

Science progression of skills

	EYFS	Year 1 and 2	Year 3 and 4	Year 5 and 6
Working scientifically	<p>ELG The natural world</p> <ul style="list-style-type: none"> To explore the natural world around them, making observations and drawing pictures of animals and plants. To 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>During all units, the children are given chances to:</p> <ul style="list-style-type: none"> Observe using simple equipment Ask questions Perform simple tests Gather and record data 	<p>Under the canopy (Spr 2 B) <u>Scientific enquiry</u></p> <ul style="list-style-type: none"> To explore how a solar oven can be made more effective, posing questions and writing predictions To write a method and carry out a practical test To conduct a fair test, managing the controls and variables 	<p>Frozen (Aut 1 A) <u>Looking after the environment</u></p> <ul style="list-style-type: none"> To learn about climate change To explore ways to reduce how much rubbish is sent to landfill To explore ways to reduce energy consumption To explore what happens when fuels are burnt To explore the outcomes of COP26 To compare data associated with the weather
Plants	<ul style="list-style-type: none"> To understand some important processes and changes in the natural world around them, including the seasons and changing states of matter 	<p>Great Grange! (Aut 2 A) <u>Plants</u></p> <ul style="list-style-type: none"> To understand that seeds grow into plants To identify the basic parts of a plant and tree To understand that different plants can grow in the same environment. To know the difference between deciduous and evergreen trees To know that fruit trees and vegetables are varieties of plants To record the growth of a plant <p>Up, up and away (Sum 1 A)</p>	<p>Unwelcome visitors (Spr 1 A) <u>Plants</u></p> <ul style="list-style-type: none"> To compare the effect of different factors on plant growth To identify and describe the functions of different parts of a flowering plant and how they are used in photosynthesis To investigate the way in which water is transported within plants To explore the part that flowers play in the life cycle of flowering plants To understand the pollination process and the ways in which seeds are dispersed 	

		<p><u>Plants</u></p> <ul style="list-style-type: none"> • To know the difference between seeds and bulbs • To design an experiment to find out what plants need to grow • To describe what plants need to grow and stay healthy • To describe the life cycle of a plant • To observe and record the growth of plants over time • To understand that plants adapt to suit their environment 	<ul style="list-style-type: none"> • To compare the effect of different factors on plant growth 	
<p>Animals including humans</p>		<p>Me, myself and I (Aut 1 A) <u>Animals including humans – all about me</u></p> <ul style="list-style-type: none"> • To discover the basic parts of the human body • To learn about eyes and sight • To learn about ears and hearing • To explore the tongue and taste • To explore the sense of touch • To discover how your nose smells <p>Toy story (Spr 1 A) <u>Animals including humans – all about animals</u></p> <ul style="list-style-type: none"> • To discover animal families 	<p>From field to fork (Aut 2 A) <u>Animals including humans</u></p> <ul style="list-style-type: none"> • To explore the 5 key food groups • To learn about the nutrition in the food we eat • To learn about the different types of skeletons • To learn about the human skeleton • To learn about animals and their skeletons • To explore the role of muscles <p>A child of the times (Aut 1 B) <u>Animals including humans</u></p> <ul style="list-style-type: none"> • To identify the organs in the digestive system • To describe the functions of the main organs in the digestive system 	<p>Off with her head! (Spr 2 A) <u>Animals including humans</u></p> <ul style="list-style-type: none"> • To understand the function of the heart and its role in the circulatory system • To identify and compare blood vessels • To explore blood • To learn how the body transports water and nutrients • To investigate what affects your heart rate • To learn about the impact of drugs and alcohol on the body <p>Protect our planet! (Aut 2 B) <u>Animals including humans</u></p> <ul style="list-style-type: none"> • To identify the key stages of a mammal’s life cycle • To explore the gestation periods of mammals

- To learn about the differences between mammals and birds
- To learn about the differences between amphibians and fish
- To discover the types of food living things eat
- To explore the difference between wild animals and pets
- To explain the characteristics of an animal

All around us (Spr 2 A)

Animals including humans – growth

- To describe the needs of animals for survival
- To describe the needs of humans for survival
- To explore the importance of eating the right food
- To describe what a healthy, balanced diet looks like
- To investigate the impact of exercise on our bodies
- To investigate hygiene

