Science skills progression

EYFS Understanding the World skills progression
Children in Reception work scientifically, engage in different enquiry types and follow investigation steps by engaging in the Early Years Foundation Stage, with additional details provided by Development Matters. Key to this are the characteristics of effective learning, which support the later development of scientific skills: • playing and exploring • active learning • creating and thinking critically. In playing and exploring, children are supported to find out and explore, play with what they know and are encouraged to 'have a go'. In active learning, children are encouraged to be involved and concentrate, keep trying and find enjoyment in achieving what they set out to do. In creative and critical thinking, children are motivated to have their own ideas, make links and choose ways to do things. In order to support these characteristics in the area of Understanding the World, children are given opportunities to develop the following skills: - Look closely at natural and found objects - Comment and ask questions about their observations - Talk about how and why things happen - Identify similarities, differences and changes

	Skills progression in science					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working scientifically	Sc1/1.1 asking simple questions and recognising that they can be answered in different ways Sc1/1.2 observing closely, using simple equipment Sc1/1.3 performing simple tests Sc1/1.4 identifying and classifying Sc1/1.5 using their observations and ideas to suggest answers to questions		Sc4/1.1 asking relevant questions and using different types of scientific enquiries to answer them Sc4/1.2 setting up simple practical enquiries, comparative and fair tests Sc4/1.3 making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of		Sc5/1.1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Sc5/1.2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision Sc5/1.3 recording data and results of increasing complexity using scientific	

	Sc1/1.6 gathering and recording data to help in answering questions	equipment, including thermometers and data loggers Sc4/1.4 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Sc4/1.5 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Sc4/1.6 reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Sc4/1.7 using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Sc4/1.8 identifying differences, similarities or changes related to simple scientific ideas and processes Sc4/1.9 using straightforward scientific evidence to answer questions or to support their findings.	diagrams and labels, classification keys, tables, and bar and line graphs Sc5/1.4 using test results to make predictions to set up further comparative and fair tests Sc5/1.5 reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations Sc5/1.6 identifying scientific evidence that has been used to support or refute ideas or arguments.

The five types of scientific enquiry

The National Curriculum's 'working scientifically' criteria corresponds with the following five areas of scientific enquiry. Each year, children will carry out a range of activities that will allow them to practice each of these skills. Furthermore, these skills will be integrated into the process of conducting a scientific experiment

- Observation over time.
- Pattern seeking.
- Identifying, classifying and grouping.
- Comparative and fair testing.
- Research using secondary sources.