

## Key Facts

### Life processes

There are 7 things that all living things do. These are called **life processes**.

'MRS GREN' will help you remember!

**M**ovement  
**R**espiration  
**S**ensitivity  
**G**rowth  
**R**eproduction  
**E**xcretion  
**N**utrition



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 5 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

When mammals have offspring, it grows inside the mother's womb. The mother provides nutrients and oxygen to the foetus (unborn baby). When a mammal carries a foetus they are pregnant.



Dog and puppy.

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 they are ready they will break out of the shell.

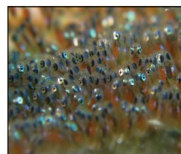


Baby birds will be looked after by their mothers, whereas adult reptiles do not look after their babies.

### 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.



# Year 5 Science Summer 1 Lifecycles

## Science Focus: Biology



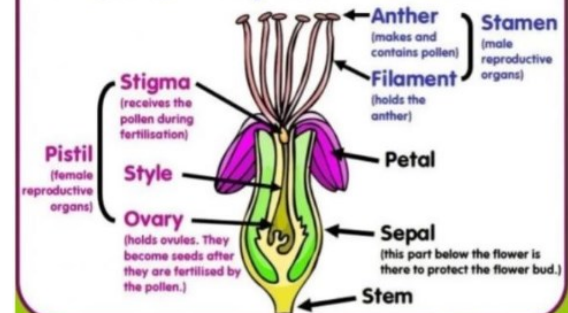
Asexual reproduction in a strawberry plant

Some plants, such as strawberry plants, potatoes, spider plants and daffodils use asexual reproduction to create a new plant.

## Vocabulary

Word	Definition
Life cycle	Series of changes in the life of an organism.
Amphibian	A cold-blooded vertebrate that spends some time on <b>land</b> but must breed and develop into an adult in water.
Cold blooded	Animals having blood whose temperature changes with the temperature of the air or water.
Migrate	(of an animal, typically a bird or fish) move from one region or habitat to another according to the seasons.
Warm blooded	Animals having a body temperature that remains steady and <i>warm</i> , no matter what the outside temperature is.
Mammal	A warm-blooded vertebrate animal, distinguished by hair or fur and give birth to live young.
Metamorphosis	The process by which the young form of insects and some animals, such as frogs, develops into the adult form.
Sexual reproduction	When offspring is produced from the fusion of a male and female cell..
Reproduction	The production of offspring.
Perfect flowers	Perfect flowers have both male parts and female parts inside of them.

## Parts of a Flower



## Knowledge and Understanding:

### Children will learn:

- In this module children build on earlier work from Key Stage 1 and from Year 3, where they learned about the life cycles of plants.
- They extend their understanding of what a life cycle is, and learn about the life cycles of some familiar (and some less familiar) mammals, amphibians, insects and birds.
- Children compare and contrast different life cycles, identifying common features as well as explaining key differences.
- They use their knowledge of life cycles to help them as they create a fantastical creature of their own, complete with its own distinct life cycle.
- They learn about incredible journeys that some animals undertake to complete their life cycles, and about the different ways in which humans are supporting some endangered animals to increase their population numbers.

## Key Questions

How can we describe the life cycle of mammals?

How can we describe the life cycle of amphibians?

How can we describe the life cycle of insects?

How can we describe the life cycle of birds?

## Key skills and concepts:

### Children will be able to:

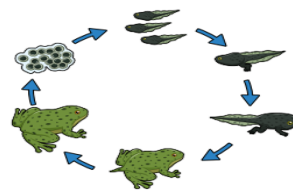
When working scientifically during this module, children frequently use secondary sources of information, as they carry out their own investigations to answer a variety of science questions, with increasing independence. This should involve the use of quality non-fiction books, web-based material etc and might include a visit to a local zoo.

Children report and present findings from their enquiries in a variety of ways, both orally and in written forms, drawing conclusions, identifying causal relationships and explaining their thinking. They consider evidence that has been used to support arguments, for example, as they learn about the work that has been done to protect the future of endangered animals.

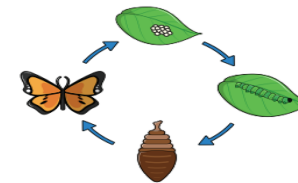
### Life cycles

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

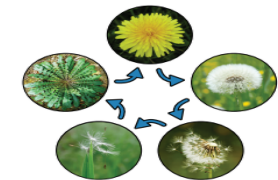
#### Frog life cycle



#### Butterfly life cycle



#### Dandelion life cycle



#### Human life cycle



#### Strawberry life cycle

