




The Grove Primary School Science Progression 2022-2023



	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Animals Including Humans</p>	<p>To be able to use all their senses in hands-on exploration of natural materials.</p>	<p>To be able to name and describe people who are familiar to them.</p>	<p>To be able to identify different parts of the human body and face To be able to identify different senses To be able to investigate a human trait e.g. leg length To be able to pose their own question to answer relating to a human trait e.g. do legs get longer as you get older? To be able to investigate using our senses e.g. sounds and sorting sounds To be able to pose our own investigation on senses e.g. taste and sorting tastes To be able to explore what a habitat is</p>	<p>To be able to order the life stages of a human To be able to match young to the adult of their species To be able to examine the life stages of another animal or insect To be able to sort what a particular animal and a human needs to survive and what they don't To be able to investigate the effect of exercise on the heart To be able to pose their own investigation question for exercise effects on different ages e.g. how many star jumps you can do in a minute as you get older</p>	<p>To be able to identify main food groups To be able to sort food into food groups To be able to match food to function in humans and different animals To be able to draw the main bones on an outline of a human body and their functions To be able to identify the names of bones in a human and match these to the main bones in an animal To be able to sort animals with and without skeletons</p>	<p>To be able to examine and name different teeth in humans and compare to other animals To be able to draw and label the parts of a digestive system on the outline of a human To be able to order the digestive system and the function To be able to investigate the function of the intestine e.g. tights experiment To be able to order food chains To be able to sort producers, predators and prey.</p>	<p>To be able to order the life stages of a human To be able to research foetal development and record length of a foetus on a graph To be able to sort milestones of a baby and a child To be able to match animals with gestational periods To be able to order life expectancy or different animals</p>	<p>To be able to draw and label the circulatory system on an outline of a human body To be able to match the function to the part of the heart and order the journey of blood To be able to identify the components of blood To be able to describe the transportation of nutrients and water around the body. To be able to pose own question to investigate heart rate e.g. the effects of exercise on heart rate To be able to match the lifestyle choice</p>



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			<p>To be able to sort animals to their habitats</p> <p>To be able to investigate where animals live in a habitat</p> <p>To be able to identify the species of an animal e.g. bird, amphibian</p> <p>To be able to sort animals based on their species</p> <p>To be able to identify what an animal would eat</p>	<p>To be able to match animals with what they eat</p> <p>To be able to look at a food chain for humans</p> <p>To be able to sort animals into simple food chains</p> <p>To be able to understand that plants get their energy from the sun</p> <p>To be able to investigate how a habitat is different in different weather (comparing results to autumn)</p> <p>To be able to sort living things found in the local area and identify them.</p>				with the effects on the body
Plants	<p>To be able to plant seeds and care for growing plants.</p> <p>To be able to understand the key features of the life cycle of a plant and an animal.</p> <p>To be able to begin to</p>	<p>To be able to explore the natural world around them.</p> <p>To be able to recognise some environments that are different to the one in</p>	<p>To be able to look for plants and trees in the local area</p> <p>To be able to identify the features of common plants and trees</p> <p>To be able to sort trees and plants</p>	<p>To be able to examine different seeds that disperse in different ways</p> <p>To be able to match seeds to their dispersal method</p> <p>To be able to examine plants in</p>	<p>To be able to match plants needs with reason</p> <p>To be able to dissect a flower and look at different parts</p> <p>To be able to label different parts of a flower</p>			



