

Physics Practical Report Checklist

General

- Include a header and footer with your name and the date.
- Start sections with clear headings.
- Use formal, impersonal language (except in Manipulation and Collaboration).

Hypothesis

- A statement of what you expect to happen, written as if it will be true.
- Include a specific mathematical relationship.

Manipulation and Collaboration

- Things which made it difficult to take accurate or precise measurements.
- Any initiative you showed (extra things you did that weren't in the procedure).
- Care (preventing damage to equipment) and safety (preventing injury).
- How you cooperated (worked with others and/or as a group).

Results: Table

- Variables in columns, with independent on left and dependent on right.
- Units in brackets, in column headings only.
- Consistent decimal places for measurements and significant figures for calculations.

Results: Graph

- Fill the whole page.
- Title (descriptive of this experiment).
- Axis labels (including units).
- Independent variable on horizontal (x) and dependent on vertical (y).
- Sensible major and minor axis scales (neat, consistent values).
- Extend line of best fit to touch an axis. It does not have to go through (0,0).

Calculations: Hypothesis

- Include derivation and/or research for the hypothesis.
- If the calculations are typed instead of hand-written, use properly formatted equations.
- Discussion of the variables and things to be held constant (see equation for ideas).

Discussion

- Discuss both precision and accuracy, including evidence for each.
- Clearly distinguish between precision and accuracy.
- Possible source(s) of random error.
- Possible source(s) of systematic error.
- Predict effects of each error source and compare with experimental results.
- Suggest improvements to the procedure.
- Be realistic and specific in your improvements.

Conclusion

- Restate the hypothesis and whether it is supported or not by the results.
- Describe evidence/pattern in the results.
- Include important points from Discussion.
- Someone could read the aim and then skip here and get a good idea of what happened.