

Question for discussion

**Students write answers
then add to board.**

**State the hypothesis that
this practical is designed to
test. This should include the
variables.**

**Give a prediction for your
practical that will help you
decide if the hypothesis is
correct.**

**Give a real-world situation
where knowing how these
variables are connected
would offer specific benefits.**

What is the independent variable in your practical?

What are the SI units?

What device is used to measure the independent variable?

What is the resolution?

What is the range of the independent variable?

What is the interval between values?

List the control variables in the practical.

For each one, give the chosen value.

**For each control variable,
describe how you kept
the value constant.**

**Did any of the results seem
to be anomalies?**

What did you do?

**What did you use to
measure the dependent
variable?**

Did it have to be calibrated?

**Comment on the precision of
the results. Quote data to
support your comment.**

Sketch a graph to show the pattern of your data.

Describe the relationship between the independent and dependent variables.

Looking at your results, are your measurements repeatable? Quote data to support your answer.

Is the pattern you describe reproducible? Quote results to support your answer.

Link a feature of the graph (eg intercept, gradient) to a physics context, such as one of the control variables.

Would increasing the range or reducing the interval of the independent variable make more difference to your data?

**What alternative method or equipment could you use ?
What difference would this make to the quality of data?**

Describe the risks involved in the practical and the steps you took to keep it safe.