



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>(What's Growing in Our Gardens?)</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. To explore the part that flowers play in the life cycle of flowering plants, including pollination,</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>	

seed formation and
seed dispersal.

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 To identify and name a variety of common animals that are carnivores, herbivores and omnivores To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p>	<p>To notice that animals, including humans, have offspring which grow into adults. To find out about and describe the basic needs of animals, including humans, for survival (water, food and air) 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 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 To identify the different types of teeth in humans and their simple functions To construct and interpret a variety of food chains, identifying producers, predators and prey.</p>	<p>To complete diagrams explaining changes involved in puberty. To explore the life cycle of Humans (8 different stages). 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. 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. To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p>

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 To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment 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 To name some endangered animals in Madagascar and to describe Gerald Durrell and his conservation work 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>

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 sounds get fainter as the distance from the sound source increases</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>

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</p>		<p>To understand that levers and pulleys and simple machines.</p> <p>To investigate how levers work and how the position of the</p>	

			<p>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>fulcrum affects its effectiveness.</p> <p>To investigate how pulleys work and note the correlation between effort required and the number of pulleys.</p>	
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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</p>	<p>Seasonal Changes:</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 & night.</p> <p>To understand the difference between</p>	

effect of changing seasons on the natural world around them.					rotation and revolution. To learn about the phases of the moon.	
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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. 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 To describe in simple terms how fossils are formed when things that have lived are trapped within rock 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>Describe what they see, hear and feel</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>To identify how animals and plants are adapted to suit their environment in different ways and that</p>

whilst outside.

adaptation may lead to evolution.