



**Year: 2**  
**Term: Summer**

*Science – Plants*

**Prior knowledge**

Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants)

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. (Y3 - Plants)

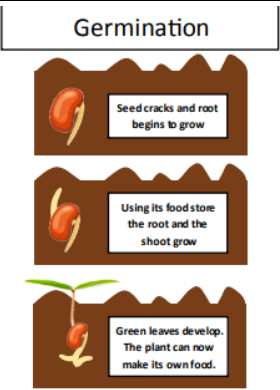
Investigate the way in which water is transported within plants. (Y3 - Plants)

Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)

**Key Knowledge:**

**Children need to know how seeds and bulbs grow**

- When seeds grow this is called germination
- To germinate seeds need warmth, air (oxygen) and water
- Seeds don't need light because they already have a store of food inside them already
- Once the stem breaks through the soil it is then a plant.



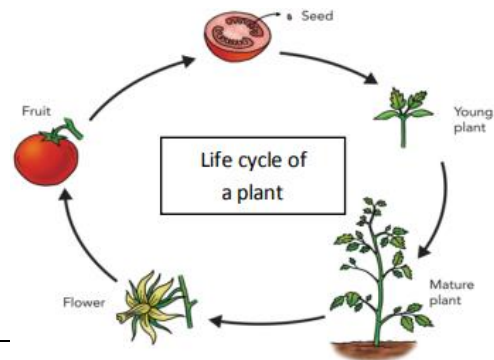
**Children should observe and describe how plants grow into mature plants**

A plant	A living thing that usually grows from the ground
The main parts of a plant	Flowers, leaves, stem, roots
To grow and survive plants need:	<ul style="list-style-type: none"> <li>• Light</li> <li>• Water</li> <li>• Carbon dioxide – this is so they can make their own food</li> <li>• Warmth – this is because if plants get too hot or too cold then they will die</li> </ul>

**Life cycle of a plant**

Children should be introduced to the requirements of plants for germination, growth and survival, as well as the processes of reproduction and growth in plants.

The plant grows.  
The flower comes and then dies.  
A fruit with seeds is left behind.  
The seeds get scattered.  
The process begins again.  
This is called the life cycle of a plant.



### Key Vocabulary

Prior vocabulary - Plants, leaves, flower, seeds, grow, vegetables, fruit, roots, stem, petals, trunk, habitat, growth, deciduous, evergreen, tree, structure

Working scientifically key vocabulary – observe, test, magnifying glass, record, equipment

Spelling	Definition
Survive	Continue to live or exist
Life Cycle	Continue series of changes showing the life of something
Scattered	Move in various random directions
Germination	To start or cause to start grown; sprout.
Nutrients	Something needed to help plants live and grow.

Additional vocabulary to discuss across the unit – survive, life cycle, scattered, reproduction, bulb, temperature

### Key Skills:

#### Knowledge Skills

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

#### Working scientifically

- Observing and recording, with some accuracy, the growth of a variety of plants as well as they change over time from a seed or bulb
- Observe similar plants at different stages of growth
- Setting up a comparative test to show that plants need light and water to stay light

### Future Learning

Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants)

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. (Y3 - Plants)

Investigate the way in which water is transported within plants. (Y3 - Plants)

Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)

### Key Outcomes

#### **1. Which plants can we eat?**

Children will explore, different plants by dissecting them, looking at the seeds inside (fruit) and understand which parts we eat and what fruit and vegetables are.

#### **2. Are all seeds the same?**

Children will dissect fruits and use simple equipment like magnifying glasses to make close observations of different types of seeds in fruit. How do these seeds compare to bulbs and are they the same?

#### **3. What do plants need to grow?**

Children will suggest ideas (predictions) and decide on one variable (with teacher guidance) to change to test what a plant needs to grow (e.g. water, soil, correct temperature, light (not seeds to germinate)). Children will record results in simple tables and charts and talk about and discuss the changes they have seen over time and what it suggests about a plant's needs. Can they suggest a further investigation?

#### **4. How can we keep plants healthy?**

Children will continue to investigate growth of plants by exploring what they need to be healthy as they grow e.g. light, water, correct temperature.

#### **5. Where do plants grow best?**

Children will explore and identify plants that grow well in different conditions and suggest why, identifying the different requirements of different plants.

#### **6. What are the different stages of a plant's life cycle?**

Children will use their understanding from growing seeds and bulbs to maturity to help them to explain and describe plant life cycles through labelled diagrams or presentations.