

Science Knowledge Organiser

Autumn 1

Living Things & their Habitats

Life processes

There are seven things that all living things do. These are called **life processes**.

'MRS GREN' will help you remember!

Movement
Respiration
Sensitivity

Growth
Reproduction
Excretion
Nutrition



Mrs Gren

All living **things** move.
All living things take in **gas** and release gas. Being able to **hear, see, smell, feel and taste**.

To get **larger** or **taller**.
Having **offspring**.
Getting rid of **waste** products.
Consuming **food** for energy.

The five animal groups



Mammals

Hair on body
Mother produces milk for offspring



Reptiles

Scaly skin
Born on land
Cold-blooded



Amphibians

Born in the water
As they grow older, they develop lungs so they can live on land.



Birds

All have feathers
Most can fly and have wings.



Fish

Live in water
Have fins and scales
Use gills to take in gas

Reproduction in animals

Reproduction is the process in which living things create offspring (children or babies). Offspring will have DNA from their parents and have similar characteristics.

Mammals

A mammals **offspring** grows **inside** the mother's womb.
The mother provides nutrients and oxygen to the foetus (unborn baby).
When a mammal carries a foetus **it is pregnant**.

In order to **create a baby**, two mammal parents (a male and a female) are needed. A male **sex cell**, called a **sperm**, fertilises the female sex cell, called an **egg**.



Birds and Reptiles

Birds and reptiles **lay eggs**.
The shell **protects** the baby and when it is ready they will break out of **the shell**.
Baby birds will be **looked after** by their mothers, whereas adult reptiles **do not look after** their **babies**.



Amphibians and fish

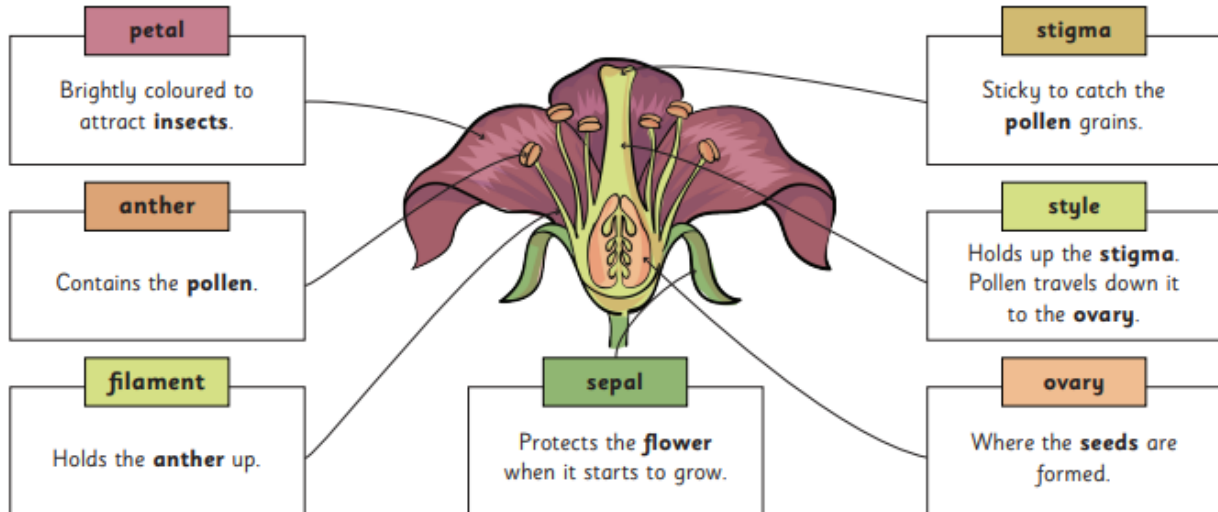
Fish and most amphibians also **lay eggs** but in water.
Eggs laid by amphibians are **called spawn**. Fish lay **hundreds of eggs** and when they hatch they look **after themselves**.



Reproduction in plants

The Flower

The flower's main job is to create new **seeds to grow new plants**. There are lots of **different parts** of the flower.



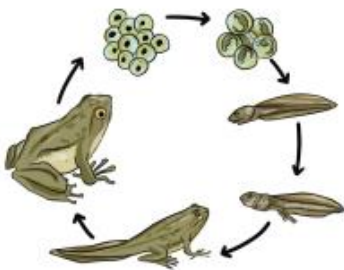
Pollination and seed dispersal

Pollination is when **pollen** from the anther is **transferred to the stigma**. This can happen **by wind** or **by a pollinator** such as **a bee** or **a butterfly**. Once the pollen is transferred to the stigma, it travels down the style to the **ovary** where the seed grows. Seeds are then dispersed and will grow in **different places**. Seeds can be dispersed by exploding plants, wind, water or animals.

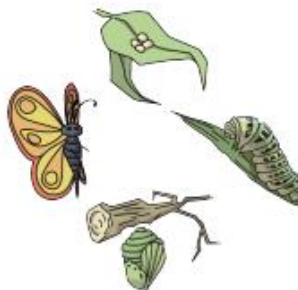
Life Cycles?

All plants and animals have a **life cycle** but they are different depending on the type of **animal or plant**. Here are some examples:

Frog life cycle



Butterfly life cycle



Dandelion life cycle



Human life cycle



Strawberry life cycle

