

# Science



<p><b>Upper Key Stage 2</b></p> <p><b>Year A Autumn Term</b></p>	<p>Big Picture Question: <b>Living things – Life cycles and reproduction in animals and plants</b></p> <p><b>Read, spell and pronounce correctly - vocabulary:</b>  <b>Scientific vocabulary:</b> group, compare, classify, classification, classification keys, describe, identify, explain,  <b>Topic-specific vocabulary:</b> Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings, pollination, fertilisation, anatomy of the flower, including the receptacle, sepals, nectaries, carpel, stigma, style, ovary, stamen and petals</p>	<p>Resources</p> <p>Children should study:</p> <p>Classification key (paper and online)</p> <p>Secondary sources – photos or video evidence of changes to environments</p> <p>Pictures of a variety of living things to classify</p>
<p><b>Science skills</b></p> <p>Developed through:</p> <ul style="list-style-type: none"> <li>Observing over time</li> <li>Identifying, grouping and classifying</li> <li>Pattern seeking</li> <li>Making and developing ideas</li> <li>Comparative and Fair Testing</li> <li>Researching using secondary sources</li> </ul>	<p>What we want children to <b>know:</b></p> <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 (pollination/fertilisation - anatomy of the flower, including the receptacle, sepals, nectaries, carpel, stigma, style, ovary, stamen and petals) and animals.</li> </ul> <p>Science skills to be developed:</p> <ul style="list-style-type: none"> <li>Use secondary sources and, where possible, first hand observations to find out about the life cycle of a range of animals</li> <li>Compare the gestation times for mammals and look for patterns e.g. in relation to size of animal or length of dependency after birth</li> <li>Look for patterns between the size of an animal and its expected life span</li> <li>Grow and observe plants that reproduce asexually e.g. strawberries, spider plant, potatoes</li> <li>Take cuttings from a range of plants e.g. African violet, mint</li> <li>Plant bulbs and then harvest to see how they multiply</li> <li>Use secondary sources to find out about pollination</li> <li>Use secondary sources to research the work of naturalists and animal behaviourists, for example, David Attenborough and Jane Goodall.</li> </ul> <p>Possible evidence:</p> <p><b>Shows understanding of a concept using scientific vocabulary correctly</b></p> <ul style="list-style-type: none"> <li>❖ Draw the life cycle of a range of animals identifying similarities and differences between the life cycles</li> <li>❖ Explain the difference between sexual and asexual reproduction and give examples of how plants reproduce in both ways</li> </ul> <p><b>Applying knowledge in familiar related contexts, including a range of enquiries</b></p> <ul style="list-style-type: none"> <li>❖ Present their understanding of the life cycle of a range of animals in different ways e.g. drama, pictorially, chronological reports, creating a game</li> <li>❖ Identify patterns in life cycles</li> <li>❖ Compare two or more animal life cycles studied</li> <li>❖ Explain how a range of plants reproduce asexually.</li> </ul>	<p>Secondary sources – photos or video evidence of changes to environments</p> <p>Pictures of a variety of living things to classify</p> <p><a href="https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-grouping-living-things/zfjxcqt">https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-grouping-living-things/zfjxcqt</a></p> <p><a href="https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-classifying-and-grouping-plants/zh9jvk7">https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-classifying-and-grouping-plants/zh9jvk7</a></p> <p><a href="https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-the-anatomy-of-the-flower/zjmhkmt">https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-the-anatomy-of-the-flower/zjmhkmt</a></p> <p><a href="https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-parts-of-a-plant/zvdkpg8">https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-parts-of-a-plant/zvdkpg8</a></p>