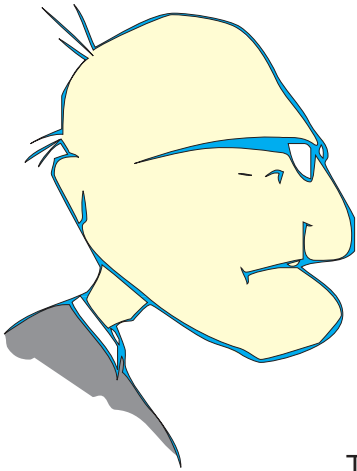


## Activity A BALD FACTS



You have observed that many old men are bald and that many old men like eating peppermints.

A newspaper links these two and has the headline:

### Eating peppermints makes you bald

A sweet company comes to you, as a scientist, because they are worried that this newspaper article will stop people buying their peppermints.

They offer you:

- a fee to find out the truth
- their workforce to experiment on – men and women, young and old
- as many peppermints as you need
- **SUCKAS** – sweets the same as their peppermints, but with no mint in them (*if you don't like the name 'Suckas', think of your own*)
- twelve months to find the answer.

Discuss this with your group.

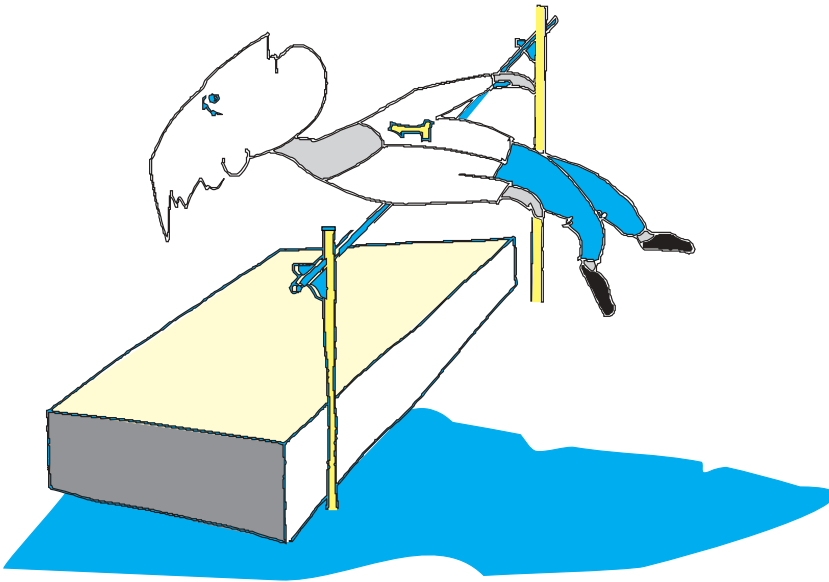
Plan and record an investigation to test the headline.



## Activity B1 A DISCOVERY

Read the story of the Great Spring-onion Discovery.

Margaret Jones, a university research scientist, is a member of an athletics club. She is a sprinter and long jumper. She trains at the club twice a week. One day she saw some of the high jumpers in the club sharing a bunch of spring onions. Jokingly she asked if the onions were good for helping high jumpers. To her surprise, they said that the onions did help them with their jumping. 'The more we eat, the higher we jump' said one of them.



Margaret decided to work with two other scientists, and together they set up an experiment to test this.

How would YOU test this idea?

You are testing the statement that eating spring onions makes high jumpers jump higher.

What will you do?

Record your experimental approach to finding an answer.

## Activity B2 A DISCOVERY

This is what Margaret did

- She managed to find 16 high jumpers, six women and ten men in her own club and in others, who were willing to help.
- She decided to study them for a year. This was all the time she could afford to spend and it was all the time the high jumpers could give her.
- She asked the jumpers to measure very carefully their high-jumping ability each week of the year. Every jumper had to do twelve jumps each week and she used the best jump of the twelve.

All through the year:

- eight jumpers were told never to eat any spring onions
- eight jumpers were each given 100 g of spring onions a day.

At the end of the year all sixteen were asked to measure their jumping ability in the same way as at the beginning of the year.

These were the results of her experiment.