Beside the seaside (Sum 2 A)

Animals including humans – life cycles

- To order the stages of the human life cycle
- To describe the stages of a human life cycle
- To identify the offspring and parent of an animal

- To identify the types of human teeth and their functions
- To investigate the effects of different liquids on the teeth
- To understand food chains
- To explore food webs

- To learn about foetal development
- To investigate the hand span of different aged children
- To learn about the changes experienced during puberty
- To describe the changes humans may experience during adulthood and old age

<p>Everyday materials (y1)</p> <p>Use of everyday materials (y2)</p> <p>States of matter (y4)</p> <p>Properties and changes of materials (y5)</p>		<ul style="list-style-type: none"> To explore the life cycle of a chicken, butterfly and frog <p>Take a break (Aut 2 B)</p> <p><u>Everyday materials – exploring everyday materials</u></p> <ul style="list-style-type: none"> To identify and name a variety of everyday materials To distinguish between an object and the material it is made from To describe the properties of everyday materials To identify objects that are natural and those that are man made To predict and identify if an object will float or sink To explore which materials are best for different objects <p>Back to school (Spr 2 B)</p> <p><u>Everyday materials – building</u></p> <ul style="list-style-type: none"> To build a structure strong enough to withstand wind To build a waterproof structure To understand the properties of glass and its uses To understand that materials are used to create a variety of furniture To explore a variety of fabrics and understand their different properties To explain the uses of materials and why they are suitable 	<p>Kingdom of bronze (Sum 1 B)</p> <p><u>States of matter</u></p> <ul style="list-style-type: none"> To compare and group the 3 states of matter To explore how particles behave in solids, liquids and gases To investigate melting points To explore freezing and boiling points To explore evaporation and condensation To understand the water cycle 	<p>Children of the revolution (Aut 1 B)</p> <p><u>Changes of materials</u></p> <ul style="list-style-type: none"> To use evaporation to recover the solute from a solution To recognise and describe reversible changes To observe chemical reactions and describe how we know new materials are made To investigate rusting reactions To investigate burning reactions To investigate chemical reactions (acids and bicarbonate of soda) <p>Unheard histories (Sum 1 B)</p> <p><u>Properties of materials</u></p> <ul style="list-style-type: none"> To explore properties of materials To explore thermal conductors and thermal insulators To explore the hardness of materials To discover materials that become soluble in water To investigate the solubility of materials To explore how mixtures could be separated by filtering, sieving, evaporating or using magnets.
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<p>Seasonal changes</p>		<p>Around the world (Spr 1 B)</p> <p><u>Seasonal changes</u></p> <ul style="list-style-type: none"> • To understand there are four seasons • To understand the changes that take place in the different seasons • To investigate how you can measure rainfall 		
<p>Living things and their habitats</p>		<p>Never eat shredded wheat (Aut 1 B)</p> <p><u>Living things and their habitats</u></p> <ul style="list-style-type: none"> • To explore and compare the differences between things that are living, dead and things that have never been alive 	<p>Poles apart (Aut 2 B)</p> <p><u>Living things and their habitats</u></p> <ul style="list-style-type: none"> • To explore different habitats • To research and explore a habitat • To explore how animals can be classified • To create a classification key 	<p>In the heat (Spr 1 A)</p> <p><u>Living things and their habitats</u></p> <ul style="list-style-type: none"> • To classify living organisms • To understand the kingdoms of life • To classify living things using the Linnaean system

