

## Knowledge Organiser, Science T6: Reproduction in animals and plants

How do different plants reproduce? How do flowers, pollinators and seeds help in reproduction?

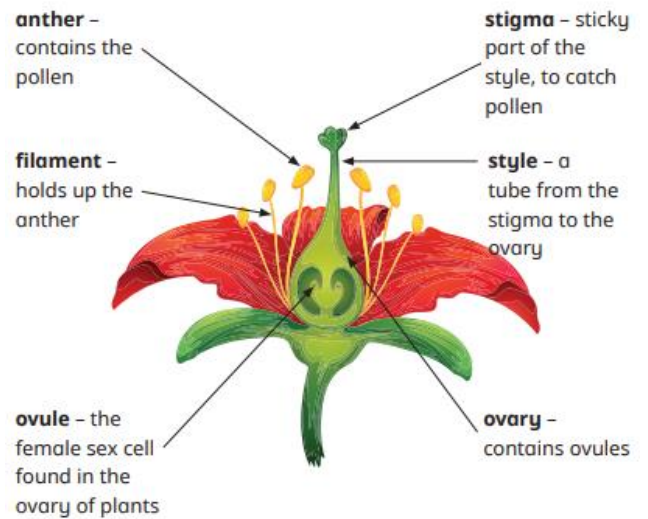
How do mammals reproduce and grow? How are life cycles of different living things similar and different?

### Factual knowledge

Mammals reproduce through sexual reproduction. This is when fertilization happens: when a female egg meets male sperm to create new life known as offspring. Sexual reproduction involves two parents, and offspring is different from their parents.

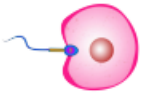
Plants can reproduce through sexual reproduction, when pollen from the male cell joins ova from the female part of the flower. This happens through pollination.

Some plants reproduce through asexual reproduction, which only involves one parent. This is when a parent plant grows a new plant from parts such as runners, bulbs or cuttings instead of using seeds. These offspring are identical to the parent.



### Key vocabulary

- **fertilisation** - the joining of a male and female sex cell to create a new life



- **embryo** - the earliest stage of development after fertilisation



- **sperm cells** - the male sex cells that are produced in the testes



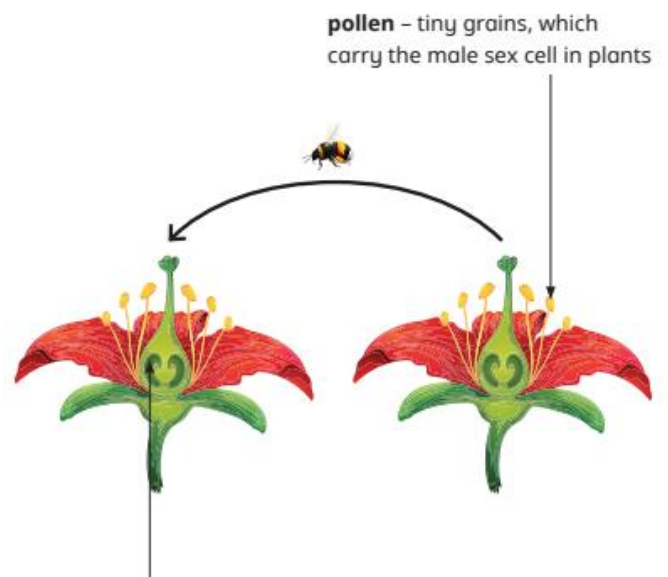
- **egg cells** - the female sex cells that develop in the ovaries



- **sexual reproduction** - a process of making non-identical offspring which requires two parents

- **pollen** - tiny grains which carry the male sex cell in plants
- **stamen** - the male parts of a flowering plant
- **pistil** - the female parts of a flowering plant

**pollination** - the transfer of pollen from the anther of a flowering plant to the stigma of a flowering plant



**ovule** - the female sex cell found in the ovary of plants

**fertilisation** - the joining of a male and a female sex cell to create a new life

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How do different plants reproduce? How do flowers, pollinators and seeds help in reproduction?

How do mammals reproduce and grow? How are life cycles of different living things similar and different?

- **clone** – a plant or animal that was produced asexually and is identical to its parent



- **runner** – a stem that grows horizontally along the ground and produces new clone plants



- **tuber** – a thick stem that grows underground that produces new clone plants



- **bulb** – a part of a plant with layers which stores food and produces new clone plants



- **asexual reproduction** – the production of identical offspring from only one parent



## Experiment variables

- **independent variable** (what will change) – the plant part used for the cutting



- **dependent variable** (what will be measured) – the height of the plants once they have grown



- **controlled variables** (what is kept the same) – the size of the plant pots, the mass of soil, the parent plant, the position of the pots and the volume and frequency of watering



## Planning sentence stems

- I predict that ...  
I think this will happen because ...
- We are changing the ...
- We are measuring the ...
- We are keeping the \_\_\_\_\_ the same.