Plants KNOWLEDGE ORGANISER

ESSENTIAL PLANTS VOCABULARY	
stigma	The part of the pistil where pollen germinates.
style	A long, thin stalk that connects the stigma and the ovary.
ovary	The base part of the pistil.
sepal	Parts of the flower that give protection.
stamen	The male reproductive part of a flower.
germinate	When a seed begins to grow.
roots	The parts of a plant that anchor it to the ground and absorb water and nutrients.
photosynthesis	The process where sunlight, carbon dioxide and water are used to make nutrients.
pollen	A powdery substance produced by a flowering plant.
pollinate	When pollen is moved from the male anther to the female stigma.
flowers	Flowers make seeds and their petals attract pollinators.
evaporation	The process of turning from liquid to vapour.
leaves	Leaves make good for plants using sunlight and carbon dioxide.
cycle	A series of events that are repeated in the same order.
nutrients	Substances needed to help living things grow and survive.

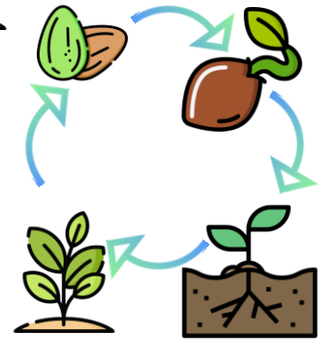
Parts of Flowers

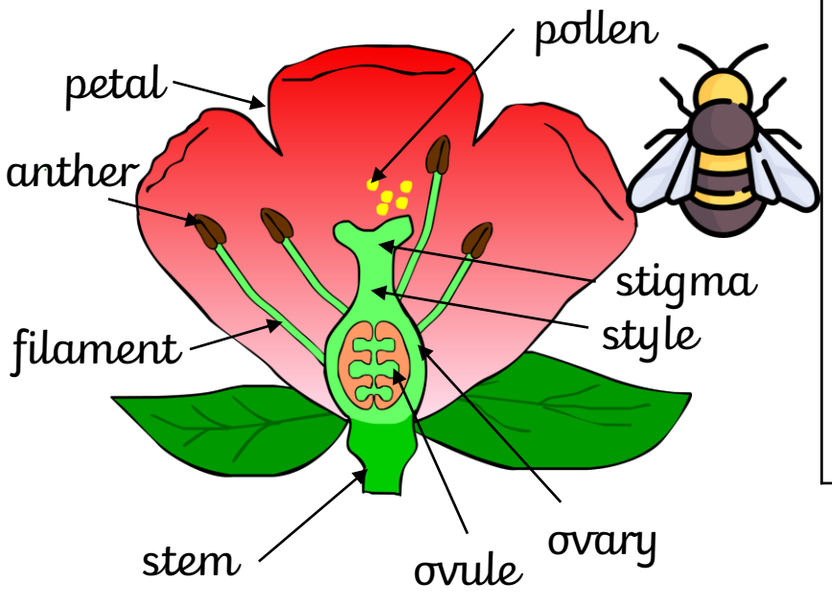
The **stamen** is the male reproductive part of the flower. It is made up of the anther and the filament.

The **pistil** is the female reproductive part of the flower. It is made up of the stigma, style, ovary and ovule.

Life Cycle of a Flowering Plant

Germination- seeds start to grow.
Growing- the plant grows and develops a flower
Pollination- pollen from the anther is transferred to the stigma and travels down the style
Fertilisation- the pollen joins with an ovule in the ovary and seeds start to form
Seed dispersal- the fully grown seeds are moved away from the parent





How does Pollination Happen?

- Insects are attracted to the bright colours and the scent of the petals.
- The insect lands on the flower to connect nectar (a sweet liquid).
- While it harvests the nectar, it rubs against the anther. This transfers pollen onto the insect.
- The insect then moves to another plant.
- When the insect feeds on a new plant, it rubs against the female part of the flower and transfers the pollen.
- Some of this pollen travels down the style.
- Small parts of pollen join with a ovule in the ovary.
- The fertilised ovary then becomes seeds.

MAKING LINKS TO PREVIOUS LEARNING GOLDEN VOCABULARY	
Water Cycle	**Water** is in a constant cycle of evaporation, condensation and precipitation.
Mini-beasts	**Leaves** are the main part of the diet for many mini-beasts.
Life Cycles	All living things go through a **cycle** process of living, reproducing and dying.
Food Chains	When living things die, they provide **nutrients** which help plants grow.

What do Plants Need to Survive?

Different plants have different requirements. Some plants need more water while others thrive on less water. These are the basic requirements for survival:

- **Sunlight**
- **Water**
- **Nutrients from the soil**
- **Fresh air**
- **Space to grow**

The heat from the sun evaporates some of the water from the plant's leaves, which causes it to draw more water from the soil. Plants create food using a process called photosynthesis, where it uses the sun's energy to convert water and carbon dioxide into a substance called glucose.