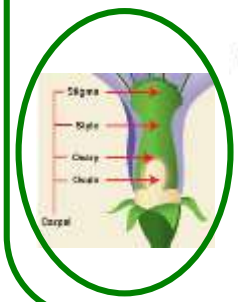
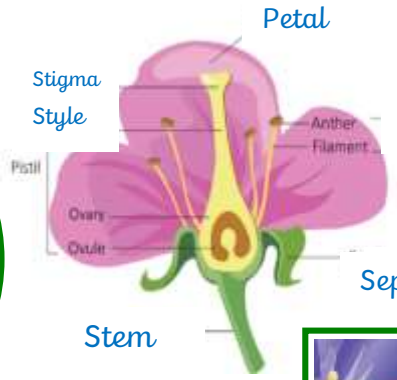
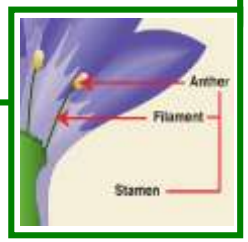
Knowledge Organiser – Life cycles of Living things - Plants (Year 5)

Parts of a flowering plant

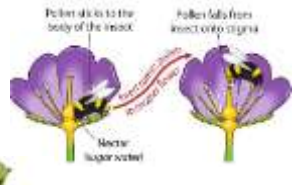






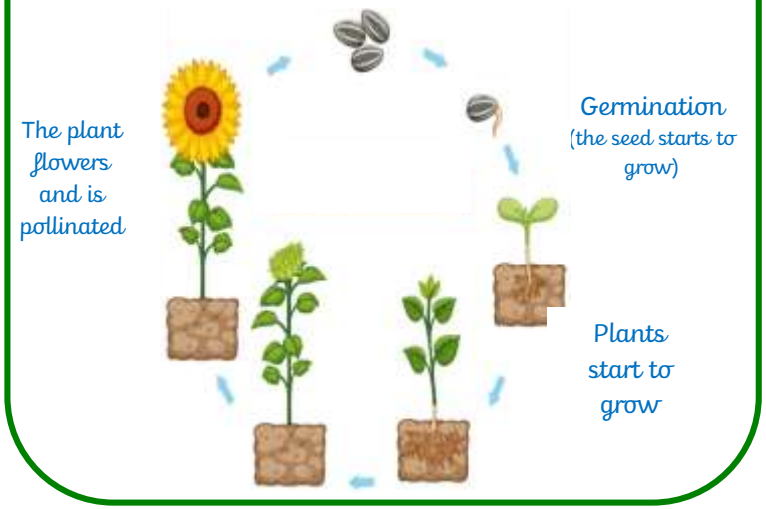
Pollination and Germination

Pollination takes place when pollen is moved from the male anther of a flower to the female stigma.



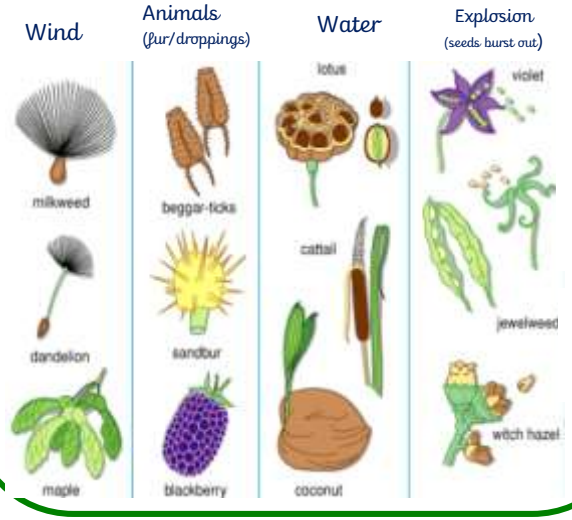
Germination is when seeds start to grow.

Life cycle of a flowering plant



How seeds are dispersed

Seeds can be dispersed in different ways



Key vocabulary - Plants

carpel – The female parts of the flower. Made of the stigma, style and ovary. The job of the style is to hold up the stigma. The stigma collects the pollen when a pollinator brushes by it. The ovary contains the ovules, which are the part of the flower that is fertilised and eventually becomes the new seed.

fertilisation – When the male and female parts of the flower have mixed in order to make seeds for new plants.

life cycle – A life cycle is the different stages of a living thing.

seed dispersal – A method of moving the seeds away from the parent plant, so that the seeds have the best chance of survival.

