Churchill Primary School Science Working Scientifically Skills Progression

Working Scientifically Skills Progression Grid:

KS1	LKS2	UKS2
• asking simple questions and recognising that they can be answered in different ways	• asking relevant questions and using different types of scientific enquiries to answer them	• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
• performing simple tests	• setting up simple practical enquiries, comparative and fair tests	• using test results to make predictions to set up further comparative and fair tests
• observing closely, using simple equipment	• making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
• using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions	• 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	• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
	• 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	• reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
• identifying and classifying	• identifying differences, similarities or changes related to simple scientific ideas and processes	• identifying scientific evidence that has been used to support or refute ideas or arguments

	• using straightforward scientific evidence to answer questions or to support their findings.	

Reception:

Communication and Language	• Learn new vocabulary. • Ask questions to find out more and to check what has been said to them. • Articulate their ideas and thoughts in well-formed sentences. • Describe events in some detail. • Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. • Use new vocabulary in different contexts.
Personal, Social and Emotional Development	• Know and talk about the different factors that support their overall health and wellbeing: - regular physical activity - healthy eating - toothbrushing - sensible amounts of 'screen time' - having a good sleep routine - being a safe pedestrian
Understanding the World	• Explore the natural world around them. • Describe what they see, hear and feel while they are outside. • Recognise some environments that are different to the one in which they live. • Understand the effect of changing seasons on the natural world around them.

Developing Experts

Developing Experts – Progression of Skills Document – Year 1

	Year 1 Seasonal Changes	Year 1 Animals, including humans 1 – All about me	Year 1 Everyday Materials 1 – Exploring Everyday Materials	Year 1 Everyday Materials 2 – Building Unit	Year 1 Plants	Year 1 Animals, including humans 2 – All about animals
Asking simple questions and recognise that they can be answered in different ways						
Observe closely, using simple equipment						
Perform simple tests						
Identify and classify						
Using their observations and ideas to suggest answers to questions						
Gather and record data to help in answering questions						

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Developing Experts

Developing Experts – Progression of Skills Document – Year 2

	Year 2 Uses of everyday materials	Year 2 Living things and their habitats	Year 2 Living things and their habitats – Habitats around the world	Year 2 Animals, including humans 1 – Health and survival	Year 2 Animals, including humans 2 – Life cycles	Year 2 Plants
Asking simple questions and recognise that they can be answered in different ways						
Observe closely, using simple equipment						
Perform simple tests						
Identify and classify						
Using their observations and ideas to suggest answers to questions						
Gather and record data to help in answering questions						

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	Year 3 Scientific Enquiry	Year 3 Animals, including humans	Year 3 Rocks	Year 3 Forces and magnets	Year 3 Plants	Year 3 Light
Ask relevant questions and using different types of scientific enquiries to answer them						
Set up simple practical enquiries, comparative and fair tests						
Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers						
Gather, record, classify and present data in a variety of ways to help in answering questions						
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables						
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions						
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions						
Identify differences, similarities or changes related to simple scientific ideas and processes						
Use straightforward scientific evidence to answer questions or to support their findings						

	Year 4 Animals, including humans	Year 4 Living things and their habitats	Year 4 Living things and their habitats - Conversation	Year 4 States of matter	Year 4 Sound	Year 4 Electricity
Ask relevant questions and using different types of scientific enquiries to answer them						
Set up simple practical enquiries, comparative and fair tests						
Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers						
Gather, record, classify and present data in a variety of ways to help in answering questions						
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables						
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions						
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions						
Identify differences, similarities or changes related to simple scientific ideas and processes						
Use straightforward scientific evidence to answer questions or to support their findings						

Developing Experts – Progression of Skills Document – Year 5

	Year 5 Forces	Year 5 Properties of materials	Year 5 Changes of materials	Year 5 Animals, including humans	Year 5 Earth and space	Year 5 Living things and their habitats
Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary						
Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate						
Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs						
Use test results to make predictions to set up further comparative and fair tests						
Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations						
Identify scientific evidence that has been used to support or refute ideas or arguments						

Developing Experts

Developing Experts – Progression of Skills Document – Year 6

	Year 6 Electricity	**Year 6 Light**	**Year 6 Animals, including humans**	**Year 6 Living things and their habitats**	**Year 6 Evolution and inheritance**	**Year 6 Looking after the environment**
Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary						
Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate						
Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs						
Use test results to make predictions to set up further comparative and fair tests						
Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations						
Identify scientific evidence that has been used to support or refute ideas or arguments						