

<p>Progression Science</p>	<p>EYFS Children in the EYFS will be working across Development Matters depending on their individual stage of development and planning will be adapted to reflect this. Depending on the children's interests and stages of development the time at which children present this learning may be different from that shown on this map.</p>										
	<p>Development Matters Birth to 3 years</p>	<p>Development Matters 3 and 4 years</p>	<p>Development Matters Children in reception will be learning to:</p>	<p>End of Year Assessment for Reception ELG's</p>	<p>Year 1</p>	<p>Year 2</p>	<p>Year 3</p>	<p>Year 4</p>	<p>Year 5</p>	<p>Year 6</p>	
<p>Working Scientifically</p>	<ul style="list-style-type: none"> Repeat actions that have an effect. Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips. 	<ul style="list-style-type: none"> Use all their senses in hands on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Explore how things work. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all 	<ul style="list-style-type: none"> Explore the natural world around them. Describe what they see, hear and feel whilst 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. 	<p>ELG: The Natural World Children at the expected level of development will: - Explore the natural world around them, making observations and drawing pictures of animals and plants; 15 - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<ul style="list-style-type: none"> With help, ask simple questions that begin with why, what if, how or when. Make suggestions about how to do things when we plan a simple test. With help, I use simple equipment and non-standard units to find things out. Observe using my senses. With help, I can gather and record data to help me answer my questions. Talk about what happened and say what they have seen. Discuss what has been done. 	<ul style="list-style-type: none"> Ask simple questions and recognise these questions can be answered in different ways. Decide, with help, what to find out, observe or measure. Observe closely using simple equipment. Identify and classify. Perform a simple test. Gather data and record data to help me answer my questions. Record using words, pictures, tables. Use my observations and ideas to suggest answers to my questions. Talk about findings 	<ul style="list-style-type: none"> Ask relevant questions and recognise that there are different types of enquiry. Set up simple practical enquiry and begin to understand how to make a fair test. Make suggestions about what observations and measurements to make and what equipment I need. Begin to make systematic and careful observations, using standard units. Gather data and record data. Record my findings. Present data. Use results when talking about what happened. 	<ul style="list-style-type: none"> Ask relevant questions and use different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative or fair tests. Use a range of equipment (including thermometers and data loggers). Make systematic and careful observations and take accurate measurements using standard units. Gather, record and classify data in a variety of ways to help me answer my questions. Record my findings using simple scientific languages, tables, drawings and labelled diagrams. 	<ul style="list-style-type: none"> Ask relevant questions and recognise which type of enquiry is the best to answer a question. Decide what observations and measurements to make. Use a range of equipment independently. Use information sources provided to find things out. Identify possible risks to myself and others. Gather and record results using tables and scientific diagrams. Present the results in a range of formats. Draw conclusion from my data and observations. Use basic scientific evidence to support ideas or 	<ul style="list-style-type: none"> Ask relevant questions containing scientific knowledge and understanding. Recognise which type of enquiry is best to answer a question. Plan different types of science enquiry to answer questions Recognise and control variables, where necessary. Take measurements using a range of scientific equipment with increasing accuracy and precision. Take repeat readings when appropriate. Record data and results of increasing complex. Present data and results in 	

		<p>living things.</p> <ul style="list-style-type: none"> • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. 						<ul style="list-style-type: none"> • Present data in a variety of ways. • Use me results to draw simple conclusions and make predictions for new values. C • Communicate what I have found out. • Suggest improvements to the way I carried out the enquiry • Suggest further questions to investigate. 	<p>arguments for a conclusion.</p> <ul style="list-style-type: none"> • Look at results and decide if observations and measurements are unsuitable. • Use what I have found out to suggest improvements for work. • Set up further questions to investigate. 	<p>suitable formats.</p> <ul style="list-style-type: none"> • Draw valid conclusions. • Identify scientific evidence to support ideas or arguments. • Use test results to make predictions to set up further enquiries.
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	Development Matters Birth to 3 years	Development Matters 3 and 4 years	Children in reception will be learning to	End of year assessment for Reception ELG's	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plants	<ul style="list-style-type: none"> Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips. 	<ul style="list-style-type: none"> Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant Begin to understand the need to respect and care for the natural environment and all living things. 	<ul style="list-style-type: none"> Explore the natural world around them. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of animals and plants; Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and name a variety of common wild and garden plants, including deciduous and evergreen trees identify and describe the basic structure of a variety of common flowering plants, including trees. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> observe and describe how seeds and bulbs grow into mature plants find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant investigate the way in which water is transported within plants explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			

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Animals including humans	<ul style="list-style-type: none"> Explore and respond to different natural phenomena in their setting and on trips. Notice differences between people. 	<ul style="list-style-type: none"> Understand the key features of the life cycle of an animal. Begin to understand the need to respect and care for the natural environment and all living things. 	<ul style="list-style-type: none"> Explore the natural world around them. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of animals and plants; 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals identify and name a variety of common animals that are carnivores, herbivores and omnivores describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> notice that animals, including humans, have offspring which grow into adults find out about and describe the basic needs of animals, including humans, for survival (water, food and air) describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe the simple functions of the basic parts of the digestive system in humans identify the different types of teeth in humans and their simple functions construct and interpret a variety of food chains, identifying producers, predators and prey. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe the changes as humans develop to old age. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and name the main parts of the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood materials. recognise the impact of diets, exercise, drugs and lifestyle on the way their bodies function describe the ways in which nutrients and water are transported within animals, including humans.

