



### Progression Map for Science

Topic	R	Y1	Y2	Y3	Y4	Y5	Y6
Animals including Humans	<p><b>Understanding the World-</b></p> <p><b>The Natural World ELG 1</b></p> <p>Explore the natural world around them, making observations and drawing pictures of animals.</p> <p><b>The Natural World ELG 2</b></p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences</p>	<p><b>Animals and Humans</b></p> <ul style="list-style-type: none"> <li>Identify, name, draw and label the <b>basic parts of the human body</b> and say which part of the body is associated with each sense.</li> <li>Identify and name a <b>variety of common animals</b> including some fish, some amphibians, some reptiles, some birds and some mammals. [Builds on YR drawing animals]</li> <li>Identify and name a variety of common animals</li> </ul>	<p><b>Health – How we stay healthy</b></p> <ul style="list-style-type: none"> <li>Describe the importance for humans of <b>exercise, eating</b> the right amounts of different types of food, and hygiene.</li> </ul> <p><b>Animals - Animal survival and Habitats</b></p> <ul style="list-style-type: none"> <li>Identify and name a variety of <b>plants and animals in their habitats</b>, including microhabitats. [Building on Y1 naming a variety of common animals]</li> </ul>	<p><b>Animals - Health/Nutrition and Animals - Skeletons and Movement</b></p> <ul style="list-style-type: none"> <li>An <b>adequate and varied diet</b> is beneficial to health.</li> <li>Regular and varied <b>exercise</b> from a variety of different activities is beneficial to health. [Building on Y2 Health]</li> <li>Identify that humans and some other animals have <b>skeletons and muscles</b> for support, protection and movement.</li> <li><b>Identify animals (vertebrates) which have a skeleton</b> which supports their</li> </ul>	<p><b>Environment – Living Things and Their Habitats</b></p> <ul style="list-style-type: none"> <li>Recognise that living things can be <b>grouped</b> in a variety of ways.</li> <li>Explore and use <b>classification keys</b> to help group, identify and name a variety of living things in their local and wider environment.</li> <li>Recognise that <b>environments can change</b> and that this can sometimes pose dangers to living things. [Link to Y2 Habitats]</li> </ul>	<p><b>Environment- Observing life cycles</b></p> <ul style="list-style-type: none"> <li>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</li> <li>Describe the life process of <b>reproduction</b> in some plants and animals.</li> <li>Name, locate and describe the functions of the main <b>parts of reproductive system of plants</b></li> <li>Describe the changes as humans develop to <b>old age</b>.</li> </ul>	<p><b>Animals/Health – Exercise, Health and The Circulatory System</b></p> <ul style="list-style-type: none"> <li>Identify and name the main parts of the human <b>circulatory system</b>, and describe the functions of the heart, blood vessels and blood.</li> <li>Recognise the <b>impact of diet, exercise, drugs and lifestyle</b> on the way their bodies function (in the long term and short term). [Building on Y3 Health]</li> <li>Describe the ways in which <b>nutrients and water are transported</b> within animals, including humans.</li> </ul>

