

Year 5 – Life Cycles (Animals Including Humans and Living Things)																			
Links made with other subjects	PHSE – Puberty																		
The BIG Question	Do all life cycles look the same?																		
The BIG Outcome	Piece of writing explaining the similarities and differences between human life cycles, plants, and animals which lay eggs																		
Science objectives (link to NC)	<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 reproduction in some plants and animals</li><li>- describe the changes as humans develop to old age</li></ul>																		
Prior knowledge What prior knowledge is needed for children to be successful in this unit?	<p><i>Children already know:</i></p> <p>EYFS – Understanding the world - Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.</p> <p>Yr 1 –<b>Animals Including Humans (Types and Parts of Animals)</b></p> <p>Yr 2 - <b>Animals Including Humans (Feeding &amp; Exercise and Living Things)</b></p> <p>Yr 3 - <b>Animals Including Humans (Movement and Feeding)</b></p> <p>Yr 4 - <b>Animals Including Humans (Human Nutrition)</b></p>																		
Future learning Consider the conceptual knowledge within a subject that pupils need for future learning not just the recall of facts but the importance of concepts	<p>This unit gives prior knowledge to:</p> <p>Yr 6 - <b>Animals Including Humans (Our Bodies and Evolution and Inheritance )</b></p>																		
Science strands	<p><u>Related Enquiry Questions</u></p> <table><tr><td><b>Classifying</b></td></tr><tr><td>- Classify animals according to their life cycle</td></tr><tr><td><b>Observing over time</b></td></tr><tr><td>-Grow from cuttings and observe whether they grow roots/stem/ leaf/flower.</td></tr><tr><td>-Grow from, and harvest, bulbs through the year. (Can be done in conjunction with Year 2.)</td></tr><tr><td>-Observe strawberry/spider plants through the year.</td></tr><tr><td><b>Pattern Seeking</b></td></tr><tr><td>Children generate questions such as:</td></tr><tr><td>-Do larger mammals have longer gestation periods?</td></tr><tr><td>-Do larger animals live longer?</td></tr><tr><td>-Do smaller animals lay more eggs?</td></tr><tr><td><b>Comparative testing</b></td></tr><tr><td>Not relevant</td></tr><tr><td><b>Researching</b></td></tr><tr><td>- Generate questions to research the life cycle of a chosen animal: mammal, amphibian, insect, bird e.g. dragon fly, cuckoo, salmon, worm, owl. (Children present what they’ve learned in different ways: create a model, write a song, write a story, create a PPT, etc.)</td></tr><tr><td>- Research how gardeners asexually reproduce plants.</td></tr><tr><td>-Develop questions to ask an expert e.g. a health visitor, doctor or nurse.</td></tr><tr><td>(Questions will need to be filtered by the teacher.)</td></tr></table>	<b>Classifying</b>	- Classify animals according to their life cycle	<b>Observing over time</b>	-Grow from cuttings and observe whether they grow roots/stem/ leaf/flower.	-Grow from, and harvest, bulbs through the year. (Can be done in conjunction with Year 2.)	-Observe strawberry/spider plants through the year.	<b>Pattern Seeking</b>	Children generate questions such as:	-Do larger mammals have longer gestation periods?	-Do larger animals live longer?	-Do smaller animals lay more eggs?	<b>Comparative testing</b>	Not relevant	<b>Researching</b>	- Generate questions to research the life cycle of a chosen animal: mammal, amphibian, insect, bird e.g. dragon fly, cuckoo, salmon, worm, owl. (Children present what they’ve learned in different ways: create a model, write a song, write a story, create a PPT, etc.)	- Research how gardeners asexually reproduce plants.	-Develop questions to ask an expert e.g. a health visitor, doctor or nurse.	(Questions will need to be filtered by the teacher.)
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## Science Scheme of Work

<b>Vocabulary/ Glossary</b>	Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings Puberty – the vocabulary to describe sexual characteristics
<b>Knowledge</b> (see italics for knowledge to remember)	<p>The knowledge that children will learn and remember:</p> <ol style="list-style-type: none"> <li><i>As part of their life cycle, plants and animals reproduce.</i></li> <li><i>Most animals reproduce sexually. This involves two parents where the sperm from the male fertilises the female egg.</i></li> <li><i>Animals, including humans, have offspring which grow into adults. In humans and some animals, these offspring will be born live, such as babies or kittens, and then grow into adults.</i></li> <li><i>In other animals, such as chickens or snakes, there may be eggs laid that hatch to young which then grow to adults.</i></li> <li><i>Some young undergo a further change before becoming adults e.g. caterpillars to butterflies. This is called a metamorphosis.</i></li> <li><i>Plants reproduce both sexually and asexually. Bulbs, tubers, runners and plantlets are examples of asexual plant reproduction which involves only one parent. Gardeners may force plants to reproduce asexually by taking cuttings.</i></li> <li><i>Sexual reproduction occurs through pollination, usually involving wind or insects.</i></li> <li><i>When babies are young, they grow rapidly. They are very dependent on their parents. As they develop, they learn many skills.</i></li> <li><i>At puberty, a child's body changes and develops primary and secondary sexual characteristics. This enables the adult to reproduce.</i></li> </ol>
<b>SEND expectations</b>	<ol style="list-style-type: none"> <li><i>As part of their life cycle, plants and animals reproduce.</i></li> <li><i>Most animals reproduce sexually. This involves two parents where the sperm from the male fertilises the female egg.</i></li> <li><i>Some Animals, including humans, have offspring which grow into adults.</i></li> <li><i>In other animals there may be eggs laid that hatch to young which then grow to adults. .</i></li> <li><i>Plants reproduce both sexually and asexually.</i></li> <li><i>When babies are young, they grow rapidly. They are very dependent on their parents.</i></li> <li><i>At puberty, a child's body changes and develops primary and secondary sexual characteristics.</i></li> </ol>
<b>Common Misconceptions</b>	<p>Some children may think:</p> <ul style="list-style-type: none"> <li>- a baby grows in a mother's tummy</li> <li>- a baby is "made".</li> </ul>