Christ Church Upper Armley CE Primary School

Science Progression of Skills

Skills introduced in EYFS:

Gather data to answer questions

Use simple equipment

Perform simple tests

Group and classify objects based on their criteria

Observe closely

Ask questions to find out answers

Use observations and ideas to answer questions

Use drawings to represent observations and ideas and discuss their representations with others

Use simple features to compare objects, materials and living things

Record data in a graph

Use simple measuring equipment

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Questioning, predicting and planning	QPP1.1 Use everyday language/begin to use simple scientific words to ask or answer a scientific question. QPP1.2 Begin to say what might happen in an investigation. QPP1.3 Follow instructions to complete a simple test individually or in a group.	QPP 2.1 Suggest ideas, ask simple questions and know that they can be answered / investigated in different ways including simple secondary sources, such as books and video clips. QPP2.2 Begin to make predictions. QPP 2.3 Do things in the correct order when performing a simple test and begin to recognise when something is unfair.	QPP 3.1 Use ideas to pose questions, independently, about the world around them. QPP 3.2 Make predictions and begin to give a reason. QPP 3.3 Discuss enquiry methods and describe a fair test.	QPP 4.1 Suggest relevant questions and know that they could be answered in a variety of ways, including using secondary sources such as ICT. QPP 4.2 Answer questions using straight forward scientific evidence. QPP 4.3 Make predictions and give a reason using simple scientific vocabulary. QPP 4.4 Make decisions about different enquiries, including recognising when a fair test is necessary and begin to identify variables.	QPP 5.1 Raise different types of scientific questions, and hypotheses. QPP5.2 Make predictions and give a reason using scientific vocabulary. QPP 5.3 Plan a range of science enquiries, including comparative and fair tests.	QPP 6.1 Pose/select the most appropriate line of enquiry to investigate scientific questions. QPP 6.2 Make predictions and give a reason using scientific vocabulary. QPP 6.3 Base predictions on findings from previous investigations. QPP 6.4 Select and plan the most suitable line of enquiry, explaining which variables need to be controlled and why, in a variety of comparative and fair tests.
Observing and recording evidence	ORE1.1. Observe objects, materials and living things and describe what they see. ORE1.2 Use simple, nonstandard equipment and measurements in a practical task. ORE1.3 Begin to record simple data.	ORE2.1 Observe something closely and describe changes over time. ORE2.2 Use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.	ORE3.1 Make decisions about what to observe during an investigation. ORE3.2 Take accurate measurements using standard units. ORE3.3 Record their findings using scientific language and present in note form, writing frames, diagrams, tables and charts.	ORE4.1 Make systematic and careful observations. ORE4.2 Take accurate measurements using standard units and a range of equipment, including thermometers and data loggers. ORE4.3 Choose appropriate ways to record and present information, findings and conclusions for different audiences (e.g. displays, oral or written explanations).	ORE5.1 Plan and carry out comparative and fair tests, making systematic and careful observations. ORE5.2 Take measurements using a range of scientific equipment with increasing accuracy and precision. ORE5.3 Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar and line graphs and models.	ORE6.1 Make their own decisions about which observations to make, using test results and observations to make predictions or set up further comparative or fair tests. ORE6.2 Choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. ORE6.3 Decide how long to take measurements for, checking results with additional readings. ORE6.4 Choose the most effective approach to

						record and report results, linking to mathematical knowledge.
Identifying and Classifying	IC1.1 Sort and group objects, materials and living things, with help, according to simple observational features. IC1.2 Describe how to identify and group familiar objects	1C2.1 Decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns. IC2.2 Identify and classify groups of biological/ chemical/physical materials independently	IC3,1 Talk about criteria for grouping, sorting and categorising, beginning to see patterns and relationships.	IC4 Identify similarities/differences/changes when talking about scientific processes.	IC5 Use and develop keys to identify, classify and describe living things and materials.	IC6 Identify and explain patterns seen in the natural environment.
Analysing and evaluating	AE1.1 Explain, with help, what they think they have found out. AE1.2 Use every day or simple scientific language to ask and/or answer a question on given data.	AE2.1 Use simple scientific language to explain what they have found out. AE2.2 Identify simple patterns and/or relationships using simple comparative language.	AE3.1 Draw, with help, a simple conclusion based on evidence from an enquiry or observation. AE3.2 Gather, record and use data in a variety of ways to answer a simple question.	AE41. Use recorded data to make predictions, pose new questions and suggest improvements for further enquiries. AE4.2 Identify, with help, changes, patterns, similarities and differences in data to help form conclusions. AE4.3 Use scientific evidence to support their findings.	AE5.1 Use a simple mode of communication to justify their conclusions on a hypothesis. AE5.2 Begin to recognise how scientific ideas change over time. AE5.3 Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas.	AE6.1 Identify validity of conclusion and required improvement to methodology. AE6.2 Discuss how scientific ideas develop over time. AE6.3 Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.