



**Year: 5**  
**Term: Summer**

# LIVING THINGS AND THEIR HABITATS

**Prior knowledge**

Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals, including humans)

Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)

<b>Key Knowledge</b>	
<b>Life Cycle</b>	A life cycle shows how things are born, how they grow and how they reproduce.
<b>Life Cycles of a mammal, insect, bird and amphibian</b>	
<b>Life cycle of a mammal</b>	<ul style="list-style-type: none"> <li>• Live young born</li> <li>• Grow from babies to adults</li> <li>• Reproduce</li> <li>• Live young born</li> </ul>
<b>Life cycle of an insect</b>	<ul style="list-style-type: none"> <li>• Egg</li> <li>• Growth to adult or transformation to adult</li> <li>• Reproduce</li> <li>• Egg</li> </ul>
<b>Life cycle of a bird</b>	<ul style="list-style-type: none"> <li>• Egg</li> <li>• Growth to adult</li> <li>• Reproduce</li> <li>• Egg</li> </ul>
<b>Life cycle of an amphibian</b>	<ul style="list-style-type: none"> <li>• Egg in water</li> <li>• Growth to adult</li> <li>• Reproduce</li> <li>• Eggs in water</li> </ul>
<b>Reproduction</b>	
<b>What is reproduction?</b>	Living things creating other living things. Animals have babies. Plants have seeds which turn into new plants.
<b>Reproduction in plants</b>	
<b>Sexual reproduction (Two parents)</b>	When the Pollen from one flower joins the Egg of the new flower and a seed or many seeds are formed. Example: Apple tree
<b>Asexual reproduction</b>	This is when a small part of a plant breaks off and it starts to grow until it is the same size as the plant it came from and this is repeated. (Flowers are not needed) Example: Spider plant.
<b>Reproduction in animals</b>	
<b>Usually sexual</b>	Reproduction in animals is most commonly sexual involving two parents. Sexual example: Lion Asexual example: Starfish
<b>Scientists we need to know about</b>	
<b>Sir David Attenborough</b>	<b>5 facts:</b> <ul style="list-style-type: none"> <li>• Born on the 8<sup>th</sup> May 1926</li> <li>• British</li> <li>• Famous wildlife film maker</li> <li>• Knighted in 1985</li> <li>• He is the only person to have won BAFTAs for programmes in each of black and white, colour, HD and 3D</li> </ul>
<b>Jane Goodall</b>	<b>5 facts:</b> <ul style="list-style-type: none"> <li>• Born on the 3<sup>rd</sup> April 1934</li> <li>• British</li> </ul>

- Considered to be the world's foremost expert on chimpanzees
- Studied chimpanzees for over 45 years in Gombre Stream National Park in Tanzania
- She is an author of a number of books

### Key Vocabulary

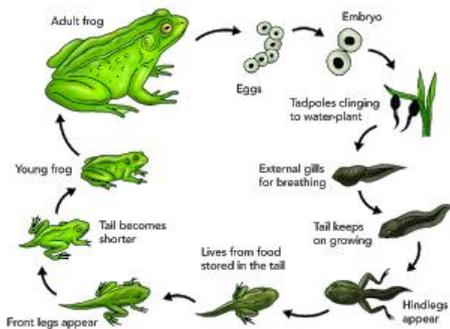
Prior vocabulary – habitat, microhabitat, nocturnal, adaptation, hunt, food chain, hibernate, conservation, growth, absorbent, birth, decay, reproduction, dead, life cycle, source, nutrients, environment, food chain, energy, movement, respiration, sensitivity, nutrition, excretion, reproduction, vertebrates, invertebrates, gills, fins, scales, lungs, kingdom, classify, algae, arachnid, mollusc, pollution

Working scientifically vocabulary – prediction, measurement, enquiry, dependent variable, independent variable, fair test, similar, theory, hypothesis, line graph, relationship, outlier

<b>Amphibian</b>	A cold-blooded vertebrate animal e.g. frogs, toads, newts
<b>Asexual reproduction</b>	The offspring gets their genes from one parent so they are clones of their parents
<b>Inherit</b>	Receive from parents
<b>Mammal</b>	A warm-blooded vertebrate animal that has hair or fur and gives birth to live young. Females secrete milk to their young.
<b>Reproduction</b>	The process by which a living organism creates a likeness to itself
<b>Sexual reproduction</b>	The offspring gets genes from both parents so they inherit a mix of features from both.

### Diagrams and Symbols

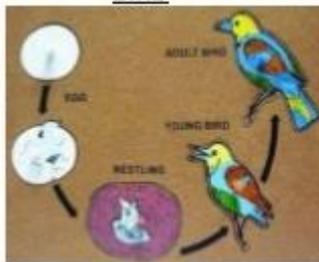
Detailed Life Cycle of an Amphibian (Frog)



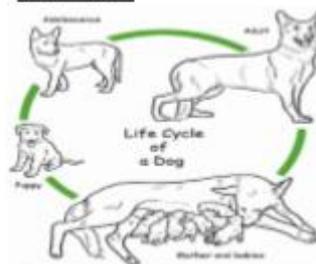
#### PLANT



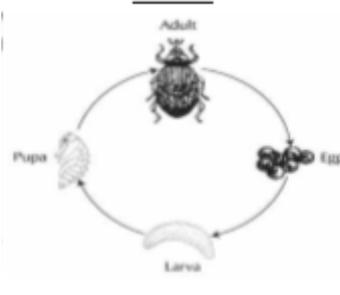
#### BIRD



#### MAMMAL



#### INSECT



<b>Key skills</b>	
<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 processes of reproduction in some plants and animals.</li> </ul>	
<b>Future Learning</b>	
<p>Reproduction in humans (as an example of a mammal), including the structure and function of the male and female reproductive systems, menstrual cycle (without details of hormones), gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta. (KS3)</p> <p>Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms. (KS3)</p>	
<p><b><u>Deepening and broadening the knowledge and understanding for GDS learners:</u></b></p> <ul style="list-style-type: none"> <li>• compares animals within one group, e.g. a variety of mammals – sheep, dolphin, elephant and human</li> <li>• explains why death is not usually included in a life cycle</li> <li>• knows that sexual reproduction produces new varieties of the organism whereas asexual reproduction produces an exact copy of the parent</li> <li>• is aware that DNA is the ‘building block’ of life</li> </ul>	<p><b><u>Key Outcomes</u></b></p> <p><b>1. How does a flowering plant reproduce?</b> <i>Children will dissect a flowering plant and name the parts and their functions in the process of reproduction, explaining asexual reproduction.</i></p> <p><b>2: How do living things in my local environment and around the world reproduce?</b> <i>Children will investigate explain and compare the life cycles of a mammal, an amphibian, an insect and a bird living in different environments.</i></p> <p><b>3: Does the size of the mammal affect its reproduction cycle?</b> <i>Children will e.g. observe and compare the life cycles of animals in our local environment with other animals around the world. They’ll record and report findings and comparison in tables and graphs.</i></p> <p><b>4: Can I research an important naturalist?</b> <i>Children will know the importance and impact of know the importance of naturalists such as Sylvia Earle, Rachel Carson and David Attenborough.</i></p> <p><b>5: How can I test one of their theories?</b> <i>Children gather existing scientific research and investigate how scientific understanding has changed and come up with a scientific enquiry to investigate to support scientific research.</i></p> <p><b>6: How can I report my findings in the most influential way?</b> <i>Children will use all of their knowledge from research, of reporting results and conclusions and decide the best way in which to present their findings as a scientist to influence others. e.g. in a speech like Attenborough.</i></p>