



Working Scientifically-Being a Scientist

Key Vocabulary

| | |
|--------------------|---|
| Hypothesis | A question/statement you would like to investigate. |
| Prediction | What you think will happen in your experiment. |
| Equipment | The materials you will need to conduct the experiment. |
| Variable | The thing in your experiment that you change or test. |
| Method | The process in which you test your prediction. |
| Results | Information found through an experiment. |
| Conclusion | A summary of your experiment (the findings). |
| Observation | The action or process of carefully watching something and stating what happens. |
| Experiment | A trial or test made to find out about something. |



Dissolving

Which solids dissolve in water?

You Will Need

- Water (hot and cold)
- Transparent Containers
- Substances to try and dissolve; sand, sugar, salt, coffee etc

**Method**

- 1 Add a teaspoon of whichever solid you are testing to a glass of cold water and a glass of hot water, stir and observe the difference.
- 2 Look to see if the solid dissolves in the hot water and cold water and if one is better than the other.
- 3 Can you design a chart to record your observation?

Introduction

I am going to explain how to carry out a **fair test**. This is an **experiment** where two or more **variables** are compared. One **variable** is changed and the other is measured. Everything else is kept the same!

Example

For instance, how can I find out which brand of kitchen paper is the most absorbent?

Explanation

Firstly, I will cut a piece of each kitchen paper so that they are exactly the same size [a 20cm square]. **Next** I will measure out 25ml of water and make a puddle on the table. I will make a separate puddle for each type of kitchen paper. **After that** I will lay each piece of paper onto its puddle and leave it for 30 seconds. **Finally**, I will carefully pick up each piece of kitchen paper and compare how much water is left in each puddle.

Conclusion

The kitchen paper that leaves the least water is the most absorbent and **therefore** the best.

Tell your partner how to...

Tell your partner how to carry out a **fair test**.



Tell your partner how to...

Introduction

(explain what you will be talking about)

Example

(give an example to support your point)

Sequencing

Firstly,...

Then...

After that...

Conclusion

(sum up the key points)

Useful conjunctions

Firstly,...

Next,...

After that,...

Finally,...

In conclusion,...

Therefore,...

Consequently,...

Furthermore,...

So,...

Therefore,...