



## Living things and their habitats

### In this unit, the children will learn about...

- Differences in the life cycles of a mammal, a bird, an amphibian and an insect
- How animals reproduce
- Conditions needed for seed germination
- Seed dispersal

Reproduction is when an animal or plant produces one or more individuals like itself. Sexual reproduction requires two parents with male and female cells. Sexual reproduction will produce offspring that is like but not identical to the parent. Asexual reproduction will produce offspring that is identical to the parent. It needs only one parent.

Male cells can be found in the pollen. Female cells can be found in the ovary (they are called ovules). Pollination happens 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 (spread) so that germination can begin again.

Some plants, such as daffodils and potatoes, can also produce offspring using asexual reproduction. It needs only one parent.

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).

### Key vocabulary:

<b>fertilisation</b>	Male and female parts meet to form a seed.
<b>germination</b>	If a seed germinates, it starts to grow.
<b>pollination</b>	To pollinate a plant or tree means to fertilise it with pollen. This is often done by insects.
<b>reproduction</b>	When an animal or plant produces one or more individuals like itself.
<b>anther</b>	The part of a stamen that produces and releases the pollen.
<b>stigma</b>	The top of the centre part of a flower which takes in pollen.
<b>metamorphosis</b>	A person or thing develops and changes into something completely different.
<b>ovary</b>	A female organ which produces eggs.
<b>pollen</b>	A fine powder produced by flowers. It fertilises other flowers of the same species so that they produce seeds.

### Working scientifically

In this topic we develop the following practical skills:

- ✓ Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- ✓ Using test results to make predictions to set up further comparative and fair tests.
- ✓ Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

### Investigations:

- Dissect (carefully cut up) a flower and label key parts.
- Find the best conditions for growing a plant (germination).

### Inspirational Scientist

Eva Crane- Bee behaviour scientist

