

National curriculum statutory requirements

Pupils should be taught to use the following practical scientific methods, processes and skills:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.



How can we **group** these rock samples?

What can we **observe** about them?

What can we **measure**?

Could we use any **equipment** to find out more about the samples?

Key vocabulary and expectations

Scientific language	Children can use relevant scientific vocabulary when talking about a topic and recording their ideas.
Questioning	Children can ask questions about a science topic and suggest ways to find out the answers.
Testing	Children learn how to set up a fair test so that everything is the same apart from the thing they are testing.
Observing and measuring	Children make careful observations for an agreed purpose. Children use a range of equipment to take accurate measurements using standard units , e.g. centimetres, minutes and Celsius.
Identifying and classifying	Children can talk about criteria for grouping , sorting and classifying and use simple keys .
Data handling	Collect, record and represent data in a variety of ways. Begin to look for patterns and relationships in their data.
Reporting	Children communicate their ideas and conclusions in a variety of ways. With support, they may suggest improvements to tests or new questions to investigate.



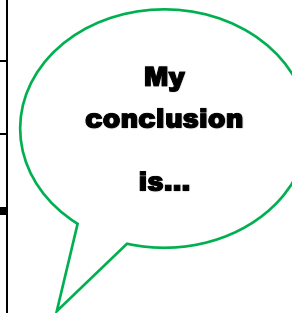
Why do bees visit flowers?

How could we find out which flowers are visited most frequently?

Could we set up a **fair test**?



How could we **test** what would happen if we didn't clean our teeth?



How could we represent this **data** in another way?