

Topic:	Year group	Term
Plants (light and dark)	2	Spring 1

Background knowledge

Children have the opportunity to explore a wide range of plants. They should closely observe a diverse selection of plants, which can include flowering plants, fruit, vegetables and herbs. They should sort and group these plants using different criteria or categories. For example, they could group plants based on their colour, smell or other physical features.

In Year 2, children do not need to identify the function of each plant part as this concept is introduced in Year 3.

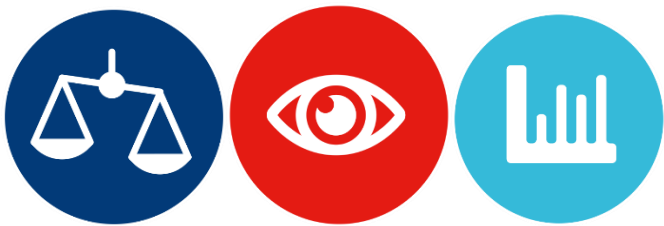
Children look at the best conditions for growth for seeds. They should be given the opportunity to observe the seeds in detail and make accurate observations using hand lenses. Within this step, children should understand that some plants grow from seeds and that seeds need water and the correct conditions to grow. Children do not need to understand the germination process in this step, as this is covered in Year 3.

Common misconceptions

- Children may think that plant growth will happen over a short period of time, such as overnight.
- Children may think that plants do not need any light at all to grow.
- Children may think that all plants need the same amount of light.
- Children may think that the seed consumes the soil to begin its life cycle.
- Children may think that all seeds grow into the same plants.
- Children may think that trees are not classified as plants.

What should I already know?

In year 1 children learnt to identify and name familiar flowering plants and trees. They also named and identified the simple parts of flowering plants and spotted some simple patterns between plant parts including colours, sizes and shapes.

National Curriculum Objectives / Key Skills	The Journey
Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. <u>Working scientifically</u> Observing closely, using simple equipment Asking simple questions and recognising that they can be answered in different ways. Performing simple tests. <u>Scientific enquiry</u> 	- Explore - Plant parts - What do plants need to grow? - Plan - light and dark - Investigate - light and dark

Outcomes
Working towards: I can remember the main parts of a plant. With support, I can investigate what a seed needs to grow. I can say some changes I can see. Expected: I can remember the names of the parts of a flowering plant and tree. I can predict and investigate what a seed needs to grow. I can observe the changes. I can say what a plant needs to grow. Exceeding: I can describe the changes that occur as a plant grows. I can say what a plant needs to grow and give reasons why. I can describe the changes I observe using scientific vocabulary.

Key Vocabulary	Timeline / Diagrams
Plant - a living thing that grows Root - grows underground on a plant Stem - keeps the plant upright Leaf - usually green growing off the stem Seed - the part of a plant which moves away from the parent plant and can grow into a new plant Bulb - the part of the plant which is resting before growing into a new plant Temperature - a measure of how hot or cold it is Names of plants in school grounds and woodlands Observe - to look at something closely Predict - to say what you think might happen Measure - to see how big something is Bar chart - a way of displaying information Investigation - to find something out Result - to say what we have found out	   

Key people / places
STEM scientist Gardener

Assessment questions / outcomes
• What is similar about these plants? • What is different about these plants? • How did you group the plants? Can you group them another way? • How many ways can you think of? • What are fruits? • What are vegetables? • How many fruits and vegetables can you name? • Where is the stem/roots/leaves/petals? • Where is the trunk/branches/leaves/blossoms? • What is similar/different about these plant parts?

- What patterns can you spot with the petals?
- What is similar between plants and trees?
- What are the differences between plants and trees?
- Are there any similarities between these tree parts and parts of other plants?
- What is different about tree parts and other plant parts?
- Why do plants need water?
- What happens if plants do not receive enough water?
- How does water help plants grow?
- Why do plants need sunlight?
- What happens if plants do not receive enough sunlight?
- How does sunlight help plants grow?
- What do plants need to grow and stay healthy?
- How can we make sure one plant gets sunlight and the other does not?
- How often should we observe the plants?
- What things should we keep the same for both plants?
- What will we change?
- What do you think will happen to the plants?
- What do you predict will happen to the plants in the light?
- What do you predict will happen to the plants kept in the dark?
- Why is it important to water both plants?
- How often will you water both plants?
- How much water will you give to both plants?
- What will you change?
- What will you keep the same?