

Goonhavern Primary School- Science

TOPIC: Living Things and their Habitats

YEAR: 5

STRAND: Biology

What should I know already?	What will I know by the end of the unit?	
<ul style="list-style-type: none"> Animals can be grouped into vertebrates (and then further into fish, reptiles, amphibians, birds and mammals) and invertebrates. Some examples of life cycles (including those of plants and humans). The processes of dispersal, fertilisation and germination. Reproduction is one of the seven life processes. Parts of a plant, their features and what their functions are. 	<p>What is Reproduction?</p>	<p>Reproduction is when an animal or plant produces one or more individuals similar to itself:</p> <p>Sexual reproduction:</p> <ul style="list-style-type: none"> requires two parents with male and female gametes (cells) will produce offspring that is similar to but not identical to the parent <p>Asexual reproduction:</p> <ul style="list-style-type: none"> will produce offspring that is identical to the parent requires only one parent
	<p>How do plants reproduce?</p>	<ul style="list-style-type: none"> Male gametes can be found in the pollen. Female gametes can be found in the ovary (they are called ovules). Pollination occurs when pollen from the anther is transferred to the stigma by bees and other insects. The pollen then travels down and meets the ovule. When this happens, seeds are formed - this is called fertilisation. Seeds are then dispersed so that germination can begin again. Some plants, such as daffodils and potatoes, can also produce offspring using asexual reproduction
	<p>What are examples of life cycles?</p>	<ul style="list-style-type: none"> The life cycles of mammals, birds, amphibians and insects have similarities and differences. One difference is that amphibians and insects go through the process of metamorphosis. This is when the structure of their bodies changes significantly as they grow (for example, from tadpole to frog or caterpillar to butterfly).

Vocabulary

Anther

The part of a stamen that produces and releases the pollen.

Cell

The smallest part of an animal or plant that is able to function independently.

Dispersed	Scattered, seperated or spread through a large area.
Embryo	An unborn animal or human being in the very early stages of development.
Fertilisation	Male and female gametes meet to form an embryo or seed.
Gamete	The name for the two types of male and female cells that join together to make a new creature.
Germination	If a seed germinates or if it is germinated, it starts to grow.
Life cycle	The series of changes that an animal or plant passes through from the beginning of life until its death.
Pollen	A fine powder produced by flowers.
Pollination	To fertilise with pollen. This is often done by insects.
Reproduction	When an animal or human produces one or more individuals similar to itself.
Stigma	The top of the centre part of a flower which takes in pollen.
Structure	The way something is made or built up.

Investigate!

- Dissect a flower and identify the different parts of it. Label the different parts and explain their functions.
- Grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs.
- Compare the life cycles of mammals, amphibians, insects and birds. What is similar about their life cycles? What is different?
- Observe life cycle changes in a variety of living things, for example, plants in the vegetable garden or flower border, and animals in the local environment.
- Compare the life cycles of plants and animals in the local environment with other plants and animals (in the rainforest, in the oceans, in desert areas and in prehistoric times), asking pertinent questions and suggesting reasons for similarities and differences.
- Observe changes in an animal over a period of time (for example, by hatching and rearing chicks), comparing how different animals reproduce and grow.

