

Knowledge Organiser Plants Year 2

What I have already learnt ELG's

Understanding the Natural World

- I have explored the natural world around me, making observations and drawing pictures of animals and plants;
- I have learnt about some similarities and differences between the natural world around me and contrasting environments, drawing on my experiences and what has been read in class;
- I understand some important processes and changes in the natural world around me, including the seasons and changing states of matter.

Year 1

- I can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- I can identify and describe the basic structure of a variety of common flowering plants, including trees

Key skills I will learn/use

Working Scientifically

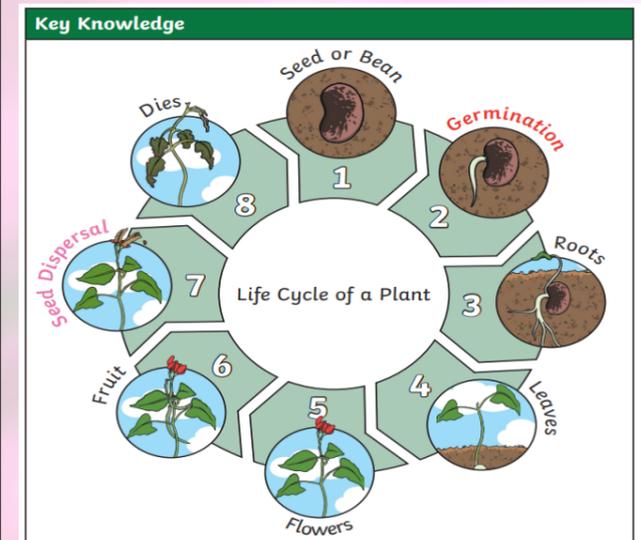
- I will be able to ask simple questions and recognise that they can be answered in different ways
- I will be able to observe closely, and use simple equipment
- I will be able to perform simple tests
- I will be able to identify and classify
- I will be able to use my observations and ideas to suggest answers to questions
- I will be able to gather and record data to help in answering questions

Key Concepts

- Biology
- Chemistry
- Physics
- Scientific Enquiry
- Science for the future
- **Vocabulary**

Key Knowledge

- To know how seeds and bulbs grow into mature plants
- To know why plants, need water, light and a suitable temperature to grow and stay healthy



What I will have learnt by the end of this unit/ Key Stage

- I will be able to observe and describe how seeds and bulbs grow into mature plants
- I will be able to find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

My skills and knowledge that I may use from other subjects

Literacy- I can use my literacy knowledge to write about my findings

Geography- I can use my knowledge of the local area to think about planting things and look at where different plants grow best in the world

Mathematics- I can use my measuring skills to compare different plants

Recall and Remember

Can you answer these 5 questions in 6 minutes?

1. Can you name the parts of a plant?
2. What do plants need to grow well?
3. Can you name 3 garden plants?
4. Can you name 3 wild plants?
5. Can you explain the life cycle of a plant?

Opportunities for teaching Diversity, Equality (including protected characteristics) and expanding Cultural Capital

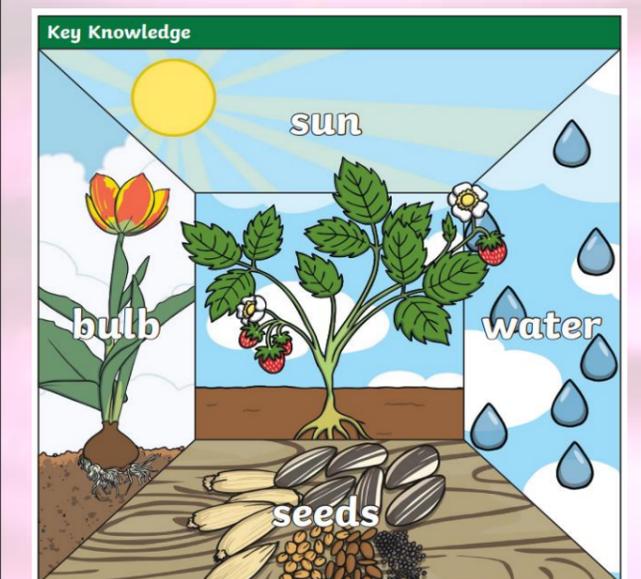
Visit Poet's Corner in Lealholm

- to explore a wide range of plants

North York Moors National Park Education Service Activity

Woodland Adventure

- The session takes place in Crow Wood, a small area of mixed woodland within the grounds of the visitor centre. Children learn about a woodland habitat and its wildlife through a variety of resources, sensory games and hands on activities.



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What do plants need to grow well?

