

Science — Working scientifically

Investigation

Scientists design and carry out investigations.

Biology

Scientists have an understanding of life and living processes.

Chemistry

Scientists have an understanding of materials and their properties.

Physics

Scientists have an understanding of physical processes.

What should I already know?

A fair test is a test that is carried out changing only one variable. It is used

Data collected during scientific tests can be presented in a graph and graphs can be used to analyse data.

What am I going to learn?

Science evidence can be used to support or refute ideas or arguments.

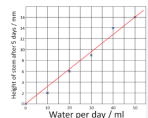
Results from experiments can be used to make predictions to set up further comparative and fair tests. During these experiments a range of equipment might be used. This could include a Newton Meter, stopwatch, measuring cylinder, funnel, filter paper, pipettes, thermometers and more. It is important to be accurate and precise when using equipment to receive reliable data.



Scientific questions can be answered by planning a scientific enquiry including by recognising and controlling variables.

Results from enquiries can be presented in a range of different ways this could include a presentation.

Data can be presented in different ways including scatter graphs.



Key Vocabulary

Definition

variables

A variable is anything that can change and be measured.

accuracy

How close a measurement is to the true or accepted value.

precision

Measures how close results are to one another.

classification

Grouping of organisms.

fair test

A test that controls all but one variable.

conclusion

A summary of results.

prediction

What you think will happen in an experiment.

refute

To prove a statement to be false or incorrect.

Key Scientist(s) - Anders Celsius

Anders Celsius was an astronomer and physicist who created the Celsius temperature scale .



Working Scientifically

To plan different types of scientific enquiries to answer questions and take measurements, using a range of scientific equipment.

To use test results to make predictions to set up further comparative and fair tests.

To report and present findings from enquiries.

To identify scientific evidence that has been used to support or refute ideas or arguments.