Spring-onion eating group (experimental group)	Group not eating spring onions (control group)
One jumper had got worse by 1 cm One had got worse by 3 cm Three had improved by 3 cm One had improved by 4 cm One had improved by 5 cm One had improved by 10 cm	Two jumpers had got worse by 2 cm One had stayed exactly the same Two had improved by 1 cm Two had improved by 3 cm One had improved by 4 cm
The average improvement of the whole group was 3 cm	The average improvement of this group was 1 cm.

Use the table above to answer these questions:

- 1 Which are the biggest improvements in each group?
- 2 If you take out the biggest change in each group, what is the result then? (Notice how one figure can affect an average.)
- 3 A good club jumper can jump two metres. Are these improvements very important? What else could explain them?
- 4 In what ways could you improve Margaret's experiments?
- 5 Were the scientists right to announce the results? Why?

# Activity C1 JOURNALISTS AT WORK

Read the story of the Great Spring-onion Discovery.

Reporting the results

You are going to present the Spring-onion Experiment to the press at a press conference. Before the press conference you need to prepare your evidence.

■ **Make a big chart showing the results of the Spring-onion Experiment.**

Will this be on paper, an overhead transparency, on the computer or as a *PowerPoint* presentation?

You might want to present your chart as a graph, or two graphs – one for each group of jumpers.

■ **Write a press statement.**

This is a short summary of the experiment and the results. Pick out the main points and don't include unnecessary detail. This is for reporters to read.

They may want to ask you questions about it later.

## Activity C2 JOURNALISTS AT WORK

### Journalists' briefing sheet

You have been invited to a press conference to announce a new scientific discovery. Start by reading the press statement and looking at the chart.

At the press conference you will be asking the scientists questions.

There are three kinds of questions:

- 1 Clearing up points you do not understand.
- 2 Asking for further scientific information.
- 3 Asking for background information – for example personal details of the scientists.

What questions will you ask?

Here are some examples to help you.

- How was performance measured? Where? When? How accurately?
- Was the jumpers' whole diet controlled? Did they eat the onions raw, or cooked? Did they eat them on their own, or with other food?
- Where did the athletes train? Who coached them?
- Did enough jumpers take part in the tests to make it reliable?
- Can you believe these results?

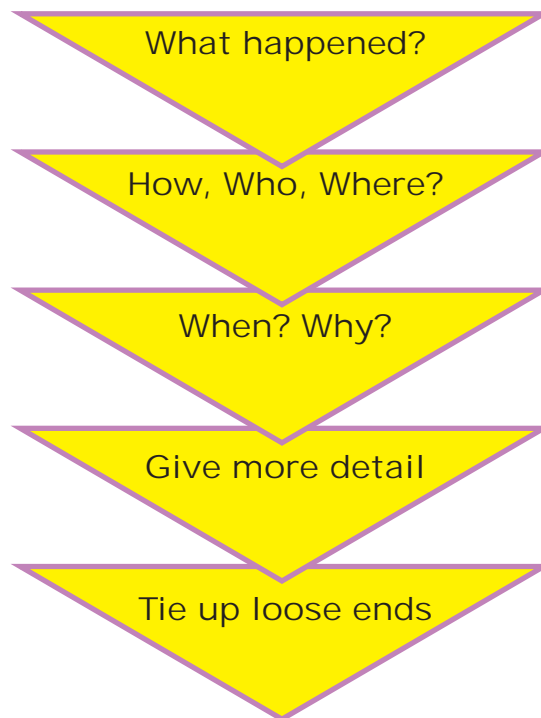
Now you are ready for the press conference.

## Activity D WRITING THE STORY

Write a news story about the Spring-onion Discovery.

Your limit is 350 words.

- The story must tell the results in a short and clear style.
- There will need to be some figures, but they must be kept brief and interesting.
- This arrow head might help you to structure your story. You don't have to follow it, however.



The most important thing is – **what happened?** The important facts must come first.

- Who did it, or who did it happen to?
- When did it happen?
- How did it happen?

If you have room you can say more about any of the points that you think your readers will find particularly interesting.

You need a tidy ending to round the story off.