	<p>and what has been read in class.</p>	<p>that are <b>carnivores, herbivores and omnivores</b> (i.e. according to what they eat).</p> <ul style="list-style-type: none"> <li>Describe and compare the <b>structure of a variety of common animals</b> (fish, amphibians, reptiles, birds and mammals, and including pets).</li> </ul>	<ul style="list-style-type: none"> <li>Find out about and describe the <b>basic needs of animals</b> for survival (water, food and air).</li> <li>Explore and compare the differences between things that are <b>living, dead, and things that have never been alive</b>.</li> <li>Identify that most living things live in <b>habitats to which they are suited</b>. [Builds on YR similar and different environments]</li> <li>Describe how different <b>habitats provide for the basic needs</b> of different kinds of animals and plants, and how they depend on each other.</li> <li>Describe how animals obtain their food from plants and other animals, using the idea of a <b>simple food chain</b>, and identify and name different</li> </ul>	<p>body, aids movement &amp; protects vital organs (e.g. name and locate skull, backbone, ribs, bones for movement/limbs, pelvis and be able to name some of the vital organs protected).</p>	<p><b>Animals – Teeth, Eating and Digestion</b></p> <ul style="list-style-type: none"> <li>Describe the simple functions of the basic parts of the <b>digestive system</b> in humans. [Builds on Y3 Skeletons]</li> <li>Identify the <b>different types of teeth</b> in humans and their simple functions.</li> <li>Construct and interpret a <b>variety of food chains</b>, identifying producers, predators and prey. [Builds on Y2 simple food chains]</li> </ul>		<p>[Links to Y3 water transport in plants]</p> <p><b>Living Things and their Habitats-classification</b></p> <ul style="list-style-type: none"> <li>Describe how living things are <b>classified</b> into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. [Building on Y4 classification]</li> </ul> <p><b>Living Things and their Habitats – Evolution and Inheritance</b></p> <ul style="list-style-type: none"> <li>Recognise that living things have changed over time and that <b>fossils</b> provide information about living things that inhabited the Earth millions of years ago. [Builds on Y3</li> </ul>
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			<p>sources of food. [Link to Y1 carnivore, herbivore and omnivore]</p> <p><b>Living Things-How we grow</b></p> <ul style="list-style-type: none"> <li>Find out about and describe the <b>basic needs of humans</b>, for survival (water, food and air).</li> </ul> <p><b>Animals –Animal growth</b></p> <ul style="list-style-type: none"> <li>Notice that animals have <b>offspring</b> which grow into adults.</li> </ul>				<p><b>Fossils, rocks and soils]</b></p> <ul style="list-style-type: none"> <li>Recognise that living things <b>produce offspring of the same kind</b>, but normally offspring vary and are not identical to their parents. [Link to Y2 offspring]</li> <li>Identify how animals and plants are <b>adapted to suit their environment</b> in different ways and that adaptation may lead to evolution. [Building on Y2 and Y4 Habitats]</li> </ul>
Materials	<p><b>Understanding the World- The Natural World ELG 3</b></p> <p>Understand some important processes and changes in the natural world around them, including</p>	<p><b>Material Properties – Everyday Materials</b></p> <ul style="list-style-type: none"> <li><b>Distinguish</b> between an object and the material from which it is made.</li> <li>Identify and name a <b>variety of everyday materials</b>, including wood, plastic, glass, metal, water, rock, brick,</li> </ul>	<p><b>Material Properties Part 1</b></p> <ul style="list-style-type: none"> <li>Find out how the shapes of solid objects made from some materials can be <b>changed by squashing, bending, twisting and stretching</b> (applying a force). [Links to YR changing states of matter]</li> </ul>		<p><b>Material Properties and Changes – States of Matter</b></p> <ul style="list-style-type: none"> <li>Compare and group materials together, according to whether they are <b>solids, liquids or gases</b>.</li> <li>Observe that some</li> </ul>	<p><b>Material Properties-Testing material properties</b></p> <ul style="list-style-type: none"> <li>Compare and <b>group together everyday materials on the basis of their properties</b>, including their hardness, solubility, transparency, conductivity (electrical and</li> </ul>	

