

# Year 2: : Living things and their habitats Our Learning Leaves Curriculum – Science

|                       | Required prior knowledge   | Knowledge to be explicitly taught   | How knowledge will be built upon   |
|-----------------------|--|---|--|
| Substantive knowledge | <p>Animals are different to plant because they move around rather than stay in the same place. Year 1</p> <p>Animals can be placed in different groups based on the food they eat. Year 1</p> <p>Animals have different features, including, including fins, wings, scales, legs, feathers, claws and paws. etc. Year 1</p> <p>Animals can be grouped into fish, amphibians, reptiles, birds, and mammals (name common examples) Year 1</p> <p>Add plants from Year 1</p> <p>Add Humans - senses</p> | <ul style="list-style-type: none"> <li>Everything in the world can be categorised as either <b>alive</b>, used to be alive or has never been alive.</li> <li>Living things are called <b>organisms</b>.</li> <li>Living things grow, need air and <b>nutrients</b>, react to their surroundings, move, get rid of their <b>waste</b>, <b>reproduce (MRS GREN)</b>.</li> <li>Animals move from place to place, while plants move on the spot.</li> <li><b>Habitats</b> are the places where living things live, a very small habitat is called a <b>micro-habitat</b>, these can be found in larger habitats.</li> <li>Animals and plants in a habitat depend on each other e.g. for food or shelter.</li> <li>Animals get their food from plants and other animals, this is food provides the <b>energy</b> animals need.</li> <li>Most plants produce their own food and are called <b>producers</b>.</li> <li>In a <b>food chain</b>, the arrows show where the energy is being transferred from and to.</li> <li>Living things are <b>adapted</b> to their <b>environment</b>. This means they may not be able to survive in other habitats.</li> <li>Some animals and plants have adapted to life in a <b>hot desert: camels and cacti</b>. Some animals and plants have adapted to life in a <b>cold desert: Arctic fox and shrubs</b>.</li> </ul> | <ul style="list-style-type: none"> <li>The names and functions of the different parts of flowering plants including the following: roots, stem/trunk, leaves and flowers. Year 3</li> <li>The 5 specific requirements for plant life: air, light, water, nutrients from soil and room to grow. Year 3</li> <li>Some plants can survive with different amounts of air, light, water, nutrients and room to grow depending on their specific needs. Year 3</li> <li>How water is transported in plants. Year 3</li> <li>The process of pollination and how seeds are formed. Year 3</li> <li>By making changes in our local environment, we may be able to either reduce the harm for living things or create an improved habitat for them. Year 4</li> <li>That living things can be grouped in a variety of ways. Year 4</li> <li>How to use and make classification keys to help group, identify and name a variety of living things in their local and wider environment.† Year 4</li> <li>To know how to construct and interpret a variety of food chains, identifying producers, predators and prey. Year 4</li> </ul> |

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| Disciplinary knowledge | <ul style="list-style-type: none"> <li>Scientists look for patterns in the world around them. Year 1</li> <li>Make simple statements about the results of an enquiry.</li> <li></li> </ul>  | <ul style="list-style-type: none"> <li>Examine microhabitats using a magnifying glass and counting the number and type of living organisms found in the area.</li> <li>Identify and name a variety of plants and animals in their habitats, including microhabitats</li> <li>Identifying and classifying - How would you group these plants and animals based on what habitat you would find them in?</li> <li>Find information from secondary sources</li> <li>Pattern seeking Which habitat do worms prefer – where can we find the most worms? What conditions do woodlice prefer to live in?</li> </ul> | Scientists look for patterns in data to try to identify correlations Year 5 |
| Key Drivers            | <p><b>Culture and Diversity</b> - which helps pupils to develop enquiring minds about the wider world –</p> <ul style="list-style-type: none"> <li>Different habitats around the world, How are animals and humans adapted for their environments.</li> <li>Scientists' values and beliefs are influenced by the larger culture in which they live. Such personal views can, in turn, influence. Expose the children to human diversity related to race, culture, ability, gender and relationship preferences.</li> <li>Scientists' values and beliefs are influenced by the larger culture in which they live. Such personal views can, in turn, influence the questions they choose to pursue and how they investigate those questions.</li> <li>Scientific activities are social activities, so scientific culture is the product of humans' or particular groups of humans' activities. The thinking patterns, values, behavioural norms and traditions of science formed in its history reflect its cultural connotation.</li> </ul> <p>e the questions they choose to pursue and how they investigate those questions.</p> <ul style="list-style-type: none"> <li><b>Environment and Community</b> - which helps to instil in our pupils a respect for our environment and for our local and wider communities – <u>ENRICHMENT – VISITS – COMMUNITY PUBLISHING ETC&gt;&gt;&gt; Climate change and habitats</u></li> <li>Climate change and habitats</li> <li>Eco School</li> <li>School community reminders</li> <li>RESPECT characters reminders</li> <li>Children to appreciate our communities values, similarities and our unique qualities that make us special.</li> </ul> <p><b>Creative arts and physical development</b> - which helps our pupils to express themselves and excel as holistic learners. – <u>IDEAS FOR EXTENTION AND FREEDOM TO APPLY IN C&amp;C</u></p> <ul style="list-style-type: none"> <li>Scientists have to use their imagination to come up with explanations, theories and predictions.</li> <li>Scientists have to use their prior and new knowledge to create links</li> </ul> <p><b>Learning to learn</b> - which helps pupils to concentrate and focus and build resilience as learners –<br/>           Pattern seeking, Identifying and classifying, Using secondary resources<br/>           Respect characters model learning behaviours to develop resilience and perserverance.<br/>           Respect characters model excellence in attitudes to learning.</p> |   |   |

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Opportunities given to allow the children to become independent learners.