

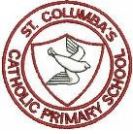


St. Columba's Catholic Primary School

Science Skills Progression

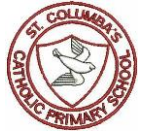


Key Strand	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Biology	<p>Can make observations of animals and explain why things occur and talk about changes (ELG).</p> <p>Can look at different animals and their body parts. Talk about why they have them e.g. beak, wings, leg.</p> <p>Can talk about the differences between animals</p>	<p>Can identify and name some common animals.</p> <p>Can name common animals which are herbivores, carnivores and omnivores.</p> <p>Can describe and compare the structure of animals including pets.</p> <p>Can identify, name, draw and label basic parts of the human body and the senses.</p> <p>Can identify and name a variety of common wild and garden plants, including deciduous and evergreen.</p>	<p>Know that animals, including humans, have offspring which grow into adults</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, air and food.)</p> <p>Describe the importance of exercise for humans, eating the right amount of the food groups and hygiene.</p> <p>Can explore & compare the difference between the things that are living, dead and</p>	<p>Can identify that animals including humans need the right types and amount of nutrition and they cannot make their own food; they get their nutrition from the food they eat.</p> <p>Can identify that humans and some animals have skeletons and muscles for support, movement and protection.</p>	<p>Can describe the functions of the basic parts of the human digestive system.</p> <p>Can identify the different types of human teeth and their basic functions.</p> <p>Can construct and interpret a variety of food chains, indentifying producers, consumers, predators and prey.</p> <p>Can recognise that living things can be grouped in a variety of ways.</p> <p>Can interpret and construct a range of classification keys to help group, indentify and name a variety</p>	<p>Can describe the changes in humans as they develop into old age.</p> <p>Can describe the differences in life cycles of a mammal, amphibian, insect and a bird.</p> <p>Can describe the life processes of reproduction in some plants and animals.</p>	<p>Can name and identify the main part of the human circulatory system and describe the functions of the heart, blood vessels and blood.</p> <p>Can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>Can describe the ways in which nutrients and water are transported around the body within animals including humans.</p> <p>Can recognise that living things</p>



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		Can identify and describe the basic structure of a variety of common flowering plants, including trees.	<p>things that have never been alive.</p> <p>Can identify that most living things live in a habitat which they are suited & describe how different habitats provide basic needs of</p>		<p>of living things in their local and wider environment.</p> <p>Can identify natural and human changes on the environment which can pose dangers to living things and habitats.</p>		<p>have changed over time and that fossils provide information about living things that inhabited the world millions of years ago.</p>
	<p>Can make observations of plants and explain Why things occur and talk about changes (ELG).</p> <p>Can examine change over time, for example, growing plants. Talk about the parts and what happens to them. Use language e.g.</p>		<p>different kinds of animals and plants & how they depend on each other.</p> <p>Can name & identify a variety of plants and animals in their habitats including micro-habitats.</p> <p>Can observe and describe how seeds and bulbs grow into mature plants.</p>				<p>Can recognise that living things produce offspring of the same kind but normally vary and are different to their parents</p> <p>Can identify how plants and animals are suited to their environment and that adaptation may lead to evolution.</p>



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	leaves, roots, stem, petal.		Can find and describe how plants need water, light and a suitable temperature to grow and stay healthy.				
Chemistry Materials	Can talk about similarities and differences in relation to places, objects, materials and living things. Can sort materials using criteria such as soft, hard, flexible, plastic, wood, metal.	Can distinguish between the object and the material from which it is made. Can name and identify a variety of everyday materials including wood, plastic, glass, metal water and rock. Can name the simple physical properties of a variety of everyday materials.	Can identify and compare the suitability of a variety of everyday materials including wood, metal, plastic, glass, brick, rock paper and cardboard for particular uses. Can find out how the shapes of solid objects made from some materials can be changed by squashing, bending,	Can compare and group together different kinds of rock on the basis of their appearance and simple physical properties. Can describe in simple terms how fossils are formed, when things that have lived are trapped within rocks. Can recognise that soils are made from rocks and organic matter.	Can compare and group materials together, according to whether they are solids, liquids or gases. Can observe that some materials change state when they are heated or cooled and measure or research temperatures in degrees Celsius which this happens.	Can compare and group together materials on the basis of their properties and their hardness and solubility, transparency, conductivity (thermal/electrical) and response the magnets. Can name some materials that will dissolve in water and form a solution and describe how to	N/A



