

Skills Progression for Science

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working Scientifically						
Planning	<p>Can I ask simple questions? Can I ask and answer questions about plants growing in their environment?</p> <p>Can I ask questions about animals in their habitats?</p> <p>Can I ask questions about everyday materials?</p>	<p>Can I ask questions and recognise that they can be answered in different ways? E.g. through research, enquiries or tests.</p> <p>Can I sort and classify living things?</p> <p>Can I ask questions about things all living things do?</p> <p>Can I raise an answer questions about the local environment?</p> <p>Can I ask questions about animals' growth?</p> <p>Can I ask questions about what animals need to survive?</p> <p>Can I ask questions about what humans need to keep healthy?</p>	<p>Can I ask relevant questions?</p> <p>Can I ask questions about the role of the different part of a plant?</p>	<p>Can I ask relevant questions and use different types of scientific enquires to answer them?</p> <p>Can I raise and answer questions based on observation of animals?</p> <p>Can I research the temperature the temperature at which materials change state?</p>	<p>Can I plan different types of scientific enquiries?</p> <p>Can I raise questions about my local environment throughout the year?</p> <p>Can I research the work of naturalists and behaviourists?</p> <p>Can I research how chemists create new materials?</p> <p>Can I find out about the way that ideas about the solar system have changed?</p>	<p>Can I plan different types of scientific enquires to answer questions recognising and controlling variables where new necessary?</p> <p>Can I find out about the significance of the work of Scientist such as Carl Linnaeus in animal classification?</p> <p>Can I research unfamiliar animals and plants from a broad range of habitats?</p> <p>Can I explore and answer questions about the circulatory system?</p> <p>Can I explore how to keep my body healthy?</p> <p>Can I explore the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health?</p> <p>Can I explore the work of people such as Mary Anning, Charles Darwin and Alfred Wallace in relation to evolution and inheritance?</p>
Obtaining evidence	<p>Can I observe and tell you what I have noticed?</p>	<p>Can I observe closely and use equipment to do so? E.g. hand lenses, egg timers.</p>	<p>Can I set up simple practical enquires?</p>	<p>Can I set up simple practical enquires, comparative and fair tests?</p>	<p>Can I take measurements; use a range of scientific equipment, with increasing accuracy?</p>	<p>Can I take measurements; use a range of scientific equipment, with increasing accuracy and repeat readings when appropriate?</p>
Observation	<p>Can I observe the growth of flowers and vegetables I have planted over time?</p> <p>Can I observe plants closely using magnifying glasses?</p> <p>Can I observe animals first hand or through videos or photographs?</p> <p>Can I observe changes in weather and the seasons?</p>	<p>Can I observe the growth of plants over time with accuracy?</p> <p>Can I observe how plants grow?</p> <p>Can I observe through first hand observation, measurement or video, how animals grow?</p> <p>Can I observe the uses of different materials?</p>	<p>Can I observe the different stages of plant life cycles over a period of time?</p> <p>Can I observe how water is transported in plants?</p> <p>Can I research different food groups and they keep up healthy?</p> <p>Can I observe rocks?</p> <p>Can I explore how rocks have changed over time?</p>	<p>Can I use the local environment throughout the year to study plants and animals in their habitats?</p> <p>Can I identify how habitats change throughout the year?</p> <p>Can I observe water as a solid, liquid and gas?</p> <p>Can I observe changes to water when it is heated or cooled?</p> <p>Can I observe evaporation over a period of time?</p>	<p>Can I observe life-cycle changes in a variety of living things?</p> <p>Can I observe and compare life cycles of plants and animals in their own environments?</p> <p>Can I observe and compare life cycles of plants and animals around the world?</p> <p>Can I observe changes in animals over a period of time?</p>	<p>Can I classify animals into vertebrates and invertebrates through direct observation?</p> <p>Can I observe and question how animas are adapted to their environment?</p>

