

Science Knowledge Organiser

Year 5

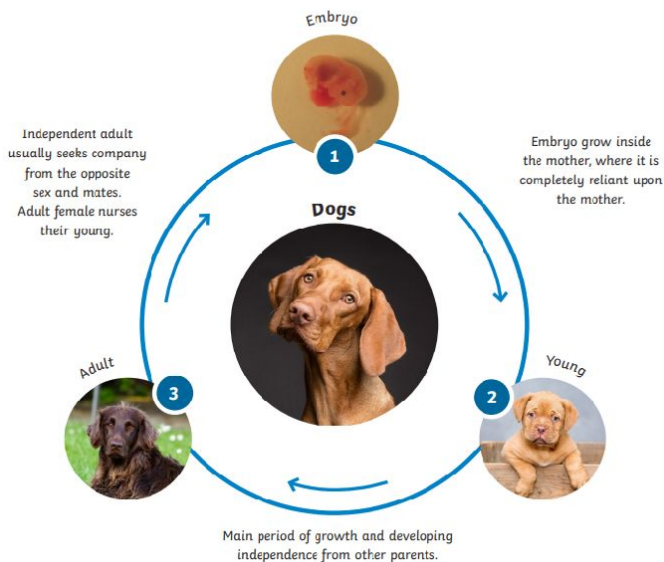
Summer (ii)

What are the life processes of reproduction in some plants and animals?

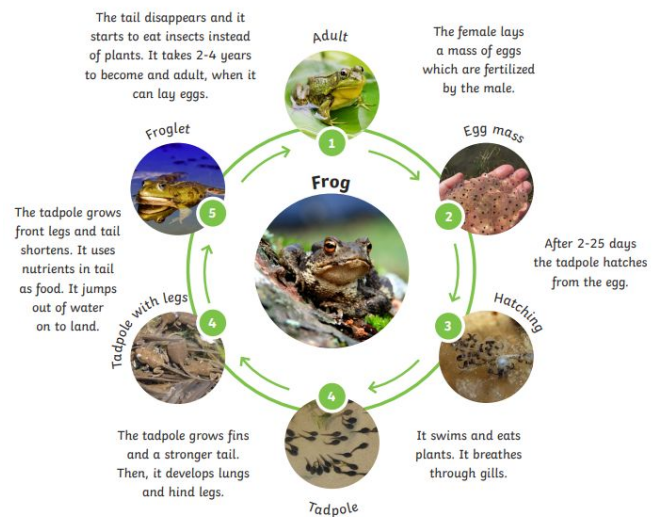
Portable Knowledge- Plants and animals can reproduce in different ways. Plants and some microorganisms reproduce asexually- by themselves- and do not need a second plant or animal.

To know the commonalities and differences between the life cycles of different animals