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	<p>understand the need to respect and care for the natural environment and all living things.</p>	<p>which they live.</p>	<p>according to their own criteria To be able to identify the trees and plants found in a different habitat To be able to identify the main parts of a plant To be able to identify the main parts of a tree To be able to discuss what a plant needs to survive To be able to match plants needs and what they use it for To be able to grow their own seeds using what they know about plants</p>	<p>their local environment To be able to identify what a plant needs to survive and why To be able to set own question for investigation e.g. how long will cress grow week by week?</p>	<p>To be able to label a flower and describe the parts To be able to examine pollination and seed production To be able sort seed dispersal with different fruits To be able to investigate the effect that water has on seeds To be able to pose their own question for growing cress e.g. placing cress in different environments To be able to order water transportation in a plant To be able to investigate water transportation in a flower To be able to pose own question to investigate what happens to water transportation in different conditions e.g. warmth</p>			
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Living Things and their Habitats				<p>To be able to examine things that are alive, dead and never been alive</p> <p>To be able to sort things that are alive, dead or never been alive</p> <p>To be able to match features of things that are alive, dead or never been alive</p> <p>To be able to investigate microhabitats</p> <p>To be able to pose own question to research relating to habitats e.g. how many worms will we find under a stone at the ponds?</p> <p>To be able to examine features of an animal that it needs to survive in a particular habitat</p>		<p>To be able to match characteristic to description</p> <p>To be able to investigate living things in the local area</p> <p>To be able to sort living things into vertebrate and invertebrate groups</p> <p>To be able to sort living things found in the local area into own groups</p> <p>To be able to use a classification key to identify living things</p> <p>To be able to create own sorting key to sort one group of living things e.g. insects or plants</p> <p>To be able to investigate living things in the local area</p> <p>To be able to create classification keys for living things in local area</p> <p>To be able to investigate</p>	<p>To be able to observe plants and animals in the local environment</p> <p>To be able to identify the main parts of a flower including male and female parts</p> <p>To be able to distinguish between sexual and asexual reproduction</p> <p>To be able to investigate asexual reproduction in plants e.g. grafting plant parts</p> <p>To be able to sort plants that produce sexually and asexually</p> <p>To be able to order the stages of reproduction in different mammals and understand how some mammals grow outside of the female's body</p> <p>To be able to observe and group animals and plants</p>	<p>To be able to sort animals, plants and microorganisms within groups and find odd ones out</p> <p>To be able to order the Linnaeus classification system</p> <p>To be able to classify living things using Linnaeus classification</p> <p>To be able to classify animals and plants from the local environment</p> <p>To be able to investigate a habitat and animals that live there and their classification</p> <p>To be able to find the classification system for unfamiliar animals and plants</p>
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						<p>climate change e.g. glass jar experiment To be able to research habitats affected by climate change To be able to sort positive and negative effects of human impact on environments</p>	<p>in the local environment To be able to order the lifecycle of a mammals, birds, insects and amphibians To be able to compare the lifecycles of birds, amphibians, insects and mammals. To be able to explore the lifecycle of a flowering plant To be able to research a naturalist scientist e.g. David Attenborough or Jane Goodall</p>	
Evolution and Inheritance								<p>To be able to sort inherited and environmental traits To be able to describe adaptations of animals and plants to their environment To be able to investigate animals in the</p>



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								<p>local environment and how they are adapted for survival e.g. hedgehog</p> <p>To be able to sort animals to their environment and describe their adaptations</p> <p>To be able to investigate cross breeding of a common animal e.g. what mixed breed would dogs produce?</p> <p>To be able to sort fossils into plant and animals</p> <p>To be able to examine a species and how it has adapted over time</p> <p>To be able to sort the advantages and disadvantages of a particular adaptation e.g. walking on 2 feet instead of 4</p> <p>To be able to sort chaffinches into the best beak to purpose</p> <p>To be able to research an evolutionary</p>
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								scientist e.g. Charles Darwin or Mary Anning
Seasonal Change	To be able to understand the key features of the life cycle of a plant and an animal.	To be able to explore the natural world around them. To be able to describe what they see, hear and feel whilst outside. To be able to understand the effect of changing seasons on the natural world around them.	To be able to identify different types of weather To be able to link weather to a season To be able to investigate a feature of a season e.g. rainfall per month To be able to pose own questions to investigate e.g. how many days it will snow this year To be able to discuss how we know length of day and night changes To be able to investigate how to sun moves e.g. shadows					
Forces	To be able to explore how things work. To be able to explore and talk about different forces they can feel.	To be able to explore the natural world around them. To be able to describe what they see, hear			To be able to experiment with magnets and how they work To be able to sort materials into magnetic and non-magnetic		To be able to sort forces To be able to explore different objects falling through the air To be able to investigate air	



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	To be able to talk about the differences between materials and changes they notice.	and feel whilst outside.			To be able to investigate whether a magnet with repel or attract another magnet To be able to investigate magnetism over a distance To be able to pose own question to investigate e.g. does the surface make a difference to how far away a magnet will attract an object To be able to investigate different sized magnets and their magnetism e.g. how many paper clips they will pick up		resistance e.g. making own parachutes To be able to investigate water resistance e.g. different shapes falling through water To be able to sort levers, pulleys and gears. To be able to pose own question for leavers, pulleys or gears e.g. which material makes the best brake pad	
Light	To be able to explore how things work. To be able to talk about the differences in materials and changes they notice.	To be able to describe what they see, hear and feel whilst outside.			To be able to experiment with light from different sources and how shadows are made To be able to investigate how mirrors bend light around a corner To be able to pose own question to			To be able to experiment with light sources and angles of incidence and reflection e.g. mirrors and light boxes To be able to order how light is seen by the eye