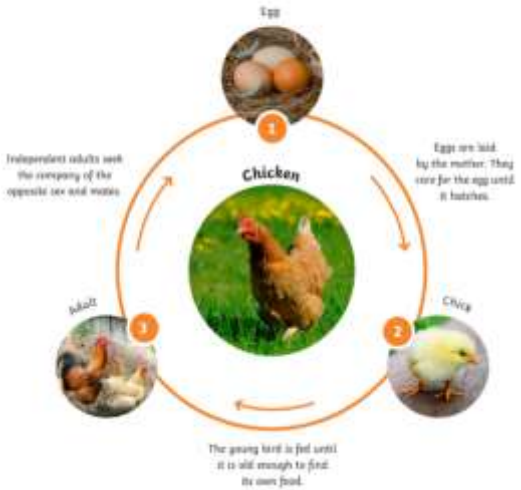
sepal – Leaf-like structures that protect the flowers before they open out.

stamen – The stamen is made up of the anther and the filament. The filament's job is is to hold up the anther. The job of the anther is to make pollen.
The stamen is the male parts of the flower.

Knowledge Organiser – Life cycles of Living things - Animals (Year 5)

All animals, including humans, are born; they get older and bigger and some will go on to have children. In the end, all animals die. We call this a life cycle.

The Bird Life Cycle

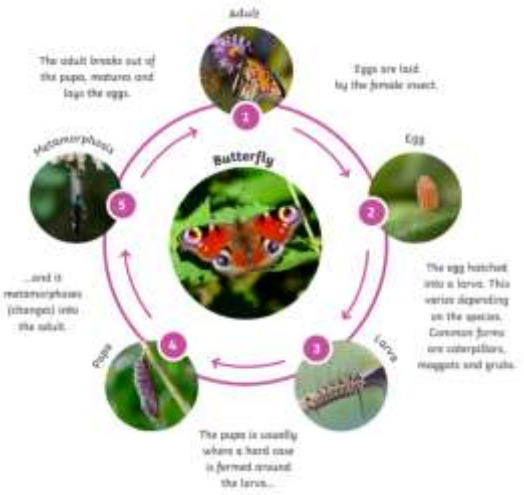


The Amphibian Life Cycle

The Mammal Cycle

The Insect Life Cycle

Complete Metamorphosis



Key Vocabulary

Toddler - the period when a young child starts to walk and become more independent.

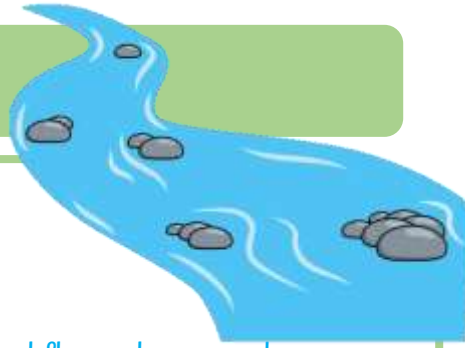
Teenager - humans between the age of 13 and 19. It is a time that humans mature quite rapidly.

Puberty - the name for the time when your body begins to develop and change as you move from childhood to adult.

Metamorphosis - a process some animals go through to become adults. It is a series of physical changes. Metamorphosis is especially common in insects.

Gestation – the period of time that a mammal carries her offspring, or babies, inside her body before giving birth.

Knowledge Organiser – Rivers (Year 5)



Key Vocabulary

Bank – The **bank** is the margin or side of a river.

Condensation – **Condensation** consists of small drops of water which form when warm water vapour or steam touches a cold surface such as a window.

Current – A **current** is a steady and continuous flowing movement of some of the water in a river, lake or sea.

Delta – **Delta** is an area of deposition found at the mouth of the river that is triangular in shape and hence named after the Greek letter.

Erosion – **Erosion** is the process of wearing away and removal of material mainly in the river channel and along the bank.

Estuary – **An estuary** is a drowned river valley, where the river flows into the sea.

