



## 5.4

## Recognising a scientific report

Scientific reports have a uniform structure standardised throughout the scientific community. In this activity, students recognise a scientific report from a number of science articles.

**Outcomes**

Students will be able to:

- recognise scientific reports amongst various articles
- appreciate the need for each of the sections in a true scientific report

**Time required**

Allow 45 minutes.

**Outline of the activity**

With teacher guidance, students discuss how scientific research can progress without each scientist needing to go over studies and findings which have already been established. As the class teacher, discuss ways in which scientists can communicate ideas and, in particular, the role of scientific reports. Elicit from the students these key features of a scientific report.

A scientific report will:

- have a title, abstract, clear study objective, literature cited, methods, results, and conclusions / discussion
- allow readers to follow the experimentation and possibly repeat the methods to verify the results
- be a basis which supports future scientific research.

Students are presented with a selection of scientific articles, at least one of which is a scientific report. They use a worksheet to locate where answers to questions can be found in each of the articles. Note that the *content* of the articles is not the subject of this activity but the *structure of the article*.

The students should find that it is not possible to locate the answers in every article because they are not true scientific reports.

Discuss the purpose of the various articles.

**Tips and strategies**

The best example of a report from the examples cited is 'Experimenting with woodwind instruments'. This is because it establishes that it is possible to use clarinets and flutes to demonstrate the basic principles of vibrating air columns in resonance tubes, using data collection software. The article 'The shell effect: music from environmental noise' is also a report, as it establishes that musical notes can be obtained from pipes; but here the research is not new. The other articles are not reports, since they do not show the results of scientific studies.

Make it clear to the students that they are only required to locate where the answers can be found, not that the actual answers.

One strategy is to share the articles around the class, with each student completing a worksheet for their article. The students could discuss their findings and discover who had the report.