

# St John & St James' C of E Primary School

## Science Knowledge Progression Map



NB – Statements in *italics* appear in more than one theme.

	Biology				
	Plants	Animals	Humans	Living things and their habitats	Evolution and Inheritance
E Y F S	<ul style="list-style-type: none"> <li>Exploring the natural world around them, making observations by noticing changes and using multimedia to represent plants.</li> <li>Understand important changes in the natural world around them including the seasons.</li> <li>Understand important changes in the natural world around them including the seasons.</li> </ul>	<ul style="list-style-type: none"> <li>Exploring the natural world around them, making observations and using multimedia to represent animals.</li> <li>Understand important processes and changes of the natural world around them.</li> <li>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and using class key text to build on.</li> </ul>	<ul style="list-style-type: none"> <li>Explore the changes in body and recognise what is necessary to be healthy (foods, clothing, exercise, catch it bin it kill it).</li> <li>Understand the importance of dental hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>Describe their immediate environment using knowledge from observations, discussions, stories, non-fiction texts and maps.</li> <li>Exploring the natural world around them, making observations and drawing animals and plants.</li> <li>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and using class key text and nature walks.</li> </ul>	
Y e ar 1	<ul style="list-style-type: none"> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</li> </ul>	<ul style="list-style-type: none"> <li>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> </ul>	<ul style="list-style-type: none"> <li><i>Observe changes across the four seasons.</i></li> <li><i>Observe and describe weather associated with the seasons and how day length varies.</i></li> </ul>	

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Year 2	<ul style="list-style-type: none"> <li>Identify and name a variety of plants and animals in their habitats, including microhabitats.</li> <li>Observe and describe how seeds and bulbs grow into mature plants.</li> <li>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name a variety of plants and animals in their habitats, including microhabitats.</li> <li>Notice that animals, including humans, have offspring, which grow into adults.</li> <li>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</li> </ul>	<ul style="list-style-type: none"> <li>Notice that animals, including humans, have offspring, which grow into adults.</li> <li><i>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</i></li> <li>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.</li> <li><i>Identify and name a variety of plants and animals in their habitats, including microhabitats.</i></li> <li>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.</li> </ul>	
Year 3	<ul style="list-style-type: none"> <li>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</li> <li>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.</li> <li>Investigate the way in which water is transported within plants.</li> <li>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</i></li> </ul>		<ul style="list-style-type: none"> <li><i>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</i></li> </ul>

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Year 4	<ul style="list-style-type: none"> <li>• <i>Identify and describe the functions of different parts of flowering plants</i></li> <li>• <i>Describe the life process of reproduction in some plants and animals.</i></li> </ul>		<ul style="list-style-type: none"> <li>• Describe the simple functions of the basic parts of the digestive system in humans.</li> <li>• Identify the different types of teeth in humans and their simple functions.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Identify and describe the functions of different parts of flowering plants</i></li> <li>• <i>Describe the life process of reproduction in some plants and animals.</i></li> <li>• Recognise that living things can be grouped in a variety of ways.</li> <li>• Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li>• <i>Recognise that environments can change and that this can sometimes pose dangers to living thing.</i></li> <li>• Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>	
Year 5	<ul style="list-style-type: none"> <li>• <i>Describe the life process of reproduction in some plants and animals.</i></li> </ul>	<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>• <i>Describe the life process of reproduction in some plants and animals.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Describe the changes as humans develop to old age.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Describe the life process of reproduction in some plants and animals.</i></li> <li>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>• Study and raise questions about their local environment throughout the year e.g. about the life-cycles of various plants and animals from their local area</li> <li>• Research naturalists and animal behaviourists e.g. David Attenborough/ Jane Goodall</li> </ul>	

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Year 6	<ul style="list-style-type: none"><li>• <i>Classifying plants based on characteristics.</i></li><li>• <i>Describe the ways in which nutrients and water are transported within animals, including humans.</i></li></ul>	<ul style="list-style-type: none"><li>• Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</li><li>• Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</li><li>• <i>Describe the ways in which nutrients and water are transported within animals, including humans.</i></li></ul>		<ul style="list-style-type: none"><li>• Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</li><li>• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li><li>• Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</li></ul>
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