



Y5 Science Knowledge Organiser—Life Cycles



Key Knowledge

Learn these key facts—key points in red

All living things go through these 7 life processes

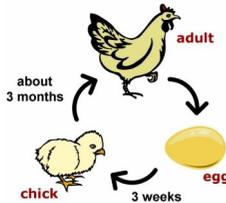
Movement
Respiration
Sensitivity
Growth
Reproduction
Excretion
Nutrition

Characteristics of living things

MRS GREN

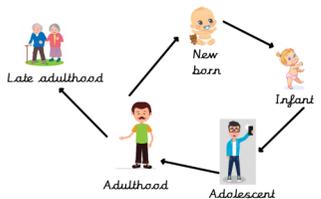


Chickens, like all birds, lay eggs. Inside an egg that has been fertilised, a chick will grow and eventually hatch.



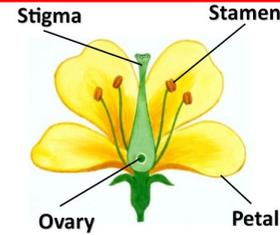
A similarity of female birds, mammals most reptiles and some species of fish is that their eggs are fertilised inside the female.

Mammal life cycle



Sexual reproduction of a plant

- The **stamen** is the male part of the flower which holds pollen
- The **carpel** is the female part of the flower which contains eggs.
- Pollen travels from the anthers of one flower to the stigma of another plant. This is called **pollination**. Plants rely on bees or other insects to carry their pollen while some pollen floats in the wind.
- After pollination, the **pollen grain** and the **egg** join together, **fertilisation**.
- The **fertilised egg** will develop into a **seed**.



Asexual reproduction of a plant

Plant cuttings: Some plants **stems** can grow roots if they are planted in the correct conditions, such as geraniums. This allows for people to make lots of copies of the same plant.

Runners: Some plants, like strawberry plants, **grow runners** which have new plants on the end. These plants are an exact copy of the parent plant from which they have grown.

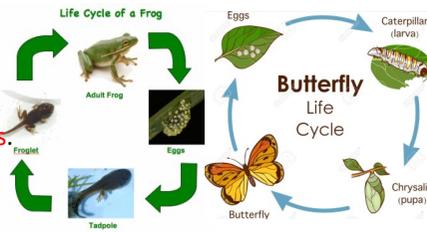
Bulbs: Other plants (onions, daffodils, garlic and tulips) **produce bulbs** which will grow if they are planted. The **bulbs form under the soil**. This helps the plant to survive during the winter months.

Key Vocabulary

Understand these key words

Word	Definition
behaviourist	someone who studies animal behaviour: how they learn from their environment, rather than emotions or feelings.
naturalist	an expert in, or a student of, natural history.
seed dispersal	it is the way seeds get from the parent plant to a new place.
stigma	the stigma is the area where pollen is received.
stamen	the stamen is the part of the flower that produces pollen. There are two main parts of the stamen: the filament and anther.
life processes	there are seven life processes that every living thing has in common.
asexual reproduction	offspring obtain all of their information from just one individual (one parent).
pollination	the transference of pollen to a flower, or plant to allow fertilisation. Happens in sexual reproduction
life cycles	the series of changes that an animal or plant goes through from the beginning to the end of its life.
root	the part of a plant which attaches it to the ground. It transfers water and nutrients to the rest of the plant.
germination	the development of a plant from a seed or spore after a period of dormancy.

Frogs start off life as a mass of eggs called **frogspawn**. The eggs then hatch into **tadpoles**. They then gradually grow a **set of back legs, and front legs**. They **lose their gills, and their tail shrinks**.



Both animals go through **metamorphosis**.

A butterfly starts its life as an **egg**, which hatches into a **caterpillar**. Eventually, the caterpillar **forms a chrysalis**. Inside the chrysalis, it **undergoes metamorphosis**, before emerging as an **adult butterfly**.



Focus Scientists



Jane Goodall, a **behaviourist**, is best known for her 60 year research on social interactions of wild chimpanzees.



Sir David Attenborough, a **naturalist**, who has dedicated his life to the study of natural history.