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Living things and their habitat.	<ul style="list-style-type: none"> Explore and respond to different natural phenomena in their setting and on trips. 	<ul style="list-style-type: none"> Understand the key features of the life cycle of an animal. Begin to understand the need to respect and care for the natural environment and all living things. 	<ul style="list-style-type: none"> Explore the natural world around them. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of animals and plants; 		<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> explore and compare the differences between things that are living, dead, and things that have never been alive identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other identify and name a variety of plants and animals in their habitats, including micro-habitats describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 		<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise that living things can be grouped in a variety of ways explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment recognise that environments can change and that this can sometimes pose dangers to living things. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird describe the life process of reproduction in some plants and animals. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals give reasons for classifying plants and animals based on specific characteristics.

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Evolution and inheritance	<ul style="list-style-type: none"> Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips. 		<ul style="list-style-type: none"> Recognise some environments that are different to the one in which they live. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will:</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p>						<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

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Materials	<ul style="list-style-type: none"> Explore materials with different properties. Explore natural materials, indoors and outside. 	<ul style="list-style-type: none"> Use all their senses in hands on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about the differences between materials and changes they notice. 	<ul style="list-style-type: none"> Explore the natural world around them. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will: Understand some important processes and changes in the natural world around them, including changing states of matter</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 			<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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 know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes 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. 	

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Rocks	<ul style="list-style-type: none"> Explore natural materials 	<ul style="list-style-type: none"> Explore collections of materials with similar and/or different properties 	Explore the natural world around them.	ELG: The Natural World Children at the expected level of development will: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class:			Pupils should be taught to: <ul style="list-style-type: none"> compare and group together different kinds of rocks on the basis of their appearance and simple physical properties describe in simple terms how fossils are formed when things that have lived are trapped within rock recognise that soils are made from rocks and organic matter. 			

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States of matter	<ul style="list-style-type: none"> Explore materials with different properties. Explore natural materials indoors and outside. Explore and respond to different natural phenomena in their setting and on trips. 	<ul style="list-style-type: none"> Explore collections of materials with similar and/or different properties. Talk about the differences between materials and changes they notice. 	<ul style="list-style-type: none"> Explore the natural world around them. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will:</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class:</p> <ul style="list-style-type: none"> Understand some important processes and changes in the natural world around them and changing states of matter. 				<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> compare and group materials together, according to whether they are solids, liquids or gases observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 		

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Seasonal Change	<ul style="list-style-type: none"> Explore and respond to different natural phenomena. 	<ul style="list-style-type: none"> Explore and talk about different forces they can feel. 	<ul style="list-style-type: none"> Understand the effect of changing seasons on the natural world around them. 	ELG: The Natural World Children at the expected level of development will: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Pupils should be taught to: <ul style="list-style-type: none"> observe changes across the four seasons observe and describe weather associated with the seasons and how day length varies. 					

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Light	<ul style="list-style-type: none"> Explore and respond to different natural phenomena. 	<ul style="list-style-type: none"> Talk about the differences between materials and changes they notice. 	<ul style="list-style-type: none"> Explore the natural world around them. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>			<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise that they need light in order to see things and that dark is the absence of light notice that light is reflected from surfaces recognise that light from the sun can be dangerous and that there are ways to protect their eyes recognise that shadows are formed when the light from a light source is blocked by an opaque object find patterns in the way that the size of shadows change. 			<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise that light appears to travel in straight lines 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 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 use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

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Forces and magnets	<ul style="list-style-type: none"> Repeat actions that have an effect. Explore and respond to different natural phenomena in their setting and on trips. 	<ul style="list-style-type: none"> Explore how things work. Explore and talk about different forces they can feel. 	<ul style="list-style-type: none"> Understand and the effect of changing seasons on the natural world around them. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>			<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> compare how things move on different surfaces notice that some forces need contact between two objects, but magnetic forces can act at a distance observe how magnets attract or repel each other and attract some materials and not others compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials describe magnets as having two poles predict whether two magnets will attract or repel each other, depending on which poles are facing. 		<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object identify the effects of air resistance, water resistance and friction, that act between moving surfaces recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 	

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Sound	<ul style="list-style-type: none"> Repeat actions that have an effect. 	<ul style="list-style-type: none"> Use all their senses in hands on exploration of natural materials. 	<ul style="list-style-type: none"> Describe what they see, hear and feel whilst outside. 	ELG: The Natural World Children at the expected level of development will: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class:				Pupils should be taught to: <ul style="list-style-type: none"> identify how sounds are made, associating some of them with something vibrating recognise that vibrations from sounds travel through a medium to the ear find patterns between the pitch of a sound and features of the object that produced it find patterns between the volume of a sound and the strength of the vibrations that produced it recognise that sounds get fainter as the distance from the sound source increases. 		

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Electricity	<ul style="list-style-type: none"> Repeat actions that have an effect. 	<ul style="list-style-type: none"> Explore how things work. 						<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify common appliances that run on electricity construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit recognise some common conductors and insulators, and associate metals with being good conductors. 		<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit 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 use recognised symbols when representing a simple circuit in a diagram.

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Earth and space	Explore and respond to different natural phenomena in their setting and on trips.	<ul style="list-style-type: none"> Talk about what they see, using a wide vocabulary. 	<ul style="list-style-type: none"> Recognise some environments that are different to the one in which they live. 	<p>ELG: The Natural World</p> <p>Children at the expected level of development will:</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class:</p>					<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe the movement of the Earth, and other planets, relative to the Sun in the solar system describe the movement of the Moon relative to the Earth describe the Sun, Earth and Moon as approximately spherical bodies use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. 	