



Year 5

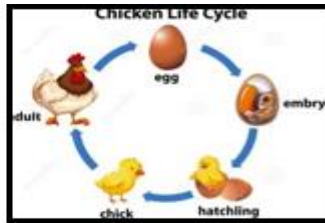
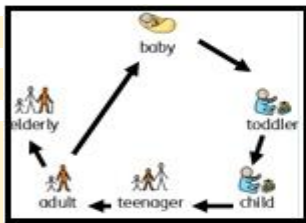
Topic: Living things and their habitats
Strand: Biology

What I should already know.

- Animals can be grouped into **vertebrates** (and then further into fish, reptiles, amphibians, birds and mammals) and **invertebrates**.
- Some examples of **life cycles** (including those of **plants** and humans).
- The processes of **dispersal**, **fertilisation** and **germination**.
- Reproduction** is one of the seven life processes.
- Parts of a **plant**, their features and what their **functions** are.
- The word **metamorphic** means 'a change of form' (in the context of rocks).

Diagram - What are examples of life cycles?

- The **life cycles** of mammals, birds, amphibians and insects have similarities and differences.
- One difference is that **amphibians and insects go through the process of metamorphosis**. This is when the structure of their bodies changes significantly as they grow (for example, from tadpole to frog or caterpillar to butterfly).



Vocabulary

Anther	The part of a stamen that produces and releases the pollen.
Bulb	A root shaped like an onion that grows into a flower or plant .
Cell	The smallest part of an animal or plant that is able to function independently.
Dispersed	Scattered, separated, or spread through a large area.
Dissect	To carefully cut something up in order to examine it scientifically.
Embryo	An unborn animal or human being in the very early stages of development.
Fertilisation	Male and female gametes meet to form an embryo or seed .
Flower	The part of a plant which is often brightly coloured and grows at the end of a stem .
Flowering	Trees or plants which produce flowers .
Function	A useful thing that something does.
Gamete	The name for the two types of male and female cell that join together to make a new creature.
Germination	If a seed germinates or if it is germinated , it starts to grow.
Life cycle	The series of changes that an animal or plant passes through from the beginning of its life until its death.
Mature	When something matures , it is fully developed.
Metamorphosis	A person or thing develops and changes into something completely different.
Ovary	A female organ which produces eggs.
Ovule	A small egg.
Petal	Thin coloured or white parts which form part of the flower .
Plant	A living thing that grows in the earth and has a stem , leaves , and roots .
Pollen	A fine powder produced by flowers . It fertilises other flowers of the same species so that they produce seeds .

What will I know by the end of the unit?

What is reproduction?

- Reproduction** is when an animal or plant produces one or more individuals similar to itself.
- Sexual **reproduction**: requires two parents with **male and female gametes (cells)** will produce **offspring** that is similar to but not identical to the parent.
- Asexual **reproduction**: will produce **offspring** that is identical to the parent requires only one.

How do plants reproduce?

- Male **gametes** can be found in the **pollen**.
- Female **gametes** can be found in the **ovary** (they are called **ovules**).
- Pollination** occurs when **pollen** from the **anther** is transferred to the **stigma** by bees and other insects.
- The **pollen** then travels down and meets the **ovule**. When this happens, **seeds** are formed - this is called **fertilisation**.
- Seeds** are then **dispersed** so that **germination** can begin again.
- Some **plants**, such as daffodils and potatoes, can also produce **offspring** using asexual **reproduction**.