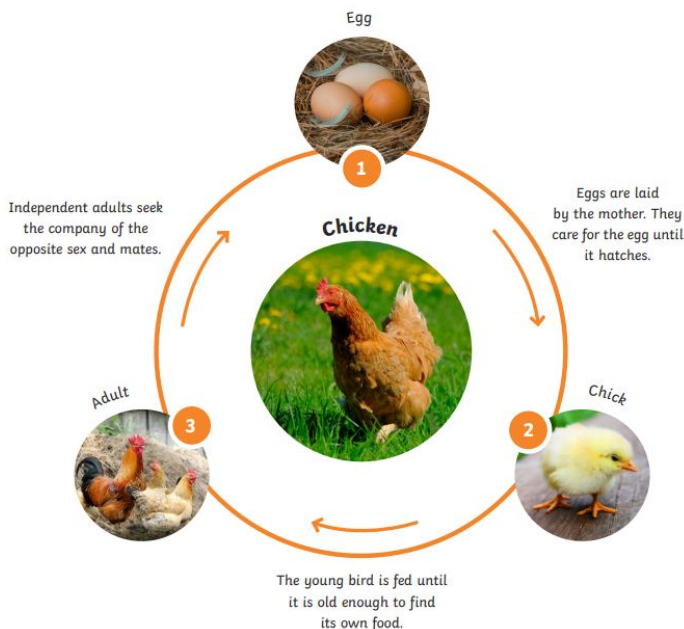
The Mammal Cycle



The Amphibian Life Cycle

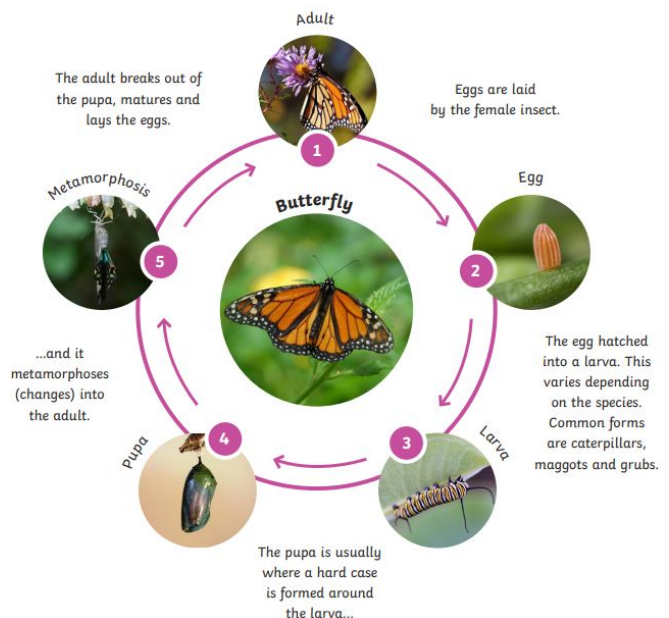


The Bird Life Cycle



The Insect Life Cycle

Complete Metamorphosis



To know the life processes and reproduction in some animals and plants

Life processes are the series of actions that are essential to determine if an animal is alive. There are seven essential processes in common:

M - Movement → All living things move, even plants

R - Respiration → Getting energy from food

S - Sensitivity → Detecting changes in the surroundings

G - Growth → All living things grow

R - Reproduction → Making more living things of the same type

E - Excretion → Getting rid of waste

N - Nutrition → Taking in and using food

Reproduction

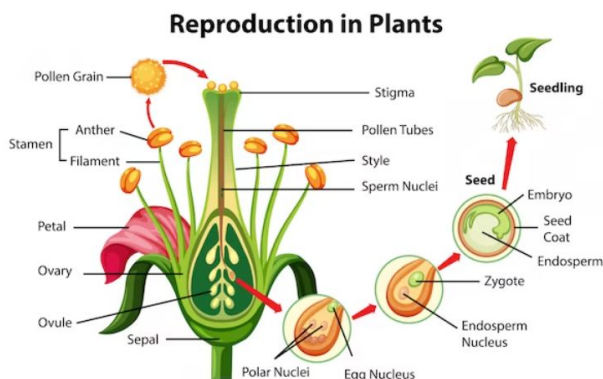
Living things do this so that they will not become extinct.

Animals have babies from:

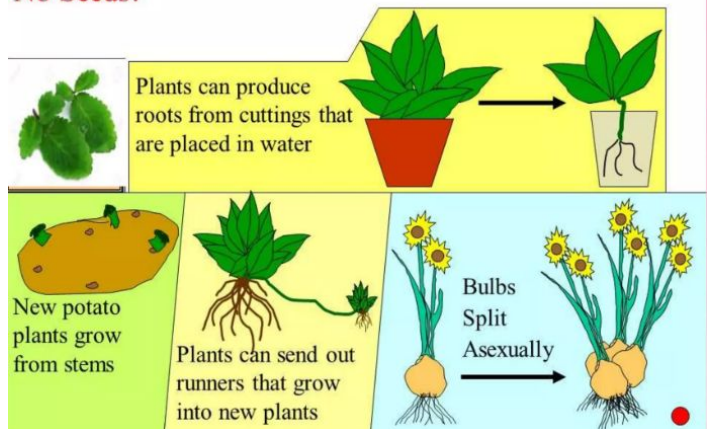
- giving birth
- laying eggs
- asexual reproduction (e.g. Hydra jelly fish sprout babies like buds growing from parent's body).

Baby animals can resemble mini adults or some will undergo partial/complete metamorphosis.

Plants also have examples of sexual and asexual reproduction



No Seeds!



In flowering plants, the male and female gametes come together to create a seed, from which a new plant will grow.

Asexual Reproduction in Plants

Involves only one parent,
Does not involve seeds or the fusion of gametes
Instead part of a plant's stem, leaves or roots can become new plants,
Produces offspring / clones genetically identical to the parent,
Allows plants to be produced much faster than sexual reproduction.

Core vocabulary

asexual reproduction- requires only one parent and creates offspring that are genetically identical to the parent.

sexual reproduction- fertilisation of a female gamete by a male gamete. Because two different individuals contribute to create a new being, the offspring will be similar to both parents but will never be genetically identical to either one

tuber - the thickened part of an underground stem of a plant with buds from which new plant shoots (stems and young leaves of a new plant) grow