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		Can compare and group together a variety of everyday materials on the basis of their basic physical properties.	twisting and stretching.		Can identify the part played by evaporation and condensation in the water cycle, and associate the rate of evaporation with temperature.	recover a substance from a solution. Can use knowledge of solids, liquids and gases to decide how mixtures might be separated including through filtering, sieving and evaporating. Can give reasons based on comparative or fair tests for the particular uses of everyday materials including metal, wood and plastic.	
Physics Action to develop in	Can discuss features of the environment and how	Can observe changes across the four seasons.	Can observe changes across the four seasons.	Can recognise that they need light in order to see things	Can identify how sounds are made associating some of them with	Can describe the movement of the Earth and other	Can use the idea that light travels in straight lines to explain that objects



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<p>Autumn term. Must work with EYFS staff to construct.</p>	<p>environments may vary from one another Can talk about the changes that each seasons brings in relation to their environment: the clothes they wear, the weather and the plants</p>	<p>Can name and describe weather associated with the seasons and how day length varies</p>	<p>Can name and describe affects on plants/trees during each of the four seasons.</p>	<p>and that dark is the absence of light.</p> <p>Can notice that light is reflected from surfaces.</p> <p>Can recognise that light reflected from the sun can be dangerous and that there are ways to protect eyes.</p> <p>Can recognise that shadows are formed when the light is blocked by a solid object.</p> <p>Can find patterns in the way that shadows change.</p> <p>Can compare how things move on different surfaces.</p>	<p>something vibrating.</p> <p>Can recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Can find patterns between the pitch of a sound and features of the object that produced it.</p> <p>Can recognise that sounds get fainter as the distance from the sound sources increases.</p> <p>Can identify some appliances that run on electricity.</p> <p>Can construct a simple series circuit by identifying and</p>	<p>planets, relative to the sun.</p> <p>Can describe the movement of the Moon relative to the Earth.</p> <p>Can describe the Moon, Earth and Sun as approximately spherical bodies.</p> <p>Can use the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.</p> <p>Can explain the unsupported objects fall towards the Earth because of the force of gravity</p>	<p>are seen because they give out or reflect light into the eye.</p> <p>Can explain that we can see things because light travels from light sources to our eyes or from light sources to an object then to our eyes.</p> <p>Can use the idea that light travels in straight lines to explain that shows have the same shape as objects that have cast them.</p> <p>Can associate the brightness of a lamp or the volume of a buzzer with the number and voltage</p>
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				<p>Can notice that some forces need contact between two objects, but that magnetic forces can act at a distance.</p> <p>Can observe how magnets attract or repel each other and attract some materials and not others; describe magnets as having two poles.</p> <p>Can predict whether two magnets will attract or repel each other depending on which way their poles are facing.</p> <p>Can compare and group together a variety of everyday material on the basis of whether they are attracted to a</p>	<p>naming its main parts including cells, wires, bulbs, switches and buzzers.</p> <p>Can 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>Can recognise that a switch opens and closes a circuit and associate this with whether or not the lamp is lights in a simple series circuit.</p> <p>Can recognise some conductors and insulators and associate metals</p>	<p>acting between the Earth and the object.</p> <p>Can identify the effects of air resistance, water resistance and friction that act between moving surfaces.</p> <p>Can recognise that some mechanisms including gears, pulleys and levers allow a smaller force to have a greater effect.</p>	<p>of the cells used in the circuit.</p> <p>Can 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>Can used recognised symbols when representing simple circuits in a diagram.</p>
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Science Progression - Whole School

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