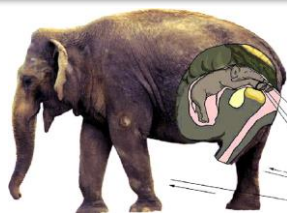


**Prior Knowledge / Key Knowledge**

Year 3: explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Year 4: recognise that living things can be grouped in a variety of ways explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment

- Humans, animals and plants are living things.
- Living things have a life cycle.
- Humans and some animals grow inside a womb. Some animals lay eggs.
- Living things need food, water and air to grow and live.



Plants are living things and can reproduce by pollination (by wind blowing seeds or insects carrying and dropping them). Plant reproduction is the production of new offspring in plants, which can be accomplished by sexual or asexual reproduction.

There are three groups that animals are categorised in. These three groups are monotremes, marsupials and placentals.

A life cycle means the stages a living thing goes through during its life, this can vary depending on the species. Some stages are slow and continuous. Some animals change, some lay eggs and some give birth. This is all dependent on the living thing and what category it is in.

An incomplete metamorphosis is a type of metamorphosis in which an insect hatches from an egg and then goes through several nymphal stages. At the final nymphal stage the insect then moults into the adult form. The adult form is often only distinguishable from the nymph by size and the presence of wings.

A butterfly's life cycle has four stages of life. All butterflies have complete metamorphosis. To grow into an adult, they go through 4 stages: egg, larva, pupa and adult.

Ideas for Science Enquiry**Observations:**

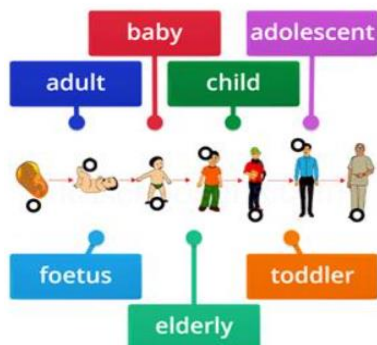
- Observing and identifying the differences stages of caterpillars every two days.

Classifying and Grouping:

- Sorting parts of plants into male and female parts.

Modelling:

- Modelling ways in which seeds can be dispersed.

**Vocabulary**

Asexual reproduction	Offspring get genes from one parent so are clones of their parents
Embryo	an unborn or unhatched offspring in the process of development
Fertilisation	Fertilisation is the fusion of the nucleus of a male gamete with the nucleus of a female gamete, producing a new cell called a zygote
Fetus	an unborn or unhatched offspring of a mammal, in particular an unborn human more than eight weeks
Gestation	Gestation is the period of time between conception and birth.
Incomplete Metamorphosis	A type of metamorphosis in which the pupal stage is lacking and the adult insect has the same general body plan as the immature form.
Life Cycle	The series of changes in the life of an organism including reproduction
Mammal	A warm-blooded vertebrate animal, distinguishable by the possession of hair or fur, females secreting milk for young and typically giving birth to live young
Marsupial	Mammals who are born incompletely developed and are typically carried and suckled in a pouch on the mother's belly.
Metamorphosis	The process of transformation from an immature form to an adult form in two or more distinct stages
Monotreme	Egg laying mammals
Pollination	the transfer of pollen to a stigma, ovule, flower, or plant to allow fertilization.
Reproduce	produce offspring by a sexual or asexual process.

Big Questions / Challenging Perceptions

What type of seed dispersal will allow a seed to grow promptly?