

Life cycles

Life Cycle A life cycle shows how things are born, how they grow and how they produce
All animals, including humans, are born, they get older and bigger and some will go on to have children. We call this a life cycle.

Life cycles of a mammal, insect, bird and an amphibian

Life cycle of a mammal

- Live young born
- Grow from babies to adults
- Reproduce
- Live young born



Life cycle of an insect

- Egg
- Growth to adult or metamorphosis to adult
- Reproduce
- Egg



Life cycle of a bird

- Egg
- Growth to adult
- Reproduce
- Egg



Life cycle of an amphibian

- Egg in water
- Growth to adult
- Reproduce
- Egg In water



Life cycle of mammals and birds

Similarities

- 3 main stages
- First stage is where embryo forms and grows
 - Second stage is where young is supported by parents.
 - Third stage is adult stage where reproduction takes place.

Differences

- Mammals give birth to live young
- Birds lay eggs
- Mammal usually nursed by mother
- Young birds usually fed by adult male and female.

Amphibians

The lifecycle of a frog involves 5 main stages



The tadpole grows fins and a stronger tail. Then it develops lungs and hind legs.

The female lays mass of eggs which are fertilised by the male.

The tail disappears and it starts to eat insects instead of plants. It takes 2-4 years to become an **adult frog**, when it can lay eggs.

The tadpole grows front legs and tail shortens. Uses nutrients in tail as food. It jumps out of water onto land.

After 2-25 days the **tadpole** hatches from the egg. It swims and eats plants. It breathes through gills.

Amphibians:

- live in water and on land
- moist slimy skin
- lays eggs
- babies different from adults



Key Vocab

1	Metamorphosis	A process some animals go through to become adults. It is a series of physical changes
2	Amphibian	Cold-blooded vertebrate animals (e.g. frogs) that have gills and live in water as larvae but breathe air as adults
3	Gestation	The period of time that a mammal carries her offspring, or babies, inside her body before giving birth
4	Embryo	An animal or a plant in its earliest stage of development
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Mammals

The lifecycle of a mammal involves 3 main stages



Independent adult usually seeks company from the opposite sex and mates. Adult female nurses their young.

Mammals:

- have hair or fur
- warm-blooded
- feed babies milk
- give live birth



Young: Main period of growth and developing independence from the parents.



Gestation: Embryo growing inside the mother, where it is completely reliant upon the mother.



Reproduction

What is reproduction?
 Living things create other living things
 Animals have babies
 Plants have seeds which turn into new plants

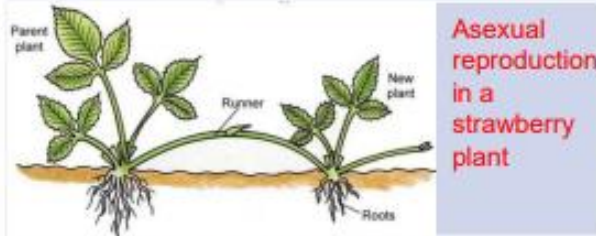
Reproduction in Plants

Sexual reproduction (2 parents)

- When the pollen from one flower joins the egg and of the new flower and a seed or many seeds are formed

Asexual reproduction (1 parent)

- This is when a small part of a plant breaks off and it starts to grow until it is the same size as the plant that it came from and this is repeated (flowers are now needed)



Reproduction in Animals

Usually sexual

- Reproduction in animals is most commonly involving 2 parents



Insects

Most insects undergo complete metamorphosis. This involves 4 main stages

The adult breaks out of the pupa and matures.

The **pupa** is formed when the larva moults for the last time. Pupa have a hard protective coating and are often camouflaged. The larva transforms completely inside the pupa.

Eggs are laid by the female insect.

The eggs hatch into **larva**. The larva look nothing like the adult. This varies depending on species. Common forms are caterpillars, maggots, grubs.

Insects:

- hatch from eggs
- some look like parents and shed skin as grow
- some go through metamorphosis young and adult are different.

David Attenborough

David Attenborough is a British wildlife film-maker and naturalist. This means he is a scientist who studies animals and their behaviour.

He has written and presented many popular documentaries about animals and their lives. After Attenborough's series 'Life on Earth' was broadcast in 1979, he went on to write and make many other series. These include over 250 episodes of 'Wildlife on One', 'The Natural World', 'Life in the Freezer' and 'Planet Earth'.

Jane Goodall

Jane Goodall is a British scientist who has studied chimpanzees for many years. She is considered to be the world expert on chimpanzees and their behaviour.

In 1960, Goodall was appointed as a chimpanzee researcher in what is now called Tanzania in Africa, to observe the chimpanzee troop living there.

She used unusual methods, such as giving the chimpanzees names. At that time, scientists working with animals would use numbers to identify the animals, so they didn't get too attached. Goodall's methods allowed her to observe the chimpanzees' personalities and emotions.

She found that the chimpanzees had strong family bonds that would last for the whole of the chimpanzees' lives. She observed family members hugging, kissing, patting each other on the back, and even tickling each other.