			<p>Can I research and discuss fossils?</p> <p>Can I look for patterns in what happens to shadows when the light source moves or the distance between the source and the object changes?</p> <p>Can I observe that magnetic forces can act without direct contact?</p>	<p>Can I explore and observe the way sounds is made through vibration?</p> <p>Can I find out how pitch and volume can be changed in a variety of ways?</p> <p>Can I observe patterns related to electricity?</p>	<p>Can I compare the time of day at different places on the Earth?</p>	
Practical	<p>Can I carry out practical tasks?</p> <p>Can I explore and experiment with a wide range of materials?</p> <p>Can I perform simple test to explore questions such as: What material is best for ...?</p>	<p>Can I perform simple tests?</p> <p>Can I set up a test to show what plants need to grow?</p> <p>Can I compare uses of everyday materials?</p>	<p>Can I identify and group animals with and without skeletons?</p> <p>Can I use a hand lens or microscope to identify and classify rocks?</p> <p>Can I explore similarities and differences in soils?</p> <p>Can I investigate what happens when rocks are rubbed together?</p> <p>Can I explore what happens when light reflects off a mirror or reflective surfaces?</p> <p>Can I explore the behaviour and everyday uses of different magnets?</p> <p>Can I carry out tests to find out how far things move on different surfaces?</p>	<p>Can I find out what damages teeth?</p> <p>Can I discuss ideas about the digestive system by comparing them with models and images?</p> <p>Can I explore a variety of everyday materials?</p> <p>Can I explore the effect of temperature on different materials?</p> <p>Can I find patterns in the sounds that are made by different objects?</p> <p>Can I investigate which materials make the best insulation against sound?</p> <p>Can I construct simple series circuits?</p> <p>Can I understand precautions for working safely with electricity?</p>	<p>Can I try growing plants from different parts of a plant e.g. seed, stem and root cutting, bulbs etc?</p> <p>Can I research the gestation periods of other animals and compare them to humans?</p> <p>Can I explore and compare the properties of a broad range of materials?</p> <p>Can I explore reversible changes in materials, including those that are difficult to reverse?</p> <p>Can I carry out tests to answer questions about comparing materials?</p> <p>Can I explore falling objects and raise questions about the effects of air resistance?</p> <p>Can I make a variety of parachutes to determine the most effective design?</p>	<p>Can I use classification systems and keys to identify some plants and animals?</p> <p>Can I investigate the relationship between light sources, objects and shadows?</p> <p>Can I use the idea that light appears to travel in straight lines to explain how things like periscopes and rear view mirrors work?</p> <p>Can I extend my experience of light by exploring rainbows, colours on soap bubbles, colour filters or looking at objects in water?</p> <p>Can I construct simple electrical circuits?</p> <p>Can I change one component at a time in a circuit to explore the effect?</p> <p>Can I design and make a useful circuit such as: a set of traffic lights or a burglar alarm?</p>
Measurement	<p>Can I use non standards measurements? E.g. hand spans, cupfuls etc.</p>	<p>Can I begin to use some standard units of measurements? cm for height</p>	<p>Can I begin to make systematic and careful observations and take accurate measurements?</p> <p>Can I look for and measure shadows?</p>	<p>Can I make systematic and careful observations and take accurate measurements?</p> <p>Can I record evaporation over a period of time?</p>	<p>Can I record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs?</p> <p>Can I found and record the length and mass of a baby as it grows?</p> <p>Can I observe that some conductors will produce a brighter bulb?</p>	<p>Can I record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs?</p>
			<p>Can I gather, record, classify and present data in a variety of ways?</p>	<p>Can I gather, record, classify and present data in a variety of ways to help in answering questions?</p> <p>Can I group and classify different materials?</p>	<p>Can I use tests results to make predictions to suggest further comparative and fair tests?</p>	<p>Can I use tests results to make predictions to set up further comparative and fair tests?</p>
Presenting evidence	<p>Can I make a record of what I have seen?</p>	<p>Can I use my observations and ideas to answers questions?</p>	<p>Can I gather and record data to find answers to questions about magnets?</p>	<p>Can I record findings from enquires, including oral and written explanations, displays or</p>	<p>Can I report and present findings from enquires, in oral and written forms such as displays and other</p>	<p>Can I report and present findings from enquires, including conclusions, casual relationships</p>

	<p>Can I draw diagrams showing parts of plants including trees?</p> <p>Can I make tables and charts about the weather?</p> <p>Can I make displays of what happens in the world around them?</p>	<p>Can I record findings using charts?</p> <p>Can I construct simple food chains that include humans?</p> <p>Can I record the growth of plants over time with accuracy?</p> <p>Can I record my findings about uses of materials?</p> <p>Can I gather and record data to help in answering questions?</p>		<p>presentations or results and conclusions?</p> <p>Can I make simple guide or keys to explore and identify local plants and animals?</p> <p>Can I draw circuits as pictorial representations?</p>	<p>presentations?</p> <p>Can I draw a timeline to indicate stages of growth and development in humans?</p> <p>Can I create models of the solar system?</p> <p>Can I construct a shadow clock?</p>	<p>and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations?</p> <p>Can I represent simple circuits in a diagram using recognised symbols?</p>
Considering and evaluating evidence	<p>Can I say what similarities and differences I have noticed to help me answer questions?</p> <p>Can I sort and group?</p> <p>Can I describe how I identify and group animals?</p>	<p>Can I describe how I sorted living things?</p> <p>Can I identify and classify?</p>	<p>Can I use results to draw simple conclusions?</p> <p>Can I observe and compare animal movements?</p> <p>Can I compare and contrast the diets of different animals?</p> <p>Can I compare the effect of different factors on plant growth?</p> <p>Can I how properties of magnets make them useful in everyday life?</p>	<p>Can I use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions?</p> <p>Can I group animals in to vertebrates and invertebrates?</p> <p>Can I group plants into flowering and non-flowering?</p> <p>Can I explore examples of human impact on environments (both positive and negative)?</p> <p>Can I compare the teeth of herbivores and carnivores?</p>	<p>Can I identify scientific evidence that has been used to support or refute ideas or arguments?</p>	<p>Can I identify scientific evidence that has been used to support or refute ideas or arguments?</p>
	<p>Can I say what has changed to help me answer questions?</p>	<p>Can I talk about what I have found out?</p>	<p>Can I use scientific evidence to answer questions?</p>	<p>Can I use straightforward scientific evidence to answer questions to support their findings?</p>		