	<p>changing states of matter.</p>	<p>paper and cardboard.</p> <ul style="list-style-type: none"> <li>Describe the simple <b>physical properties</b> of a variety of everyday materials.</li> <li>Compare and <b>group together</b> a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p><b>Material Properties – Uses of Materials</b></p> <ul style="list-style-type: none"> <li><b>Identify and compare the suitability of a variety of everyday materials</b>, including wood, metal, plastic, glass, brick, water, rock, paper and cardboard for particular uses. [Building on Y1 Materials]</li> </ul>		<p>materials <b>change state</b> when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).</p>	<p>thermal), and response to magnets. [Linking to Y1 and 2 Materials] [Building on Y4 electrical insulators/ conductors]</p> <ul style="list-style-type: none"> <li>Give reasons, based on evidence from comparative and fair tests, <b>for the particular uses of everyday materials</b>, including metals, wood and plastic (advantages and disadvantages).</li> </ul>	
Plants	<p><b>Understanding the World- The Natural World ELG 1</b></p> <p>Explore the natural world around them, making observations and drawing pictures of plants.</p>	<p><b>Plants: Common Names and Basic Structure</b></p> <ul style="list-style-type: none"> <li>Identify and name a <b>variety of common wild and garden plants</b>, including deciduous and evergreen trees.</li> <li>Identify and describe the <b>basic structure of a variety of common flowering plants</b>, including trees (at least: flower, leaf, root, stem, trunk,</li> </ul>	<p><b>Plants – Plant growth</b></p> <ul style="list-style-type: none"> <li>Observe and describe <b>how seeds and bulbs grow</b> into mature plants.</li> <li>Find out and describe how <b>plants need water, light and a suitable temperature to grow</b> and stay healthy (and how changing these affects the plant).</li> </ul>	<p><b>Plants – Functions of Parts of a Plant</b></p> <ul style="list-style-type: none"> <li>Identify, locate and describe the <b>functions of different parts of flowering plants</b>: roots, stem/trunk, leaves and flowers. [Building on Y1 basic structure]</li> <li>Explore the <b>requirements of plants for life and growth</b> (air, light, water, nutrients from soil, and room to</li> </ul>		<ul style="list-style-type: none"> <li>Describe the life process of <b>reproduction in some plants</b> and animals.</li> <li>Name, locate and describe the functions of the <b>main parts of reproductive system of plants</b> [Building on Y3 Flowers]</li> </ul>	

		seed, branch and petal). [Builds on YR observing and drawing plants]		grow) and how they vary from plant to plant. [Building on Y2 what plants need] <ul style="list-style-type: none"> <li>Investigate the way in which <b>water is transported</b> within plants.</li> <li>Explore the <b>part that flowers play in the life cycle</b> of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>			
Light and Astronomy	<p><b>Understanding the World- The Natural World ELG 3</b></p> <p>Understand some important processes and changes in the natural world around them, including the seasons.</p>	<p><b>Light and Astronomy – Seasonal Change throughout the year</b></p> <ul style="list-style-type: none"> <li>Observe and describe <b>changes across the four seasons.</b></li> <li>Observe and describe <b>weather associated with the seasons</b> and how day length and temperature vary. [Builds on YR understanding seasonal changes]</li> </ul>		<p><b>Light and Astronomy - Light, reflections and shadows</b></p> <ul style="list-style-type: none"> <li>Notice that <b>light is reflected</b> from surfaces.</li> <li>Recognise that <b>shadows are formed when the light from a light source is blocked</b> by a solid object.</li> <li>Find <b>patterns</b> in the way that the size of shadows can change.</li> </ul>		<p><b>Light and Astronomy-Earth and Space</b></p> <ul style="list-style-type: none"> <li><b>Describe the movement of the Earth, and other planets,</b> relative to the Sun and each other in the solar system. Describe the movement of the Moon relative to the Earth.</li> <li>Describe Sun/Earth/Moon as approximately <b>spherical bodies.</b></li> </ul>	<p><b>Light and Astronomy – How Light Travels Light</b></p> <ul style="list-style-type: none"> <li>Recognise that light appears to <b>travel in straight lines.</b></li> <li>Use the idea that light travels in straight lines to explain that objects are seen because they give out or <b>reflect light into the eye.</b> [Building on Y3 Light]</li> <li>Explain that we see things because the light that travels from light sources to</li> </ul>