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					investigate e.g. how can we use mirrors to bend light around an object To be able to investigate how much light passes through objects To be able to investigate shadow length using light at different angles To be able to investigate shadows posing own question e.g. how does shadow length change during the day			To be able to investigate how to split light into the rainbow of colours e.g. prism activity To pose their own question to investigate about light e.g. how can we make a periscope? To be able to investigate shadows e.g. the size of a shadow based on the size of an object To be able to pose own question for investigation e.g. do different materials affect the shape of the shadow produced?
Sound	To be able to explore how things work.	To be able to describe what they see, hear and feel whilst outside.				To be able to investigate different sounds and how these are heard To be able to observe that sounds decrease when further away To be able to investigate pitch e.g. making own instruments with		



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							different thickness elastic bands To be able to investigate vibration of sound linked to volume e.g. drum and rice To be able to pose own investigation linked to volume e.g. which material would make the best ear defenders		
Earth and Space		To be able to explore the natural world around them. To be able to describe what they see, hear and feel whilst outside.					To be able to investigate movement of the earth around the sun and seasons e.g. balls and torch To be able to order the planets in the solar system To be able to describe the moment of planets in relation to the sun To be able to explore the geocentric and heliocentric models of the solar system		



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							<p>To be able to explore day and night</p> <p>To be able to order phases of the moon</p>	
Electricity	<p>To be able to explore how things work.</p>					<p>To be able to explore and name electrical components</p> <p>To be able to identify appliances that run on batteries and mains and how to keep safe around electricity</p> <p>To be able to investigate whether a bulb will light in a circuit</p> <p>To be able to investigate switches within circuits</p> <p>To be able to pose own question for investigation based on insulators and conductors</p>		<p>To be able to identify and use different components for a circuit</p> <p>To be able to match the components with circuit diagram symbols</p> <p>To be able to investigate number of cells in a circuit</p> <p>To be able to pose own investigation linked to resistance e.g. does the length of wire affect the brightness of a bulb?</p>
Materials	<p>To be able to use all their senses in hands-</p>		<p>To be able to identify different materials</p>	<p>To be able to examine different materials</p>	<p>To be able to observe different rocks and talk</p>	<p>To be able to group materials</p>	<p>To be able to sort materials based</p>	



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	<p>on exploration of natural materials. To be able to explore collections of materials with similar and/or different properties. To be able to talk about the differences between materials and changes they notice.</p>		<p>To be able to identify properties of common materials To be able to sort materials based on whether they are magnetic or not To be able to sort other materials according to properties that the children decide To be able to identify materials used for different things To be able to investigate which materials is best for a purpose e.g. building a dog basket</p>	<p>To be able to match different materials and their properties To be able to sort materials according to their own criteria e.g. hard and soft To be able to investigate different materials used around a particular area e.g. a car or school To be able to match a material to their use To be able to design an object thinking about the most appropriate material and why To be able to investigate absorbency of a material To be able to research own question e.g. which material is best to waterproof a roof To be able to test rigidity of a material</p>	<p>about their properties To be able to sort rocks according to their properties To be able to investigate adding water to rocks To be able to pose their own question to investigate e.g. what happens when an acid is added to rocks To be able to investigate the component of soil To be able to explain how fossils are formed</p>	<p>To be able to investigate gas e.g. dancing raisins To be able to explore the changing states of materials including condensation and evaporation To be able to investigate changing state of water e.g. melting and boiling points To be able to pose own question to investigate e.g. how long will it take for the ice to melt? To be able to order the water cycle</p>	<p>on their properties To be able to investigate reversible and irreversible changes e.g. water and toast To be able to investigate separating a solution e.g. sand and water To be able to pose their own question for separating solutions e.g. how can we separate a sugar and water solution? To be able to investigate which material is best for a particular purpose e.g. which material is best for a lunch box? To be able to pose their own question for investigation about properties of materials e.g. which material will make the best coat for a snowman?</p>	
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				<p>To pose their own question based on bounce e.g. which ball will bounce the highest</p> <p>To be able to investigate strength</p> <p>To be able to pose their own question for investigating strength e.g. which paper bridge will hold the most weight</p>				
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