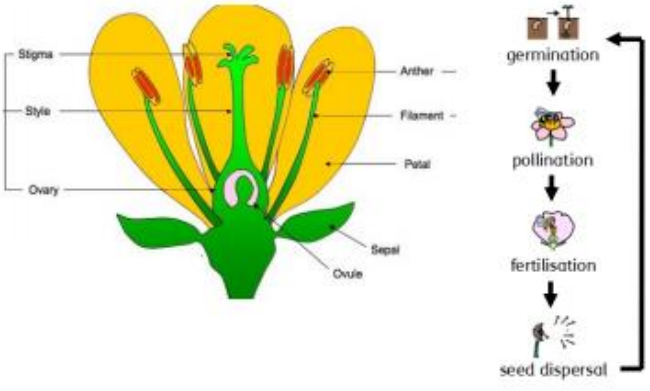
Year 3 Science		
NC Unit - Plants	**Do living things need different things to survive?**	**Biology**

What should I already know?

- Which things are living and which are not.
- A variety of **common wild** and **garden plants**, including **deciduous** and **evergreen trees** and how to identify them.
- The **structure** of **common flowering plants**, including **trees** (including **leaves, flowers, fruits, roots, bulbs, seeds, stem, trunks** and **branches**)
- **Seeds** and **bulbs** grow into **mature** plants
- **Plants** need water, light and a suitable **temperature** to grow and stay **healthy**.
- Different **vegetation** belts and **climate zones** around the world
- **Plants** and animals depend on each other to survive.

Diagrams



Big ideas this works towards:

- *Living things are special collections of matter that make copies of themselves, use energy and grow.*

What will I know by the end of the unit?

The **functions** of the different parts of **flowering plants**. **flower** **seed** **leaf** **stem** **roots** 	• 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**.
What do different **plants** need to grow?	• air • water • sunlight • **nutrients** from the **soil** • room to grow • suitable **temperature**  The amount of each of these may vary depending on the type of **plant**. For example, cacti need less water than other **plants**.
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**.
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.

Vocabulary

Absorb - soak up or take in.

Anther - the part of a stamen that produces and releases the pollen.

Branches –
parts that grow out from the tree trunk and have leaves, flowers, or fruit growing on them.

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

Climate Zones - sections of the Earth that are divided according to the climate. There are three main climate zones; polar, temperate and tropical.

Common - something that is found in large numbers or it happens often.

Deciduous - a tree that loses its leaves in the autumn every year
Dispersed - scattered, separated, or spread through a large area

Dissect - to carefully cut something up in order to examine it scientifically

Evergreen - a tree or bush which has green leaves all the year round

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

flowering - trees or plants which produce flowers

fruit - something which grows on a tree or bush and which contains seeds or a stone covered by a substance that you can eat

germination - if a seed germinates or if it is germinated, it starts to grow healthy well and not suffering from any illness.

leaf / leaves - the parts of a tree or plant that are flat, thin, and usually green.

life cycle -the series of changes that an animal or plant passes through from the beginning of its life until its death.

Petal - thin coloured or white parts which form part of the flower