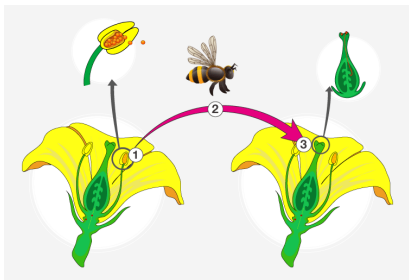


**KNOWLEDGE ORGANISER**  
**BIG IDEA: ECOSYSTEMS**  
**TOPIC: PLANT REPRODUCTION**

Key Word	Definition
<b>fertilisation</b>	Joining of a nucleus from a male and female sex cell.
<b>germination</b>	a process, controlled by enzymes , in which the seed begins to develop into a new young plant.
<b>ovules</b>	Female sex cells in plants found in the ovary.
<b>pollen</b>	Contains the plant male sex cells found on the stamens.
<b>pollination</b>	Transfer of pollen from the male part of the flower to the female part of the flower on the same or another plant.
<b>seed</b>	Structure that contains the embryo of a new plant.

Pollination

**Pollination** is when **pollen** is transferred from the anther to the stigma. This can be within one flower or between different flowers. Pollen from the anther can be carried by insects such as bees or can be carried by the wind. The stigma is sticky to make sure that pollen sticks to it.



Flowers contain the reproductive organs of a plant. Flowers have male and female parts.  
 Male: anther and filament  
 Female: stigma, style and ovary

Stamen

This is the name for the male parts of the flower – the filament and anther

Anther

Where pollen is made

Filament

Supports the anther

Petal

Is brightly coloured to attract pollinators

Stigma

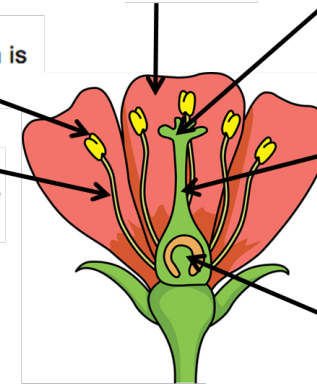
A female part of the flower that receives pollen from pollinators

Style

Connects the stigma and ovary

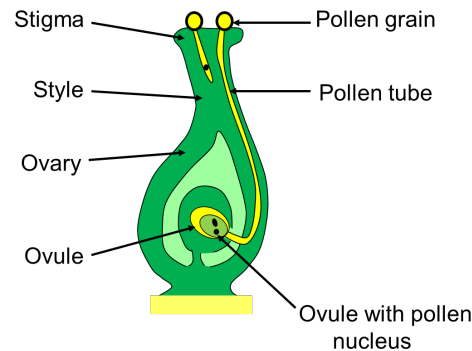
Ovary

The part of a flower that contains ovules



Fertilisation

Fertilisation is when the nucleus of the male sex cell (**pollen**) and the female sex cell (ovule) join together. After **pollination** has occurred, the nucleus of the pollen has to travel down the style until it reaches the ovary. It then joins with the nucleus of an ovule and the plant is said to be fertilised. The ovary then becomes a **fruit** and the ovules become **seeds**.



Seed dispersal

**Seeds** develop into new plants. They are dispersed (moved away) from the parent plant so that they have enough room and nutrients to grow. Seeds can be dispersed by:

- The wind
- Animals
- Explosions
- water



Dandelion seeds have parachute like structures so they are easily moved by the wind.



Sandbur has hooks so that it clings to animal fur



Coconuts have air spaces so they can float on water



Pea pods split open and the seeds are thrown out