment. Refer to your lab manual and video brief to complete this worksheet.

Part 1: Understanding the Experiment

1. What is the main objective of this experiment?
2. Which physical principle(s) or law(s) are being tested or demonstrated?
3. Summarize the theory relevant to this experiment in your own words.
4. What are the key equations involved? Define all variables.
5. What are the expected relationships between the measured quantities (e.g., linear, inverse, quadratic)?

Part 2: Equipment and Setup

1. What are the main components of the experimental setup as shown in the video or manual?
2. Briefly describe the function of each piece of equipment you will be using.
3. Identify any potential hazards or precautions associated with this experiment.

Part 3: Data and Analysis

1. What quantities will you measure, and what tools will you use for these measurements?
2. What graph(s) or tables are you expected to produce?
3. How will you use your data to calculate or determine the desired physical quantity?

Part 4: Error and Uncertainty

1. What are the sources of error in this experiment?
2. How will you estimate or calculate uncertainties in your measurements?
3. What steps can be taken to minimize errors or improve accuracy?

Part 5: Critical Thinking

1. Based on the video or manual, what challenges or difficulties might you face while performing this experiment?
2. What would you expect to observe if the experiment is performed correctly?
3. If the results are not as expected, what factors could be responsible?