

Be REFLECTIVE: Review your learning



KNOWLEDGE ORGANISER

Biology: Ecosystems – plant reproduction

Name: _____

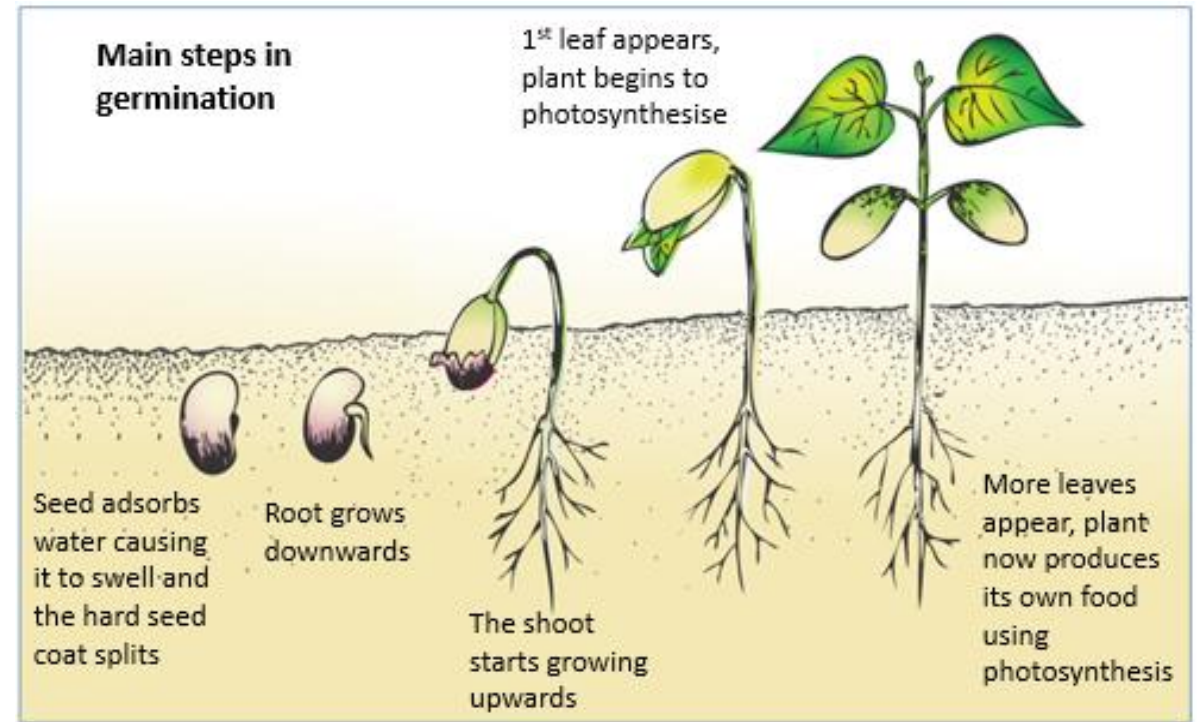
Keyword	Definition
Pollen	Contains the plant male sex cells found on the stamens.
Ovules	Female sex cells in plants found in the ovary.
Pollination	Transfer of pollen from the male part of the plant to the female part of a plant. Pollen is usually carried by insects or wind from one flower to another.
Fertilisation	The process by which the male (pollen) and female (ovule) sex cells meet. This develops into a seed and the ovary develops into a fruit.
Germination	If a seed has the correct resources (water oxygen & warmth, it will start to grow. The period of time in which the seed begins to grow is known as germination.
Seed	Structure that contains the embryo of a new plant.
Fruit	Structure that the ovary becomes after fertilisation, which contains seeds.
Carpel	The female part of the flower, made up of the stigma where the pollen lands, style and ovary.

Insects are important in pollination. Bees are currently threatened and it's important to help them survive. Without them, we would have issues with growing our food.



Four methods of seed dispersal:

- Wind
- Animal
- Water
- explosive



Adaptations of insect pollinated flowers



often sweetly scented with nectar - to attract insects
large, brightly coloured petals - to attract insects
pollen often sticky or spiky - to stick to insects
moderate quantity of pollen - less wastage than with wind pollination
anthers firm and inside flower - to brush against insects
stigma inside the flower - so that the insect brushes against it
stigma has sticky coating - pollen sticks to it

Adaptations of wind pollinated flowers



no scent or nectar - no need to attract insects
small petals, often brown or dull green - no need to attract insects
pollen light and smooth - wind can blow it and stops it clumping together
pollen produced in great quantities as most of it doesn't reach other flowers
anthers loosely attached and dangle out - to release pollen into the wind
stigma hangs outside the flower - to catch the drifting pollen
stigma feathery or net like - to catch the drifting pollen

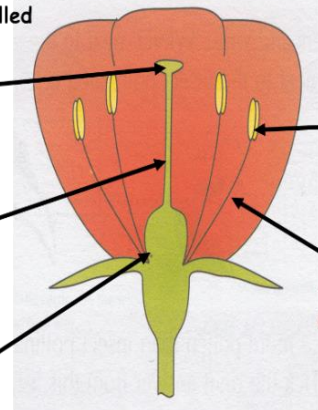
The Pistil or Carpel

The female part of the flower is called a pistil.

Stigma
The top of the Carpel is called the Stigma. What do you notice when you touch it?

Style
The Style acts in the same way as a stem and holds up the Stigma.

Ovary
The ovary contains the eggs.



The Stamen

The male parts of the flower are called Stamens.

Anther
The top of the Stamen is called the Anther.

Filament
The Filament acts in the same way as a stem and holds up the Anther.