



**Topic: Living Things and their habitats**

**Year: 5**

**Strand: Biology**

**What should I already know?**

- recognise that living things can be grouped in a variety of ways
- explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- recognise that environments can change and that this can sometimes pose dangers to living things.

**What will I know by the end of the unit?**

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals

**Vocabulary**

Anther	The part of a stamen which produces pollen.
Chlorophyll	The green substance in a chloroplast which absorbs the light needed for photosynthesis.
Dispersal	The carrying or spreading of plant seeds by the wind, or by birds, animals, etc
Fertilisation	The fusion ( or joining together) of a male gamete (reproductive cell) and a female gamete to form a zygote.
Flower	The reproductive parts of a flowering plant, consisting of petals, sepals,ovary,style,stigma, stamen , anther etc.
Filament	Part of the stamen which holds up the anther.
Germination	The first stage in the growth of a seed or a spore.
Gestation	The development of a mammal between fertilisation of the egg and the birth of the young animal.
Life cycle	The complete pattern of life of an organism, including all its changes, from a certain stage in one generation to the same stage of the next generation.
Petal	Brightly coloured and scented to attract insects.
Photosynthesis	The process by which plants turn carbon dioxide and water into glucose and water by the action of light in the presence of chlorophyll.
Pollen	Tint grains produced in the anthers of a flower, and contain male gametes ( reproductive cells)
Pollination	Process in which the pollen is transferred to the stigma of the same or another flower.
Pupa or chrysalis	An insect at the stage between being a larva and a fully developed insect. At the pupa stage, the insect does not eat.
Sepal	Usually green, protects the bud.
Style	female part of the flower, joining the stigma to the ovary.







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Ovary	Contains ovules which are fertilised. After fertilisation, an ovary becomes a fruit.
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Key information	Key information
<p><b>Mammals</b> Mammals have a three stage life cycle: Stage 1 : The gestation period - the embryo grows inside the mother and is dependent on her. Stage 2: The young mammals grow and develop independence. Stage 3: Adults mate to reproduce.</p>  	<p><b>Birds</b> Birds have a three stage life cycle: Stage 1: Eggs laid by the female. Parents care for the egg until hatching. Stage 2: Female and male feed the bird until it is independent. Stage 3: Adults mate to reproduce.</p>  
<p><b>Amphibians eg frog</b> Many amphibians have a 5-stage life cycle: Stage 1: Female lay eggs , fertilized by male. Stage 2: Tadpole breathes in water through gills. Stage 3: Grows fins and develops lungs. Stage 4: Tadpole grows front legs. Jumps from water onto land. Stage 5: Starts to eat insects/plants.Takes 2-4 years to become an adult.</p>	<p><b>Plants</b> <u>Asexual reproduction:</u> involves plants producing an identical copy of themselves.This can happen naturally in a number of different ways. Some plants are able to produce bulbs( e.g. daffodils &amp; snowdrops). Others , like potatoes, produce tubers. While strawberries produce runners either under or above the soil. Or artificially by gardeners taking cuttings etc.</p> <p><b>Sexual production</b> in plants is cyclical, following this process: <u>Germination</u>- The plant begins to grow from a seed. Roots form under the soil and a stem, eaves and flower shots above the surface. <u>Pollination</u> - Pollen produced by the flower is carried by insects or blown by the wind to another flower. <u>Fertilisation</u> - The pollen reaches another flower and fertilises the ovary. <u>Dispersal</u> - The seeds are scattered by various means e.g. animals, wind, water, explosions.</p>
<p><b>Insects</b> Most insects undergo metamorphosis and have a life cycle of 4 stages: Stage 1: Eggs laid by female insect. Stage 2: Eggs hatch into larvae.g. caterpillars, maggots, grubs Stage 3: The pupa (hard coating) is formed. Inside this the larva transforms. Stage 4: The adults break out of the puppa and mature.</p>	

**Useful Websites**

<https://www.bbc.co.uk/bitesize/clips/zt96sg8>, <https://www.bbc.co.uk/bitesize/topics/zgssgk7> ,



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