



<u>Curriculum – Skills Progression</u>

Curriculum area: Science

Strand Skills by the end of Y5	Skills	Skills
	by the end of Y6	
Living things and their habitats	Can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Can describe the life process of reproduction in some plants and animals.	Can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Can give reasons for classifying plants and animals based on specific characteristics.
Animals including humans	Can describe the changes as humans develop to old age.	Can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Can describe the ways in which nutrients and water are transported within animals, including humans.
Earth and space	Can describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Can describe the movement of the Moon relative to the Earth.	N/A





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	Can describe the Sun, Earth and Moon as approximately spherical bodies. Can use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	
Evolution and inheritance	N/A	Can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. Can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
Properties and changes to materials	Can compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. Can name some materials that will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	N/A





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	Can demonstrate that dissolving, mixing and changes of state are reversible changes. Can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	
Light	N/A	Can use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. Can explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. Can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
Forces	Can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Can identify the effects of air resistance, water resistance and friction, that act between moving surfaces. Can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	N/A
Electricity	N/A	Can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.





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		Can compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Can use recognised symbols when representing a simple circuit in a diagram.
Scientific enquiry	Pupils will be taught to use the following practical scientific methods, processes and skills:	Pupils will be taught to use the following practical scientific methods, processes and skills:
	,	WS1 planning different types of scientific enquiries to answer
	WS1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where	questions, including recognising and controlling variables where necessary
	necessary	WS2 taking measurements, using a range of scientific equipment,
	WS2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings	with increasing accuracy and precision, taking repeat readings when appropriate
	when appropriate	WS3 recording data and results of increasing complexity using
	WS3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter	scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
	graphs, bar and line graphs WS4 using test results to make predictions to set up further	WS4 using test results to make predictions to set up further comparative and fair tests
	comparative and fair tests WS5 reporting and presenting findings from enquiries, including	WS5 reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree
	conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and	of trust in results, in oral and written forms such as displays and other presentations
	other presentations	WS6 identifying scientific evidence that has been used to support
	WS6 identifying scientific evidence that has been used to support	or refute ideas or arguments.
	or refute ideas or arguments.	WS7 explore and talk about their ideas; asking their own
	WS7 explore and talk about their ideas; asking their own	questions about scientific phenomena; and analysing functions,
	questions about scientific phenomena; and analysing functions,	relationships and interactions more systematically.
	relationships and interactions more systematically.	WS8 recognise that scientific ideas change and develop over
	WS8 recognise that scientific ideas change and develop over time.	time. WS9 draw conclusions based on their data and observations, use
	tune.	1 10 1 and w conclusions bused on their data and observations, use





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WS9 draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.	evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.