



Science Progression of Skills

PLANTS

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p><i>What's Growing in Our Gardens?</i></p> <p>To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>To identify and describe the basic structure of a variety of common flowering plants, including trees.</p>	<p>To observe and describe how seeds and bulbs grow into mature plants.</p> <p>To find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>To identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</p> <p>To 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.</p> <p>To investigate the way in which water is transported within plants.</p>		<p>To revise pollination and seed dispersal.</p> <p>To identify the different stages of the plant life cycle.</p> <p>To understand that plants can reproduce sexually and asexually.</p> <p>To name the male and female parts of the plant and the part they play in a plant's reproduction.</p>	

			To 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

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Talk about members of their immediate family and community.</p> <p>Name and describe people who are familiar to them.</p> <p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p>	<p>(Humans) To 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> <p>(Animals) To identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>To identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p>	<p>To notice that animals, including humans, have offspring which grow into adults.</p> <p>To find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>To describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p>To 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.</p> <p>To identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p>To describe the simple functions of the basic parts of the digestive system in humans.</p> <p>To identify the different types of teeth in humans and their simple functions.</p> <p>To construct and interpret a variety of food chains, identifying producers, predators and prey.</p>	<p>To complete diagrams explaining changes involved in puberty.</p> <p>To explore the life cycle of Humans (8 different stages).</p> <p>To describe the changes of the human body.</p> <p>To investigate the gestation period of different mammals.</p>	<p>To identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>To describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p>

	To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).					
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LIVING THINGS AND THEIR HABITATS

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Recognise some similarities and differences between life in this country and life in other countries.</p> <p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Recognise some environments that are different to the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>		<p>To identify and name a variety of animals in their habitats, including microhabitats.</p> <p>To 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>		<p>To recognise that living things can be grouped in a variety of ways.</p> <p>To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>To recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>To be able to investigate and describe the dangers of deforestation in Madagascar.</p>	<p>To describe the life process of reproduction in some plants and animals.</p> <p>I can describe the differences in the life cycles of a mammal, amphibian, an insect and a bird.</p>	<p>To 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.</p> <p>To give reasons for classifying plants and animals based on specific characteristics.</p>

				To name some endangered animals in Madagascar and to describe Gerald Durrell and his conservation work in Madagascar.		
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LIGHT AND SOUND

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>			<p>To recognise that they need light in order to see things and that dark is the absence of light.</p> <p>To notice that light is reflected from surfaces.</p> <p>To recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p> <p>To recognise that shadows are formed when the light from a light source is blocked by an opaque object.</p> <p>To find patterns in the way that the size of shadows change.</p>	<p>To identify how sounds are made, associating some of them with something vibrating.</p> <p>To recognise that vibrations from sounds travel through a medium to the ear.</p> <p>To find patterns between the pitch of a sound and features of the object that produced it.</p> <p>To find patterns between the volume of a sound and the strength of the vibrations that produced it.</p>		<p>To recognise that light appears to travel in straight lines.</p> <p>To 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.</p> <p>To 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.</p> <p>To use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>

				To recognise that sounds get fainter as the distance from the sound source increases.		
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FORCES AND MAGNETS

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p>			<p>To notice that some forces need contact between two objects, but magnetic forces can act at a distance.</p> <p>To observe how magnets attract or repel each other and attract some materials and not others.</p> <p>To 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.</p> <p>To describe magnets as having two poles.</p> <p>To predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>		<p>To understand that levers and pulleys and simple machines.</p> <p>To investigate how levers work and how the position of the fulcrum affects its effectiveness.</p> <p>To investigate how pulleys work and note the correlation between effort required and the number of pulleys.</p>	

SEASONAL CHANGES, EARTH AND SPACE

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Recognise some environments that are different to the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p><i>Seasonal Changes:</i></p> <p>To observe changes across the four seasons.</p> <p>To observe and describe weather associated with the seasons and how day length varies.</p>				<p>To learn about the relative sizes and distances of the sun, moon and earth.</p> <p>To research the different planets in the solar system.</p> <p>To understand how the position of the earth in relation to the sun causes the seasons and day and night.</p> <p>To understand the difference between rotation and revolution. To learn about the phases of the moon.</p>	

MATERIALS, STATES OF MATTER, PROPERTIES AND CHANGES OF MATERIALS

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p>	<p>To distinguish between an object and the material from which it is made.</p> <p>To compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>To 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.</p>	<p>To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>To find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>		<p>To compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>To 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).</p> <p>To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>Testing materials - in order to plan their own investigations of properties.</p> <p>Soluble or insoluble materials.</p> <p>To carry out an investigation after predicting and exploring the solubility of different materials.</p> <p>To investigate different methods for separating materials.</p> <p>To understand that changes can be reversible and irreversible.</p> <p>To investigate endothermic and exothermic reactions.</p>	

ELECTRICITY

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Recognise some similarities and differences between life in this country and life in other countries.</p> <p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p>				<p>To identify common appliances that run on electricity.</p> <p>To construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>To 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.</p> <p>To recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>To recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p>To describe Lord Kelvin's life and work.</p>		<p>To associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>To 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.</p> <p>To use recognised symbols when representing a simple circuit in a diagram.</p>

ROCKS AND SOIL

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Recognise some environments that are different to the one in which they live.</p>			<p>To compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p>To describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>To recognise that soils are made from rocks and organic matter.</p>			

EVOLUTION AND INHERITANCE

Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Talk about members of their immediate family and community.</p> <p>Name and describe people who are familiar to them.</p> <p>Explore the natural world around them.</p>						<p>To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p>

<p>Describe what they see, hear and feel whilst outside.</p>						<p>To identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>
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