

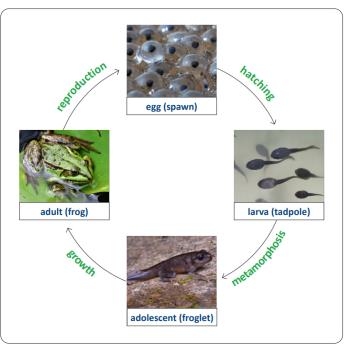
# <u>Science</u> <u>Human Reproduction & Ageing - Lent 1</u>

# Human Reproduction and Ageing

Reproduction is the process of producing offspring, which is vital for the survival of all plant and animal species. All living things go through a series of changes during their life cycle, where they grow, mature, reproduce and age. As living things age, they gradually decline and then die

### <u>Life cycles</u>

A life cycle is a series of changes that happen to a living thing during its lifespan. The events happen in a set order as the animal or plant grows and develops. A life cycle is presented on a circular diagram to show the main developmental stages of a plant or animal's life and the processes between these stages. All living things eventually die, but reproduction starts the life cycle again.



Life cycle of the common frog.

#### <u>Mammals</u>

Mammals are a group of vertebrate animals, which means they have a backbone. Mammals have several characteristics that make them different from other vertebrates. These include: producing milk to feed their young, being warm blooded, giving birth to live young, having fur or hair and breathing air with lungs







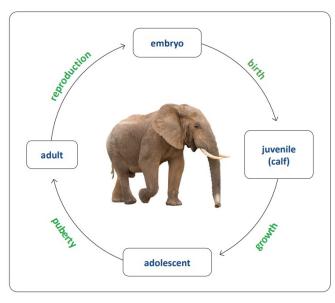
brown bear

Bengal tiger

human

### <u>Mammalian life cycle</u>

There are four stages and four processes in the mammalian life cycle.



The length of each stage varies for different animals. For example, the European hamster has a 2–3 week juvenile stage, but the same stage is 10 years for an African elephant.

#### Human life cycle

The human life cycle has the same stages and processes as other mammalian life cycles.

# <u>Embryo</u>

The embryo stage takes around 40 weeks. This is called the gestation period.

#### Juvenile

During the juvenile stage, the child grows and develops rapidly until around 12 years old.

# Adolescent

The adolescent stage ends at around 19 years old. The process of puberty enables an adolescent to develop into an adult and be able to reproduce.

# Adult

A person is a fully developed adult at around 20 years old and may choose to reproduce, which starts a new human life cycle.









# Glossary

# Life cycle

The series of changes in the life of an organism including reproduction.

#### Reproduce

Produce offspring by a sexual or asexual process.





# Mammals

A warm-blooded vertebrate animal of a class that is distinguished by the possession of hair or fur, females that secrete milk for the nourishment of the young, and (typically) the birth of live young.

# Vertebrates

An animal of a large group distinguished by the possession of a backbone or spinal column, including mammals, birds, reptiles, amphibians, and fish.

# Invertebrates

An animal lacking a backbone, such as an arthropod or mollusc.

# Adult

A person who is fully grown or developed.

# Embryo

An unborn or unhatched offspring in the process of development

# Adolescent

The adolescent stage ends at around 19 years old. The process of puberty enables an adolescent to develop into an adult and be able to reproduce