

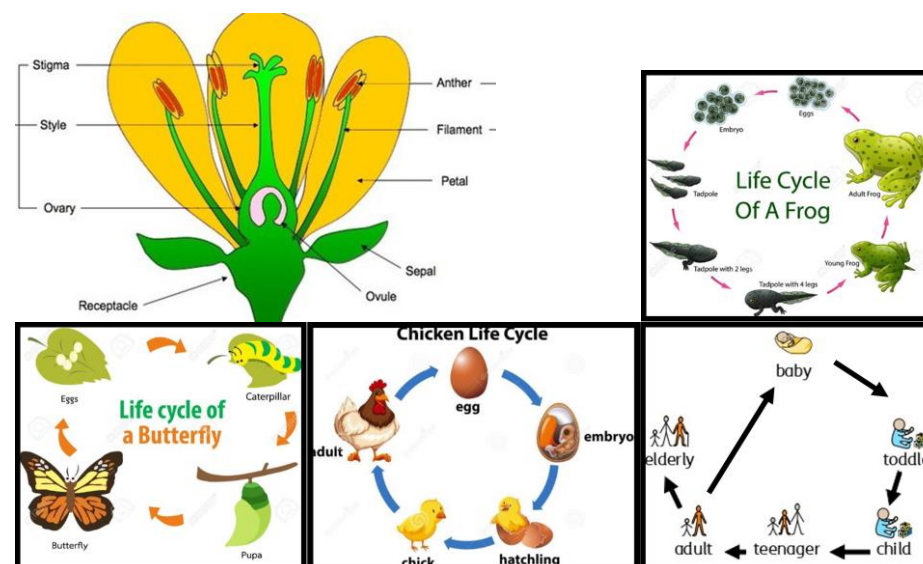
## Science - Year 5 - autumn 2 - Living Things and Their Habitats

Vocabulary	Meaning
<b>anther</b>	The part of a <b>stamen</b> that produces and releases the <b>pollen</b> .
<b>bulb</b>	A root shaped like an onion that grows into a <b>flower</b> or <b>plant</b> .
<b>cell</b>	The smallest part of an animal or plant.
<b>dispersed</b>	Scattered, separated, or spread through a large area.
<b>dissect</b>	To carefully cut something up in order to examine it scientifically.
<b>embryo</b>	An unborn animal in the very early stages of development.
<b>fertilisation</b>	Male and female <b>gametes</b> meet to form an <b>embryo</b> or <b>seed</b> .
<b>gamete</b>	The name for the two types of male and female <b>cell</b> .
<b>germination</b>	If a <b>seed</b> <b>germinates</b> or if it is <b>germinated</b> , it starts to grow.
<b>life cycle</b>	The series of changes that an animal or <b>plant</b> passes through.
<b>metamorphosis</b>	A something develops and changes into something different.
<b>ovary</b>	A female organ which produces eggs.
<b>ovule</b>	A tiny egg.
<b>pollen</b>	A fine powder produced by flowers. It fertilises other flowers.
<b>pollination</b>	To <b>fertilise</b> it with <b>pollen</b> . This is often done by insects.
<b>reproduction</b>	When an animal or plant produces individuals similar to itself.
<b>seed</b>	The small part from which a plant grows.
<b>stigma</b>	The top of the centre part of flower which receives the pollen.
<b>structure</b>	The way in which something is built.

### Skills

- To observe and compare the life cycles of animals in our local environment with other animals around the world.
- To describe the process of asexual reproduction in plants.
- To describe the process of asexual reproduction in plants.
- To find out about the work of work of naturalists.

### Knowledge



## What I should be able to do and know now.

### Knowledge

- 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)
- 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.

### Skills

I can classify animals into vertebrates and invertebrates

I know one life cycle of a living thing, and create a diagram to support my knowledge.

I can describe the process of reproduction for plants

I can label the parts of a plant.

## Growth Mindset Strategies

Understand the difference between a  
FIXED mindset and a GROWTH mindset.

Be Curious; Be courageous.

Challenge yourself.

Give everything your best effort and persevere.

**Practice; Practice; Practice.**

## What I will be learning

- 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.
- Research the work of Jane Goodall.

## What I will know and be able to do at the end of the topic.

### Knowledge

#### What is reproduction?

Reproduction is when an animal or plant produces one or more individuals similar to itself:

- Sexual reproduction: requires two parents with male and female gametes (cells) will produce offspring that is similar to but not identical to the parent
- Asexual reproduction: will produce offspring that is identical to the parent requires only one parent.

#### How do plants reproduce?

- 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

#### What are examples of life cycles?

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).

### Skills

I can classify animals, insects and amphibians

I can describe how pollination is effected by weather seasons

I can describe the difference between sexual and asexual reproduction