

**LKS2  
Science  
Knowledge Organiser  
Biology  
Plants and Animals**



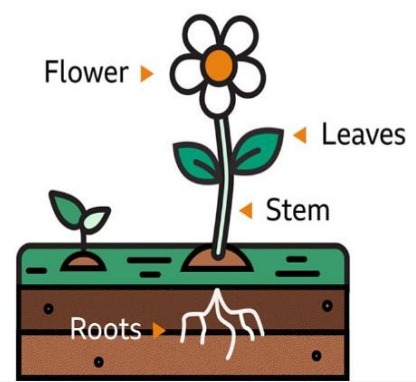
**To be secure in this unit you must:**  
**Knowledge**  
 • Know the function of different parts of flowering plants and trees: roots, stem/trunk, leaves and flowers.  
 • Know how water is transported within plants  
 • Know the plant life cycle, especially the importance of flowers, including pollination, seed formation and seed dispersal.  
 • Know plants need air, light, water, nutrients from the soil and room to grow to thrive and how they vary from plant to plant.  
 • Recognise that living things can be grouped in a variety of ways.  
 • Use classification keys to group, identify and name living things  
**Know how changes to an environment could endanger living things.**

**Skill**  
 Ask relevant questions and using different types of scientific enquiries to answer them.  
 • Set up simple, practical enquiries and comparative and fair tests.  
 • Make systematic and careful observation and take accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers.  
 • Gather, record, classify and present data in a variety of ways to help in answering questions.  
 • Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.  
 • Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  
 • Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.  
 • Identify differences, similarities or changes related to simple, scientific ideas and processes.  
 • Use straightforward, scientific evidence to answer questions or to support their findings.

**Vocabulary** **Sticky Knowledge**

<b>seed</b>	A seed is a small baby plant enclosed in a covering called the seed coat, usually with some stored food.
<b>fertiliser</b>	Fertilisers are used to increase the rate of a plant's growth.
<b>seed dispersal</b>	Seed dispersal is the movement or transport of seeds away from the parent plant.
<b>seed formation</b>	A seed is formed when fertilised ovule divides. It stores food and has the potential to develop into a new plant under optimal conditions.
<b>nutrients</b>	Nutrients are the food the plant wants. Most of the plant's nutrients comes from the soil.
<b>stigma</b>	The stigma is usually sticky and receives pollen.
<b>pollination</b>	Pollination is the act of transferring pollen grains from the male anther of a flower to the female stigma.
<b>anther</b>	The stamen has a pollen producing structure at the end which is called the anther.
<b>seed dispersal</b>	Seed dispersal is the movement or transport of seeds away from the parent plant.
<b>classify</b>	Classification is the word we use to describe the process of observing a living thing and deciding which group it belongs to.

<b>Roots</b>	Take up water and nutrients from the soil. The roots also keep the plant steady and upright in the soil.
<b>Stem</b>	Carries water and nutrients to different parts of the plant. The stem of a tree is called its trunk. This often divides into smaller branches.
<b>Leaves</b>	Use light from the Sun, along with carbon dioxide from the air and water to make food for the plant. This process is called photosynthesis.
<b>Flowers</b>	Are involved in plant reproduction and produce seeds from which new plants grow.



**Flowers produce seeds**

When pollen has moved from one flower to another, the flower that loses pollen will start to die. It no longer needs its colourful petals, scent or nectar. But before it dies, the flower will produce seeds.

We use many of these seeds, like corn and oats, to make foods like bread and breakfast cereal.

Some seeds are surrounded by fruit, such as apples, plums and pears which we grow and eat.

**Asexual reproduction**

Some plants can also reproduce without an egg cell being fertilised to produce a seed. Instead, these plants produce an identical copy of themselves. This type of reproduction is known as asexual reproduction.

Plants can reproduce asexually in a number of different ways. Some plants produce bulbs, like daffodils and snowdrops. Others, like potatoes, produce tubers. These sit under the soil and develop into new plants the next year.