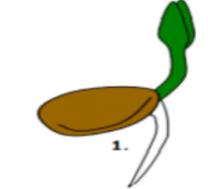
<p>Water</p>  <p>Like animals and humans, plants need water to survive. Plants are able to get water from the soil through their roots. They can also catch water on their leaves.</p>	<p>Sunlight</p>  <p>Plants need lots of sunlight to help them grow. Plants do not eat food. Instead they use sunlight to make their own food. Too little light will leave plants weak.</p>
<p>Temperature</p>  <p>Plants need the temperature to be just right for them to grow properly. If it is too hot, they may burn and wilt. If it is too cold, they may freeze and die. This is why there are fewer plants at the poles and the deserts.</p>	<p>Nutrition</p>  <p>Plants take nutrients from the soil.</p>

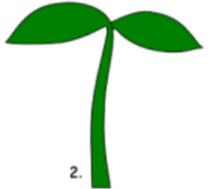
Key Vocab	
Flower	Part of a plant that attracts insects and birds
Petal	Petals are part of a flowering plant which attract insects such as bees
Leaf	Part of a plant which absorbs sunlight which is used by the plant to make food
Root	Part of a plant which takes in water and nutrients from the soil
Stem	Part of a plant which helps support it and keep it upright
Seed	The part of a flowering plant that can grow into a new plant
Bulb	Bulbs are underground masses of food storage from which plants grow
Absorb	To take in or swallow up
Sunlight	Light from the sun is a form of energy which helps plants to grow
Germination	The stage of plant growth where the seeds begins to sprout
Sprout	When a plant sprouts, it grows new shoots
Seed dispersal	Seed dispersal is when the seeds move away from the plant. They can be moved by the wind or animals

Life cycle of a plant

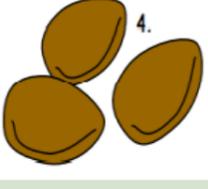
Like all living things, plants have a life cycle. They live, reproduce and then die.

- 1. Germination**
The seed begins to grow when the conditions are right. This is called germination. It puts out roots and shoots and starts to turn into a young plant.


- 2. Growth**
The young plant produces leaves in order to get energy from the Sun. It will need a lot of energy in the next stage of its life cycle.

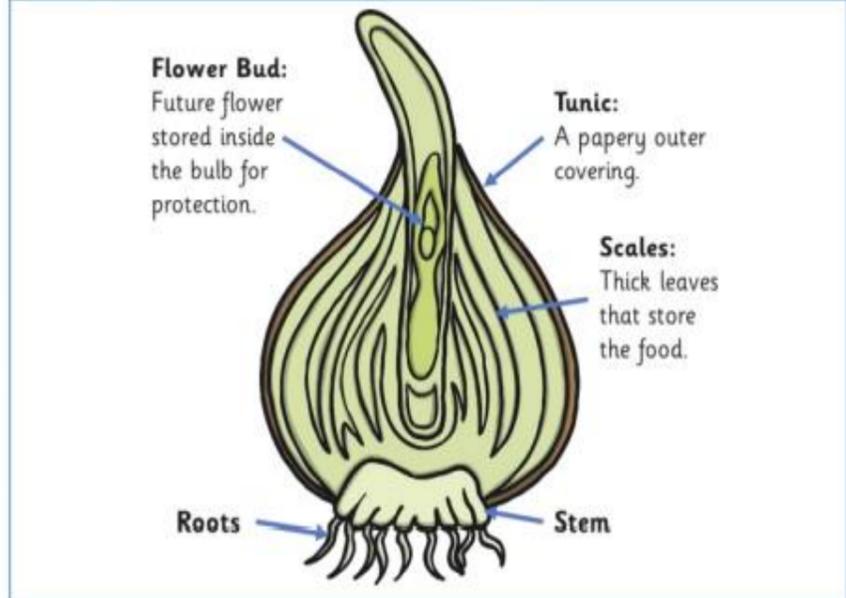

- 3. Flowering**
The plant creates flowers to help it to reproduce. The flower needs pollen from another flower in order to do this. This is called pollination. Some flowering plants attract insects to help them.


- 4. Seed**
When a flower has been pollinated, it produces seeds, which are capable of growing into new plants. Sometimes the seeds have a fruit around them.



Seeds and bulbs

Some plants grow first from a seed, and then develop a bulb that helps them to grow back year after year. A bulb lets the plant rest underground over the winter when it is too cold, then grow back later in the year when conditions are right.



Some common plants which grow from bulbs...



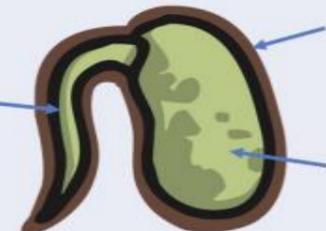
What you should already know...



- Plants are a large group of living things that use sunlight to make their own food
- There are many, many different kinds of plants, including trees, vines and grasses
- Plants have lots of different parts – for example stems, leaves and roots
- Some trees lose their leaves in the winter (deciduous). Some keep their leaves all through the year (evergreen)
- Some plants are 'flowering plants' – they grow flowers on them

How do seeds grow?

Every single seed has the beginnings of a new plant inside it, along with a little store of food to help it grow. When the conditions are right, the seed soaks up water and swells, and the tiny new plant bursts out of its shell. This is called **germination**.



Embryo: The tiny root and shoot which will grow into the adult plant.

Seed Coat: A tough outer covering.

Food Store: A Store of food for the young plant to use until it has grown enough to make its own food.

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