

Working scientifically skills progression

EYFS

The characteristics of effective learning from the Statutory Framework for the Early Years Foundation Stage are the foundations on which the working scientifically skills build in Key Stage 1.

- Show curiostity and ask questions
- Make observations using their senses and simple equipment
- Make direct comparisons
- Record their observations by drawing, taking photographs, using sorting rings and, in Reception, on simple tick sheets
- Use their observations to help them to answer their questions
- Talk about what they have done and found out
- Identify, sort and group

| Key Stage 1 – Years 1&2 | Lower Key stage 2 – Years 3 & 4 | Upper Key Stage 2 – Years 5 & 6 |
|---|---|---|
| Asking simple questions and recognising that they | Asking relevant questions and using different types | Planning different types of scientific enquiries to |
| can be answered in different ways | of scientific enquiries to answer them | answer questions, including recognising and controlling variables where necessary |
| Observing closely, using simple equipment | Setting up simple practical enquiries, comparative | |
| Performing simple tests | and fair tests | Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, |
| | Making systematic and careful observations and, | taking repeat readings when appropriate |
| Identifying and classifying | where appropriate, taking accurate measurements | |
| | using standard units, using a range of equipment, | Recording data and results of increasing complexity |
| Using their observations and ideas to suggest | including thermometers and data loggers | using scientific diagrams and labels, classification |
| answers to questions | | keys, tables, scatter graphs, bar and line graphs |
| | Gathering, recording, classifying and presenting | |
| Gathering and recording data to help in answering | data in a variety of ways to help in answering | Using test results to make predictions to set up |
| questions. | questions | further comparative and fair tests |
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Recording findings using simple scientific language, Reporting and presenting findings from enquiries, drawings, labelled diagrams, keys, bar charts, and including conclusions, causal relationships and explanations of and degree of trust in results, in oral tables and written forms such as displays and other Reporting on findings from enquiries, including oral presentations and written explanations, displays or presentations of results and conclusions Identifying scientific evidence that has been used to support or refute ideas or arguments. 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.