

Main Focus at each key stage -

Key Stage 1:

Experience and observe natural and human world

Encouraged to be curious and ask questions

Helped to develop scientific enquiry skills

Begin to use scientific language

Most learning should be first-hand practical experience with some secondary sources

Practical scientific skills -

- Ask questions
- Observe using equipment
- Perform simple tests
- Identify and classify
- Suggest answers
- Gather and record data

Lower key stage 2:

Broaden their scientific view of the world

Explore, talk, test and develop ideas

Ask own questions

Make some decisions about how to use scientific enquiry skills

Draw simple conclusions and use some scientific language (first to talk, then write)

Scientific methods and processes -

- Ask relevant questions to answer through enquiry
- Set up simple enquiries, comparative and fair tests
- Make systematic, careful observations and measurements
- Gather, record, classify and present data
- Use simple scientific language, drawings labelled diagrams, keys, charts and tables
- Report using oral and written explanations, displays and presentations

- Draw simple conclusions
- Predict new values, suggest improvements and raise further questions
- Identify differences, similarities and changes
- Use scientific evidence to answer questions

Upper Key Stage 2:

Develop deeper understanding of a wide range of scientific ideas

Explore and talk about ideas

Ask own questions

Analyse functions, relationships and interactions more systematically

Encounter more abstract ideas about how world operates

Recognise scientific ideas develop over time

Select most appropriate ways to answer questions using enquiry

Draw conclusions based on data

Use evidence to justify and knowledge to explain.

Scientific methods, processes and skills -

- Plan different types of enquiries to answer questions (recognising and controlling variables)
- Take measurements and readings with accuracy and precision
- Record data and results using diagrams, labels, keys, tables, scatter/bar/line graphs
- Use results to make predictions for further tests
- Report and present findings - conclusions, relationships, explanations - orally and in writing
- Identify scientific evidence used to support/refute ideas