

REPORTING SCIENCE

Much of our information about science comes from media reports. For example, links between life style and disease, and medical breakthroughs, are commonly reported in the newspapers, on television and on the radio. Sometimes this approach informs the public and may effect their lifestyle or beliefs. It may trivialise or sensationalise an issue, and, in the process, accuracy may suffer.

Scientists may use the media, both professional and popular, to publish or publicise their discoveries or theories. Reputations can be made or lost. This unit is a good opportunity to develop pupils' writing and speaking and listening skills in a different context. It offers an ideal opportunity for role-play.

The unit is in four parts:

Part A Bald facts

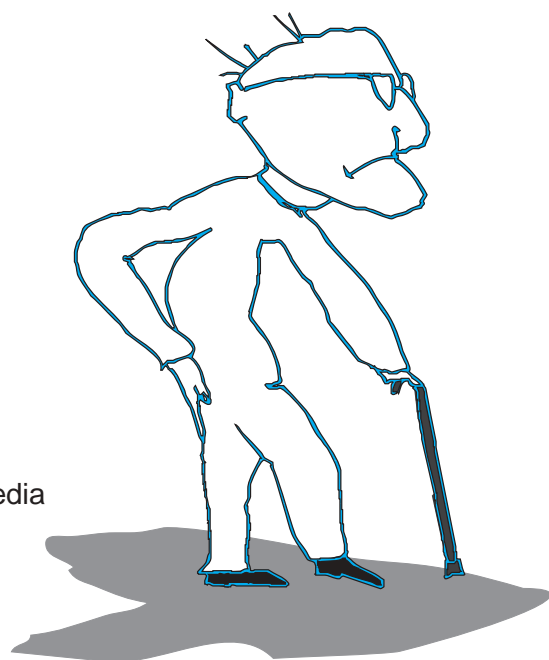
Part B A discovery

Part C Journalists at work

Part D Writing the story

By using this unit pupils will:

- plan and improve investigations
- learn to manipulate variables
- learn about controls and placebos
- role-play the reporting of science by the media
- write a popular science report
- simulate interviewing scientists.



Teaching focus

This unit gives the pupils a context for presenting ideas and reporting on their work to a range of audiences in an appropriate and ordered manner.

The activities enable the pupils to raise and answer their own questions, using increasingly systematic approaches. They encourage the pupils to identify and manipulate variables to test hypotheses, and to search for patterns in data.

In doing this the pupils should be encouraged to decide the number, range and accuracy of measurements and to interpret and evaluate collected data.

Managing the unit

This unit focuses on scientific enquiry and the development of pupils' literacy skills. Some of the activities could be done as homework.

Part A Bald facts

Pupils are asked to plan an experiment to test the hypothesis that '*eating peppermints makes you bald*'. They have a test sample of peppermints and non-mint sweets and a test period of twelve months. They discuss, plan and report their responses. Look for:

- recognition that baldness is generally gender-linked

- recognition that baldness is generally age-related
- the use of non-mint sweets as a placebo
- the use of a control group
- the limitation and control of the variables, e.g. *'only men over 60 who eat peppermints'*
- possibly a recognition that strong tastes appeal as more senses decline.

Part B A discovery

This is in two parts, B1 and B2. Since Part B2 contains one possible answer to Part B1 it is **essential** that Parts B1 and B2 are given out separately.

Part B1 describes the fictional observations of a scientist that eating spring onions appears to improve athletic performance. The pupils are asked to plan an investigation to test this theory.

Part B2 describes how the scientist tackled the task. Contrived results suggest that the theory was proven but:

- improvement overall was very slight in both groups
- two jumpers in the experimental group declined in performance
- one jumper in the experimental group made a significant improvement, weighting the figures.

- Answers**
- 1 10 cm (experimental group); 4 cm (control group).
 - 2 2 cm (experimental group); 0.5 cm (control group)
 - 3 The improvements are slight (1.5% and 0.5%). The jumpers could have trained harder, or just improved with practice. They might have got better because Margaret was taking an interest.
 - 4 The experiment could be improved by a larger sample, a 'control' vegetable, differing amounts of onion, controlled diets and training, etc.
 - 5 It was premature to announce the results on such slim evidence.

Part C Journalists at work

This is in two parts, C1 and C2. It is a role-play, simulating a press conference. Pupils' activity sheet C1 helps 'Margaret' and her colleagues prepare for the press conference. Any number of pupils could prepare a chart and press statement. Pupils' activity sheet C2 prepares the journalists to ask questions. This could be done in groups or as homework.

Prepare the room for a press conference. There will be a panel of scientists to read the prepared statements and show charts. The journalists will have questions to ask. Afterwards they write up their newspaper or television report.

Part D Writing the story

The 'journalists' have to write a 350 word article. It will need a headline.