The Course of a River

Upper Course

Rain falling on high ground collects in channels and flows downwards forming a stream. As it flows quickly downhill it joins other streams, increasing in size and speed, forming a river. In its upper course, a river is shallow and narrow. It can erode soil and rock, often producing waterfalls and gorges. At this stage the river can cut deeper into the riverbed forming a V-shaped valley.

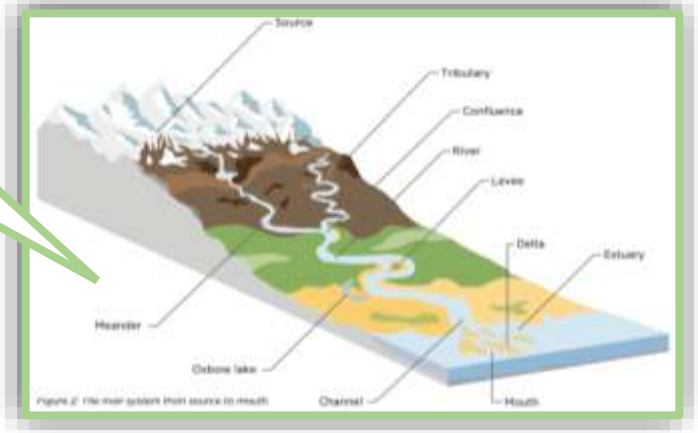
Middle Course

In the middle course, the river has more energy and a high volume of water. The erosion has now widened the channel and the river has deepened. At this section the river with meander and overtime oxbow lakes will form.

Lower Course

In the lower course, the river gets wider, deeper and faster but flows with less force due to the flat land. During this stage, the river becomes more prone to flooding and within urban areas some defences may be put up. This section will have floodplains, deltas and estuaries and the river ends.

A river's course from the source to the mouth.



Over 10% of the UK's freshwater and wetland species are threatened with extinction.

Key Vocabulary

Evaporation — **Evaporation** is when a liquid changes to a vapor, caused by an increase in temperature and/or a decrease in pressure.

Floodplains — **Floodplains** are the flat area bordering a river, composed of sediment deposited during flooding.

Gorge — A **gorge** is a narrow steep-sided valley caused by a waterfall eroding backwards, e.g. Niagara or by a powerful vertical erosion sometimes combined with uplifting landscapes, e.g. Grand Canyon.

Meander — A **meander** is a bend or loop in the river – usually in the middle or lower course.

Mouth — The **mouth** is where a river enters the river or a lake, the river flow slows, loses its energy and often deposition occurs.

Source — The **source** is the starting point of a river, the source of the highest tributary.

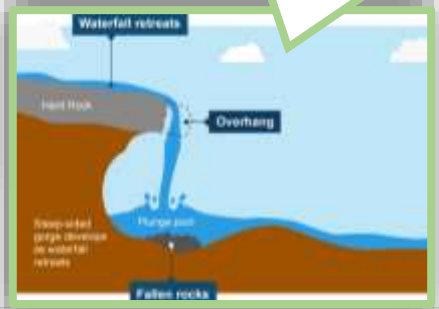
Tributary — **Tributaries** are small river or streams, which flow into a larger river.

Niagara Falls

- The Niagara Falls are located on the border of Ontario, Canada and New York, USA.
- It's made up of three waterfalls; the American Falls, the Bridal Veil Falls (smallest) and the Horseshoe Falls (largest).
- Together they combine to produce the highest flow rate of any waterfall on Earth.
- The Niagara River drains water from Lake Erie into Lake Ontario.
- At the current state of erosion, scientists believe that the Niagara Falls will be gone in around 50,000 years.
- The Falls are visited by around 30 million people every year.

Waterfalls

Formation of a waterfall:
The soft rock erodes more quickly, undercutting the hard rock.
The hard rock is left overhanding and so collapses.
The fallen rock crashes into a plunge pool causing more erosion.



Boscastle (2004)

On 16th August 2004, 75mm of rain fell in just 2 hours – this is the same amount which normally falls throughout the whole of August.
After 2 billion litres of water flowed in the rivers Valency and Jordan, they burst their banks.
The water quickly travelled through the village of Boscastle – gushing into houses, shops and pubs.
The water eroded river banks, damaged gardens and pavements.