

# Appendix 1: Instructions for candidates

This assessment applies to the *Physics Assignment* (National 4) Added Value Unit.

It assesses the following Outcome and Assessment Standards:

**1 Apply skills and knowledge to investigate a topical issue in physics and its impact on the environment/society by:**

- 1.1 Choosing, with justification, a relevant issue in physics
- 1.2 Researching the issue
- 1.3 Presenting appropriate information/data
- 1.4 Explaining the impact, in terms of the physics involved
- 1.5 Communicating the findings of the investigation

To pass this assignment, you will have to show that you have met the Outcome and Assessment Standards.

Your assessor will let you know how the assessment will be carried out and the required conditions for doing it.

# Physics Assignment

In your assignment, you will investigate a topical issue in physics that has an impact on the environment/society. This will involve carrying out research and then communicating your findings.

The assessment has two stages: Stage 1 is when you will do your research; Stage 2 is when you will communicate your findings.

## Stage 1: Research your topic

You could use a candidate's log, journal or other suitable way to record your research.

You need to choose a relevant topical issue in physics to investigate. This must relate to a key area of the National 4 Physics Course and must have an impact on the environment and/or society. Your assessor will help you to choose a suitable topic.

### Now, in your candidate's log or equivalent:

- ◆ state clearly the issue to be investigated
- ◆ state briefly in what way the issue is relevant to the environment/society

Once you have chosen your issue, you need to find out about it.

You can work in a group for this stage.

You can gather relevant information/data from the internet, books, newspapers, journals, experiment/practical activity or any other appropriate source.

Use at least two relevant sources of information/data.

If your assessor agrees, you could use an experiment/practical activity as one of the sources. In this case, your assessor will give you instructions for the experiment/practical activity and the experiment/practical activity will **not** be assessed.

### Now, in your candidate's log or equivalent:

- ◆ record at least two relevant sources of information/data in such a way that they could be found by someone else — if one of your sources is an experiment/practical activity, then include the title and the aim in your information/data
- ◆ gather enough appropriate information/data from at least two relevant sources to investigate the issue

## Stage 2: Communicate your findings

**You must now** communicate your findings.

Your communication must be clear, concise, relevant and appropriately structured.

You can communicate your findings in a number of different ways, such as:

- ◆ a report
- ◆ a presentation, with supplementary/supporting material such as PowerPoint slides with notes
- ◆ a conference/annotated information poster
- ◆ an information leaflet

If you choose to write a report, it is suggested that it should be 200–400 words, excluding tables and diagrams. Other methods should be of an equivalent size.

You should agree the communication method that you will use with your assessor.

### **In your communication of findings, you must:**

- ◆ Present information/data that is appropriate to your topical issue:
  - You need to present the information/data in a suitable format, using at least one from a diagram, flow chart, table, graph, chart, key, summary or other appropriate format.
  - You need to present some of the information/data in your own way. This could be done by comparing or summarising information/data or by presenting information/data in a different way from that found in a published source.
- ◆ Explain at least one impact of the issue on the environment/society, using what you have found out and your knowledge of physics. The impact(s) may be positive and/or negative.