		<ul style="list-style-type: none"> • To identify and name a variety of plants and animals in a microhabitat • To design a suitable microhabitat where living things could survive • To find out what animals eat to survive in their habitats • To understand a food chain • To understand the journey food makes from the farm to the supermarket <p>Here and there (Sum 1 B) <u>Living things and their habitats- habitats around the world</u></p> <ul style="list-style-type: none"> • To learn about habitats • To appreciate that environments are constantly changing • To explore the rainforest and its problems • To describe life in the ocean • To discover the Arctic and Antarctic habitat • To create a model of a habitat 	<ul style="list-style-type: none"> • To explore adaptations and classification within species • To explore and classify pond plants <p>Raging rivers (Sum 2 B) <u>Living things and their habitats – conservation</u></p> <ul style="list-style-type: none"> • To describe the ecosystems and how they are affected by the change in the seasons • To understand human impact on the environment through deforestation • To explore air pollution • To understand water pollution • To explore methods that can be used to conserve water • To understand that humans can have a positive impact on nature 	<ul style="list-style-type: none"> • To identify the characteristics of different types of microorganisms • To investigate asexual reproduction through spore dispersal • To classify and describe a living organism <p>Data mining (Sum 2 B) <u>Living things – life cycles and reproduction</u></p> <ul style="list-style-type: none"> • To understand the life process of a plant • To understand the life cycles of mammals • To compare the life cycles of insects and amphibians • To understand the life cycle of birds and reptiles • To know about Jane Goodall and David Attenborough • To research and present the life cycle of a creature
<p>Rocks</p>			<p>Ug! (Aut 1 A) <u>Rocks</u></p> <ul style="list-style-type: none"> • To explore the formation and properties of igneous rocks • To explore the formation and properties of sedimentary and metamorphic rocks • To study weathering and the suitability of rocks for different purposes 	

			<ul style="list-style-type: none"> To explore how water contributes to the weathering of rocks To understand how fossils are formed To explore the different types of soil 	
<p style="text-align: center;">Light</p>			<p>Invaders and settlers (Sum 2 A) <u>Light unit</u></p> <ul style="list-style-type: none"> To identify the difference between light sources and non-light sources To explore the light that comes from the sun and how to stay safe To explore materials which are reflective To discover how shadows are formed To investigate how shadows change throughout the day To investigate how you can change the size of a shadow 	<p>Going green (Sum 1 A) <u>Light</u></p> <ul style="list-style-type: none"> To explore how light travels To explore reflection To explore reflection and explain how it can be used to help us see To investigate how shadows can change To investigate how we can show why shadows have the same shape as the object that casts them To investigate how we see objects
<p style="text-align: center;">Forces and magnets</p>			<p>Extreme earth (Sum 1 A) <u>Forces and magnets</u></p> <ul style="list-style-type: none"> To explore contact and non-contact forces To compare how things move on different surfaces To explore different types of magnets To explore the properties of magnets and everyday objects that are magnetic To understand that magnetic forces can act at a distance To explore the everyday uses of magnets 	<p>Pollution solution (Spr 2 B) <u>Forces</u></p> <ul style="list-style-type: none"> To explore gravity and the life and work of Isaac Newton To examine the connection between air resistance and parachutes To explore factors which affect an object's ability to resist water To investigate the effects of friction on different surfaces To investigate mechanisms – levers and pulleys

			<ul style="list-style-type: none"> To investigate mechanisms - gears
Sound		<p>All wrapped up! (Spr 1 B)</p> <p><u>Sound</u></p> <ul style="list-style-type: none"> To identify how sounds are made To explore how vibrations from sounds travel through a medium to the ear To explore sound insulation To explore volume To explore pitch To explore sounds from near and far 	
Electricity		<p>Location, location, location (Spr 2 B)</p> <p><u>Electricity</u></p> <ul style="list-style-type: none"> To explore electrical appliances and electrical safety To learn about electrical components in a series circuit To investigate electrical circuits To explore conductors and insulators To learn about electrical switches To investigate how electrical components can change within a circuit 	<p>Blitzed Britain (Sum 2 A)</p> <p><u>Electricity</u></p> <ul style="list-style-type: none"> To describe the parts of an electric circuit To explore voltage and its effect on an electrical circuit To apply knowledge to identify and correct problems in a circuit To investigate what affects the output of a circuit To build a set of traffic lights To apply knowledge of conductors and insulators
Earth and space			<p>Who let the Gods out? (Spr 1 B)</p> <p><u>Earth and space</u></p> <ul style="list-style-type: none"> To explore the solar system and its planets To understand the heliocentric model of the solar system

				<ul style="list-style-type: none"> • To explain the Earth's movement in space • To explain the Earth's rotation and night and day • To explain the movement of the moon • To design a planet using knowledge gained
<p>Evolution and inheritance</p>				<p>Raid, invade and stayed! (Aut 2 A)</p> <p><u>Evolution and inheritance</u></p> <ul style="list-style-type: none"> • To understand how offspring vary and are not identical to their parents • To learn about animal adaptations • To learn about plant adaptations • To explore that we can learn from fossils • To explore the theory of evolution • To explore human evolution