Candidate guide

Your investigation will be in two stages: a research and a practical stage.You can carry out the research and practical stages in any order. Information/data gathered should be recorded.

Research stage

You should:

- select an application, with guidance from your assessor
- select an issue, with guidance from your assessor
- carry out research on your selected application and issue
- using your knowledge and understanding of physics make notes from your research of the application
- using your knowledge and understanding of physics make notes from your research on the effect of the issue on the environment/society

Practical stage

You should:

- plan your experiment.

Your **plan** must include:

- an aim, which is a clear statement of what you are trying to do in this experiment/practical investigation
- the dependent and independent variables
- the relevant variable(s) to be kept constant
- what you will be measuring/observing
- a list of equipment/materials you will use
- a labelled diagram of the experimental/practical investigation arrangement, if appropriate
- a description of how you will carry out your experiment/practical investigation, including safety, where appropriate

Checkpoint: Ask your assessor to check your plan before you start the practical work.

- You should carry out your experiment/practical investigation safely and **record your observations/measurements** in an appropriate way.

Checkpoint: Ask your assessor to check you have recorded your results.

- **Present** your findings/results in an appropriate way.

    — This may be a table, line graph, chart, key, diagram, flow chart or summary or other appropriate format.

— If used, graphs should be plotted on squared graph paper.
— use SI units and standard abbreviations, where appropriate.

- State your conclusion(s), which should include reference to the aim

- **Evaluate** your experimental procedures. Your evaluation should include at least one possible improvement for the experiment, with justification(s).

  With support from your assessor, you will use data from your research and practical stages to:

  — make predictions
  — select information
  — process information including calculations, as appropriate
  — analyse Information