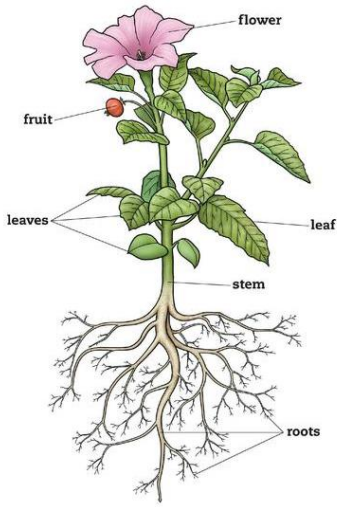
LKS2 Science Knowledge Organiser

Topic: Plants

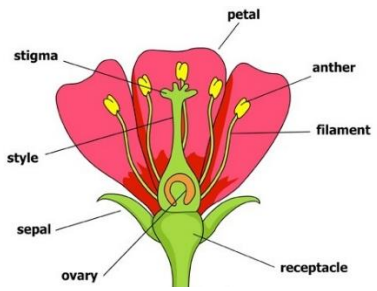
Key questions:

- I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
- I can investigate the way in which water is transported within plants

Key Information



roots	The **roots** supports the plant and absorbs water and nutrients from the soil.
stem /trunk	The **stem** or trunk supports the leaves and transfers water and nutrients to all parts of the plant.
leaves	The **leaf** uses chlorophyll and sunlight to change carbon dioxide and water to sugar. It gives out oxygen and water.
flowers	The **flower** produces seeds. It is a reproductive part of the plant.
fruit	The **fruits** disperses seeds and protects it.
seed	The **seed** produces a new plant for the plant cycle to continue.



petal	**Petals** are often very brightly coloured. This is because their main job is to attract insects into the flower.
stamen	This is the male part of the flower. The **anther** and **filament** make up the **stamen**. It is the **pollen** producing part of a flower.
anther	The **anther** is the part of the stamen where **pollen** is produced.
filament	The **filament** holds up the **anther**.
pollen	This is found on the **anther**. The insects pick up **pollen** from the flower, and carry it to the next flower they visit.
carpel	This is the female part of the flower where the seeds are made. The **carpel** has 3 parts: the **stigma**, the **style**, and the **ovary**.
stigma	The **stigma** is covered in a sticky substance. Its job is to "catch" the grains of **pollen** (which usually come from another flower).
style	The **style** is the stalk that holds up the **stigma**.
ovary	The **ovary** contains the ovules (or "eggs").
sepal	**Sepals** are special types of leaves that form a ring around the **petals**. Their job is to protect the flower while it is still a bud.
receptacle	The **receptacle** is the top part of the flower stem, where the parts of the flower are attached. It is often rounded in shape.

xylem	**Xylem** are tubes that carry water up the stem. Every stem, whether thick or thin, has tubes of xylem inside to transport water up through the plant.

Did you know…?

A tree makes a new ring of xylem each year which is why you can count the rings on a tree stump to find out how old it is.

- petal
- stamen
- anther
- filament
- pollen
- carpel
- stigma
- style
- ovary
- ovule
- sepal
- receptacle
- xylem
- nutrients
- function

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