

In this unit: Pupils will dissect different plants and about the different parts and their functions. They will build on their knowledge from year 2 and investigate growing conditions. Pupils will investigate areas of Barnsley where flowers could be displayed and justify their choice.

Children should know:

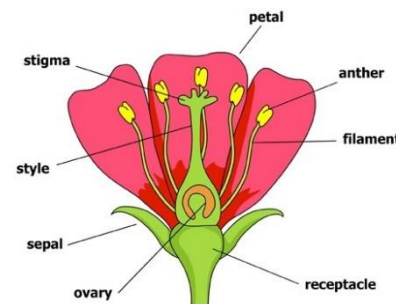
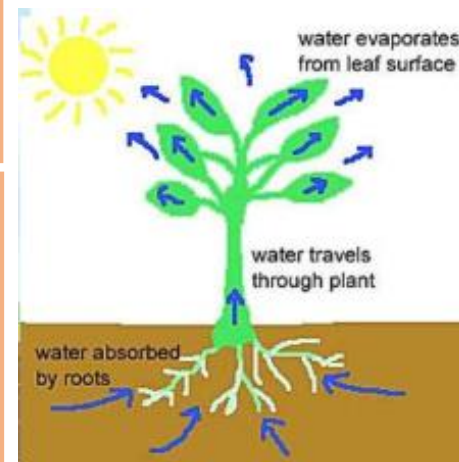
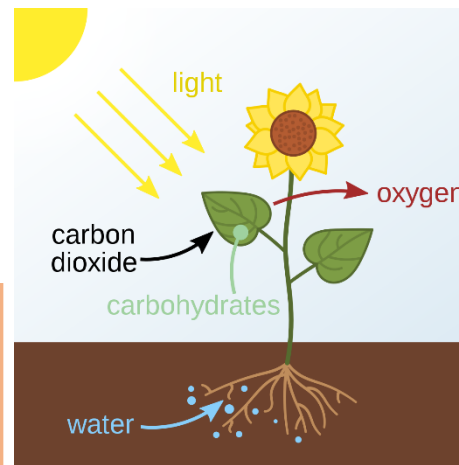
- that plants require things such as water, warmth, nutrients and light to grow and that without one of these they may stop growing.
- the basic parts of plants e.g. leaves, stem, fruit, roots, trunk, branches
- that plants can move.
- that plants provide us with food and some can be eaten by humans.
- that plants mostly get their nutrition from soil.
- a variety of common wild and garden plants, including deciduous and evergreen trees and how to identify them.

By the end of this unit, children will know:

- the functions of different parts of flowering plants e.g. that petals are bright to attract insects to help them pollinate.
- that seeds are able to grow into new plant and this is called germination.
- that leaves use carbon dioxide and sunlight to make food for the plant.
- that the stem carries water and other nutrients from the root.
- that roots anchor the plant and absorb water and nutrients from the soil.
- that plants need air, water, sunlight, nutrients, room and a suitable temperature to grow, but the amount of each varies depending on the type of plant.
- that flowers help in the life cycle of flowering plants and how.
- the types of plants and trees that grow in different climate zones.

Pupils could investigate:

- the different factors in plant growth e.g. the amount of water, the amount of light, the amount of nutrients.
- how water is transported in plants.
- the structure of fruits, by dissecting them.
- the different parts of a flower and how each part helps with fertilisation.
- the effects of flower competitions on urban life.



### Key Vocabulary

|                |  |
|----------------|--|
| absorb         | soak up or take in   |
| anther         | the part of the stamen that produces and releases pollen   |
| canopy         | the upper layer of the habitat zone  |
| carbon dioxide | a gas produced by animals and people breathing out that is used by plants to make energy                                       |
| climate zone   | sections of the earth that are divided according to the climate. There are three climate zones: polar, temperate and tropical. |
| dispersal      | scattered, separated or spread through a large area  |
| dissect        | to carefully cut something up to examine it scientifically   |
| fertilisation  | in plants, where pollen meets the ovule to form a seed   |
| formation      | the process of being formed or made  |
| ovule          | a small egg  |
| oxygen         | a gas given out as a waste product by plants and trees that animals need to survive  |
| stigma         | the top of centre part of a flower which take in pollen  |
| transported    | taking something from one place to another   |

Key Questions:

- what is the role of the [part] in a plant?
- will a plant grow without [water]?
- what are the parts of a flower called?
- how is water transported within plants?

