

# Year R: : The Natural World Our Learning Leaves Curriculum – Science

	Required prior knowledge	Knowledge to be explicitly taught	How knowledge will be built upon
Substantive knowledge	<p><b>Seasons</b></p> <ul style="list-style-type: none"> <li>There are four <b>seasons: spring, summer, autumn and winter</b></li> <li>Children describe the weather as sunny, windy, rainy, snowy, cloudy &amp; foggy.</li> </ul> <p><b>Animals and Plants</b></p> <ul style="list-style-type: none"> <li>Notifies detailed features of objects in their environment.</li> <li>Names simple farm yard animals and jungle animals.</li> </ul>	<p><b>Seasons</b></p> <ul style="list-style-type: none"> <li>There are four <b>seasons: spring, summer, autumn and winter</b></li> <li>The <b>weather</b> changes gradually as we move from season to season</li> <li>The weather can change rapidly in one day (e.g. sunny morning and rainy afternoon)</li> <li>Recognise differences between four seasons in terms of living things (trees lose leaves; flowers drop and we see different animals, such as butterflies in the summer)</li> <li>Changing seasons have an effect on the natural world around them.</li> </ul> <p><b>Animals and plants</b></p> <ul style="list-style-type: none"> <li>Some environments differ from the one in which they live. Cold lands (such as the Arctic Tundra) are barren landscapes, glaciers and huge ice sheets, a hot land (such as a desert) has low rainfall, scanty vegetation and extreme temperatures and a wet land (such as a mangroves or sea grass beds) has soggy soils, water-loving plants and water. Rainforests are hot and wet and have very dense vegetation.</li> <li>The life cycle of a human, chicken, frog, butterfly, and bean.</li> <li>A place an animal lives is called its habitat. Animals have adapted to survive in their habitats in hot lands, cold lands, and wet lands.</li> </ul>	<ul style="list-style-type: none"> <li><b>Daytime</b> is when the <b>Earth</b> is facing the <b>Sun</b>; night time is when the Earth is facing away from the Sun</li> <li>In the <b>summer</b> that there are more hours of <b>daylight</b> and in <b>winter</b> there are fewer hours of daylight.</li> <li>In the summer, we face the sun for more of the day and so it is lighter/darker when we travel to school in summer/winter</li> <li>The <b>Moon</b> is more visible at night.</li> <li>Animals are different to plants because they move around, rather than stay in the same place</li> <li>Animals can be placed into different groups (<b>carnivores, herbivores, and omnivores</b>) based on the food they eat.</li> <li>Animals have different features, including fins, wings, scales, legs, feathers, claws and paws etc.</li> <li>Animals can be grouped into <b>fish, amphibians, reptiles, birds and mammals</b> (name common examples)</li> </ul>
Disciplinary knowledge	<p><b>Seasons</b></p> <ul style="list-style-type: none"> <li>Children talk about what they see, using a wide vocabulary</li> </ul> <p><b>Animals and plants</b></p> <ul style="list-style-type: none"> <li>Plant seeds and care for growing plants</li> <li>Respect and care for the natural world and all living things</li> </ul>	<p><b>Seasons</b></p> <ul style="list-style-type: none"> <li>Describe what they see, hear, feel whilst outside</li> <li>Gather information from texts/books/images</li> <li>Complete daily calendar</li> <li>Observe closely using scientific equipment</li> <li>Gathering and recording data to answer questions</li> </ul> <p><b>Animals and plants</b></p> <ul style="list-style-type: none"> <li>Observe closely using scientific equipment</li> <li>Gathering and recording data to answer questions.</li> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <li>Understand 'why' questions, make comments about what they have heard and ask questions to clarify their thinking.</li> </ul>	<ul style="list-style-type: none"> <li>Use information from images of four seasons to identify and record differences in wildlife and weather in four seasons.</li> <li>Record numerical or descriptive observations in a table</li> <li>Research different animals and use images and text to classify the animals as herbivores, carnivores, or omnivores, and based on their physical characteristics</li> <li>Research using secondary sources</li> <li>Identifying, classifying and grouping - Use a Venn diagram to classify items into two or three sets based on properties</li> </ul>
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>Children understand that different environments have different weather and so this affects their culture and community.</li> </ul> <p><b>Environment and Community</b> - which helps to instil in our pupils a respect for our environment and for our local and wider communities –</p> <ul style="list-style-type: none"> <li>Children experience and find out about the effects of climate change which broadens their understanding of the importance of caring for our world.</li> </ul> <p><b>Creative arts and physical development</b> - which helps our pupils to express themselves and excel as holistic learners. –</p> <ul style="list-style-type: none"> <li>Children immerse themselves in the feeling of the weather. They use their creative skills to express how the weather feels to them through drawing, painting and constructing. This allows them to think deeply, from a different perspective, about the environment and its weather.</li> </ul> <p><b>Learning to learn</b> - which helps pupils to concentrate and focus and build resilience as learners –</p> <ul style="list-style-type: none"> <li>Children are encouraged to ask questions to find out more and to check what has been said to them.</li> </ul>		