



## 5.5

## Arranging a scientific report

In this activity, students identify the structure of scientific studies and compare these with a standard written scientific report (scientific studies are carried out routinely in the food industry and in materials testing).

**Outcomes**

Students will be able to:

- recognise the sections found within a scientific report
- answer questions that test the purpose of each section in a report
- compare a 'routine' scientific report or survey to other types of science article.

**Time required**

Allow 30-60 minutes.

**Outline of the activity**

Food industry surveys collect data from a sample of sources. This information is analysed and the conclusions are often used to form market research. The target audience is not only food industry professionals but also the consumer. It is anticipated that the surveys will support the consumer in making informed decisions.

Give the students jumbled copies of the 'baked beans and tinned pasta survey'. Don't forget to cut off the numbered headers and footers for this exercise! Printing each set on different coloured paper will be helpful. Ask the students to identify the various sections, and then arrange the papers in the correct order.

Students then answer specific questions about the text and discuss the need for a common format in scientific reports. They could also compare the differences between a scientific report that could be cited by others in the scientific community and scientific reports (or 'surveys') that are used for routine testing.

**Tips and strategies**

Food industry surveys are available at <http://www.food.gov.uk/science/dietarysurveys/minisurveys/>



In effect these 'surveys' are scientific reports and follow a standardised structure very similar to that of a recognised scientific report, that is:

- abstract or summary
- introduction or background
- methodology
- results
- discussion and conclusion
- references.

Students commonly find this exercise more difficult than expected, with many putting the summary at the end of the report.

Specific questions relating to the 'baked beans and tinned pasta survey' are available on the briefing sheet. However, if you are using a paper that you have found yourself, perhaps to fit in with a current topic that you are teaching, then the following 'template' may be useful:

- 1 Question asking about the meaning of a key term used in the paper.
- 2 Question asking students to explain an illustration in words.
- 3 In brief:
  - a What is the objective of the study?
  - b What is the study's principal conclusion?
- 4 Question about the methods used and why.
- 5 Question about the validity of the conclusion, given the methods and the results.