						<ul style="list-style-type: none"> <li>Use the idea of the Earth's rotation to <b>explain day and night</b>.</li> </ul>	<p>our eyes or from light sources to objects and then to our eyes (and represent this in simple diagrammatic form).</p> <ul style="list-style-type: none"> <li>Use the idea that light travels in straight lines to explain why <b>shadows have the same shape as the objects that cast them</b>. <a href="#">[Link to Year 3 Shadows]</a></li> </ul>
Forces			<p><b>Material Properties Part 1</b></p> <ul style="list-style-type: none"> <li>Find out how the shapes of solid objects made from some materials can be <b>changed by squashing, bending, twisting and stretching (applying a force)</b>.</li> </ul>	<p><b>Forces and Magnets</b></p> <ul style="list-style-type: none"> <li>Notice that some forces need contact between two objects but magnetic forces can act at a distance. <a href="#">[Building from Y2 Applying forces]</a></li> <li>Observe how <b>magnets attract or repel each other</b> and attract some materials and not others.</li> <li>Compare and group together a variety of everyday materials on the</li> </ul>		<p><b>Forces-Effects on movement</b></p> <ul style="list-style-type: none"> <li>Explain that unsupported objects fall towards the Earth because of the force of <b>gravity</b> acting between the Earth and the falling object.</li> <li>Identify the effects of <b>air resistance, water resistance and friction</b> that act between moving surfaces (causing things to slow down).</li> </ul>	

				<p>basis of <b>whether they are attracted to a magnet</b>, and identify some magnetic materials.</p> <ul style="list-style-type: none"> <li>Describe magnets as having two poles (like and unlike poles).</li> <li>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>		<ul style="list-style-type: none"> <li>Recognise that some mechanisms, including levers, pulleys and gears, allow a <b>smaller force to have a greater effect</b>.</li> <li>There are <b>different types of forces</b> (push, pull, friction, air resistance, water resistance, magnetic forces, gravity) which have different effects on objects. [Linking to Y2 applying forces]</li> <li>Gravity can act without direct contact between the Earth and an object.</li> </ul>	
Electricity					<p><b>Electricity</b></p> <ul style="list-style-type: none"> <li>Construct a <b>simple series electrical circuit</b>, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</li> </ul>	<p><b>Electricity [Builds on Y4]</b></p> <ul style="list-style-type: none"> <li>Associate the brightness of a lamp or the volume of a buzzer with the <b>number and voltage of cells</b> used in the circuit.</li> <li>Compare and give reasons for</li> </ul>	

					<ul style="list-style-type: none"><li>● <b>Identify whether or not a lamp will light</b> in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.</li><li>● <b>Recognise that a switch opens and closes a circuit</b> and associate this with whether or not a lamp lights in a simple series circuit.</li><li>● <b>Recognise some common conductors and insulators</b>, and associate metals with being good conductors.</li></ul>		<p>variations in <b>how components function</b>, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.</p> <ul style="list-style-type: none"><li>● Use <b>recognised symbols</b> (at least: cells, wires, switches, bulbs, buzzers and motors) when representing a simple circuit in a diagram.</li><li>● Use/interpret <b>circuit diagrams</b>.</li></ul>
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Rocks and Soils				<b>Material Properties - Rocks, Fossils and Soils</b> <ul style="list-style-type: none"><li>● Compare and group together <b>different kinds of rocks</b> on the basis of their appearance and simple physical properties.</li><li>● Describe in simple terms <b>how fossils are formed</b> when things that have lived are trapped within rock.</li><li>● Recognise that soils are made from rocks and organic matter.</li></ul>			
Sound					<b>Sound</b> <ul style="list-style-type: none"><li>● Identify how sounds are made, associating some of them with something <b>vibrating</b>.</li><li>● Recognise that vibrations from <b>sounds travel through a medium to the ear</b>.</li></ul>		

					<ul style="list-style-type: none"><li>● Find <b>patterns between the volume of a sound and the strength</b> of the vibrations that produced it.</li><li>● Recognise that <b>sounds get fainter as the distance</b> from the sound source increases.</li></ul>		
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