

Knowledge Organiser

Year 5
Living things and their habitats

VOCABULARY

Life cycle- course of events that brings a new living thing into existence.

Fertilises- to develop a new individual by introducing the male sperm to the female egg

Reproduce- produce offspring by a sexual and asexual process

Sexual reproduction- method of producing plants and animals in which male sperm and a female egg join

Asexual reproduction- method of producing new offspring with a single parent.

Sperm- male reproductive cell.

Egg- female reproductive cell.

Live young- when animals give birth to live offspring (do not lay eggs)

Metamorphosis- to process of transformation from an immature form to an adult

Gestation- the time it takes for a baby to develop inside the mother's body.

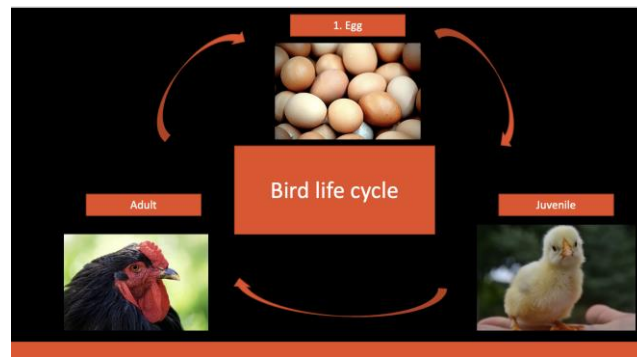
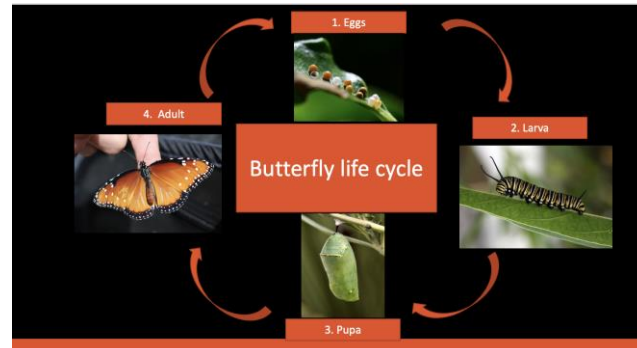
Runners- a stem that grows horizontally along the ground to produce clone plants

Bulbs- a underground food storage organ present in some plants which helps it to lie dormant over winter

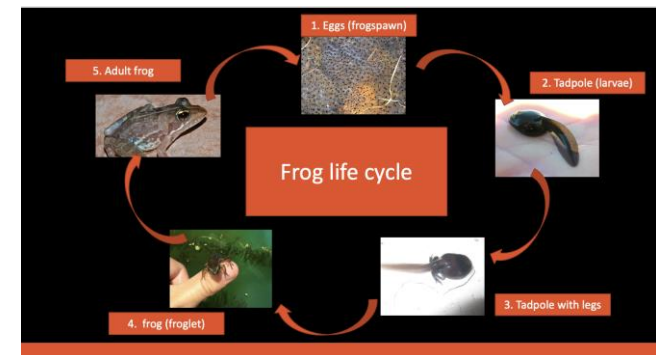
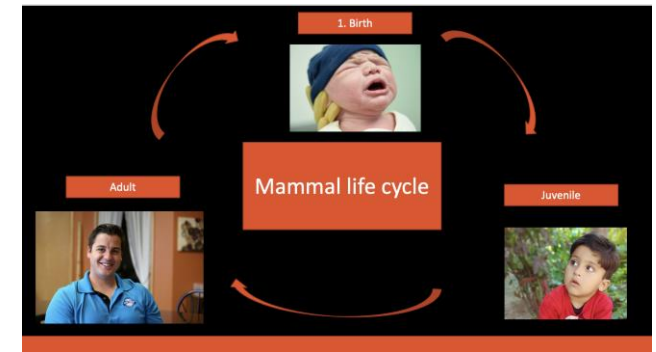
Cuttings- a piece of plant which is used for vegetative propagation

Plantlets- a young or small plant

Animal reproduction and life cycles



A life cycle is **the different stages of life for a living thing**. All animals, including humans, have a life cycle as all animals are born, grow, reproduce and die. In science, it's usually displayed as a circular diagram showing each stage in



Science Capital (Scientists)

Jane Goodall

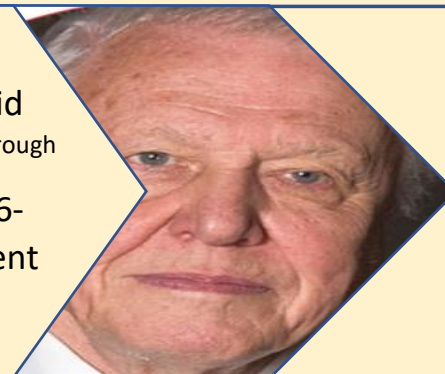
1934-present



English conservationist whose ground-breaking research on chimpanzees has shaped our understanding of what it is to be human.

David Attenborough

1926-present



English broadcaster and naturalist. Best known for his educational tv programmes.



Sexual reproduction in plants

Fertilisation

After pollen has landed on the stigma it grows a pollen tube to the ovary.

The diagram shows a cross-section of a flower. Labels include: Petal, Anther, Filament, Sepal, Ovary, Stigma, Style, Ovule (egg), Pistil, Receptacle, and Peduncle. A red arrow points to the stigma where pollen is landing. A blue arrow points from this stage to the next.

Fertilisation

The pollen grain travels down the pollen tube and fertilises the ovule.

The diagram shows the pollen tube from the previous stage now reaching the ovule. A red arrow points to the pollen tube. A blue arrow points from this stage to the final stage.

Fertilisation

The fertilised ovule develops into a seed. The seed contains the plant embryo which contains genetic materials from both parents. The ovary develops into fruit.

The diagram shows the final stage of fertilisation. A red arrow points to the ovule. The ovary is now shown as a fruit containing a seed. Labels include: Petal, Anther, Filament, Sepal, Ovary, Stigma, Style, Ovule (egg), Pistil, Receptacle, and Peduncle.

Asexual reproduction in plants

Bulbs

Short underground stem that contains stored food. New bulbs sprout from old bulbs.



garlic



onion



daffodil

Tubers

Vegetables that grow underground such as a potato with buds from which new plants grow.



potato



Jerusalem artichoke



buds

Runners

A stem that grows horizontally along the ground called a stolon which produce new clone plants.

Strawberry plant



Plantlets

A plantlet is a small plant. Many plants such as spider plants naturally create stolons with plantlets on the end which are clones of the parent plant.

stolon



Spores

Spores are produced on the underside of a fern leaf and are how they reproduce. They look like little dots and may be harvested for fern spore propagation.

spores

