NPA Knowledge Organiser: Year 3 Science – Spring 2

Absorb: soak up or take in

Anther: the part of a **stamen** that produces and releases the **pollen**

Bulb: a root shaped like an onion that grows into a **flower** or **plant**

Carbon dioxide: a gas produced by animals and people breathing out

Dispersed: scattered, separated, or spread through a large area

Fertilisation: in **plants,** where **pollen** meets the **ovule** to form a **seed**

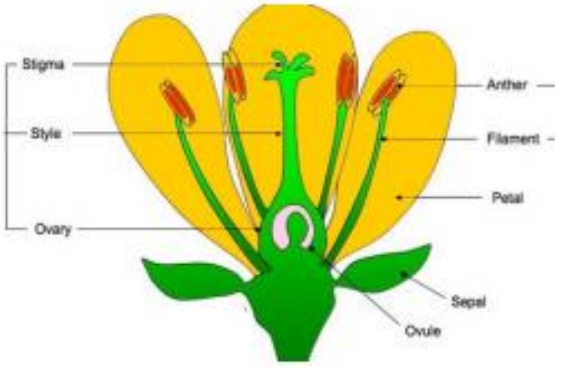
Flower: the part of a **plant** which is often brightly coloured and grows at the end of a **stem**

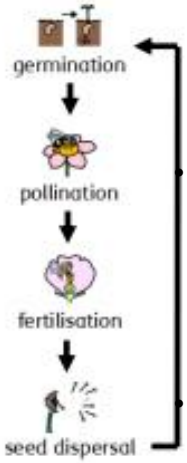
Germination: if a **seed germinates** or if it is **germinated,** it starts to grow

Leaf/leaves: the parts of a tree or plant that are flat, thin and usually green

Plants

How do **flowers** help in the **life cycle** of **flowering plants?**





- The **flower's** job is to create **seeds** so that new **plants** can grow.
- **Pollination** occurs when **pollen** from the **anther** is transferred to the **stigma** by bees and other insects.
- The **pollen** then travels down and meets the **ovule**. When this happens, **seeds** are formed - this is called **fertilisation.**
- **Seeds** are then **dispersed** so that **germination** can begin again.

John Gerard (1545 – 1612)

John Gerard was a famous English botanist born near Nantwich. While working as a botanist in London, he wrote the General History of Plants.

https://www.dkfindout.com/uk/search/plants/
https://www.everyschool.co.uk/science-key-stage-2-plants.html

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Life cycle: the series of changes that an animal or **plant** passes through from the beginning of its life until its death

Nutrients: substances that help **plants** and animals to grow

Pollen: a fine powder produced by **flowers**.

Pollination: To **pollinate** a plant or tree means to **fertilise** it with **pollen**. This is often done by insects.

Roots: the parts of a **plant** that grow under the ground

Seed: the small, hard part from which a new **plant** grows

Stem: the thin, upright part of a **plant** on which the **flowers** and **leaves** grow

Stigma: the top of the centre part of a **flower** which takes in **pollen**

Vegetation: **plants**, **trees** and **flowers**

By the end of this unit, you'll know:

- The petals on a flower are usually bright - this is to attract bees and other insects so that they can collect pollen to make seeds.
- The seeds are then able to grow to make new plants. This is called germination.
- Leaves use carbon dioxide and sunlight to make food for the plant.
- The stem carries water and other nutrients from the roots to the rest of the plant. Leaves use this water to make food.
- The stem also helps to keep the plant upright so that the sunlight can reach it easier.
- The roots help to 'anchor' the plant in the soil. They also absorb water and nutrients from the soil for the stem to carry to the rest of the plant

How is water **transported** within plants?

- Water is absorbed from the soil by the roots.
- It is then transported from the roots to the stem and then to the rest of the plant.

What do **plants** need to **survive?**

"The green matter of plants… we propose to give the name of chlorophyll."
– Pierre-Joseph Pelletier