Hallcroft Infant & Nursery School

Science Lesson Sequence

Summer 1 - Year 2

Plants

What we already know, remember and can do:

- Identify plants and their features.
- Recall some of the roles that flowering plant parts have.
- Name some trees and their parts.
- Identify similarities and differences between deciduous and evergreen leaves.
- Recall that seeds and bulbs come from plants.
- Recognise that seeds need water for growth.
- A variety of common plants and how they differ.

Working Scientifically:

- Raise questions about plants and respond to suggestions on how to set up an investigation to answer a question.
- Use a magnifying glass to observe the different parts of flowering plants.
- Draw and label a diagram of a flowering plant.
- Use an identification chart to name flowering plants.
- Sort plants into groups based on specific criteria.
- Use non-standard units to measure leaf length.
- Recognise similarities and differences in seeds and bulbs.
- Recognise that predictions do not always match observations.
- Identify which plant parts can be eaten.
- Recognise that scientific research into plants leads to important discoveries.

	Learning Objective	What children will know and remember (Substantive)	What children will be able to do (Disciplinary)	Revisited Vocabulary	New Vocabulary
1	**Learning Objective** **Knowledge** – To recognise that seeds need certain conditions for growth **Working scientifically** - To plan comparative tests	✓I know the conditions that seeds need to be able to grow	✓I can suggest what should change when planning a comparative test ✓I can plan what to observe and measure	feature flower growth leaf petal root stem seed	comparative test conclusion condition growth measure observe shoot
2	**Learning Objective** **Knowledge** – To recognise that seeds and bulbs contain what they need to grow into a plant **Working scientifically** - To measure with a ruler	✓I can recall that seeds have an energy store inside. ✓I can recall that a seed needs suitable conditions to grow. Working scientifically	✓I can use a ruler to measure in centimetres.	seed leaf plant stem observe	bulb energy growth measure nutrient seed seed coat shoot

3	**Learning Objective** **Knowledge** – To describe what seeds need to germinate **Working scientifically** – To record data in a table	✓I can recall that seeds need water and warmth to germinate.	✓I can record plant growth data in a table. ✓I can compare plant growth in different test conditions.	growth measure observe seed shoot stem	comparative test conclusion condition germinate
4	**Learning Objective** **Knowledge** – To describe the effect of light on plant growth **Working scientifically** – To observe using a magnifying glass	✓I can recall that plants need light for healthy growth.	✓I can use a magnifying glass to observe and compare plant growth. ✓I can record plant growth data over time.	leaf roots germinate growth measure observe	condition energy wilt
5	**Learning Objective** **Knowledge** – To identify stages of a plant's lifecycle **Working scientifically –** To draw and label diagrams	✓ I can describe the stages of a plant's life cycle. ✓ I can sequence the stages of a plant's life cycle.	✓ I can draw diagrams to represent the stages of a plant's life cycle.	germinate growth leaf shoot roots seed	diagram flower life cycle seedling
6 **Outcome**	**Learning Objective** **Knowledge** – To recognise what plants need for healthy growth **Science in Action** – To recognise that humans have a responsibility to care for plants.	✓I can name important discoveries made by scientists.	✓I can closely observe different plant parts. ✓I can identify plant parts that are eaten.	condition germinate growth measure observe wilt	

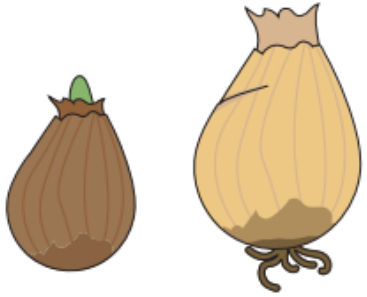
leaves	They use light to make food for the plant.
roots	They take up water and nutrients from the soil.
flowers	They make seeds so new plants can grow.

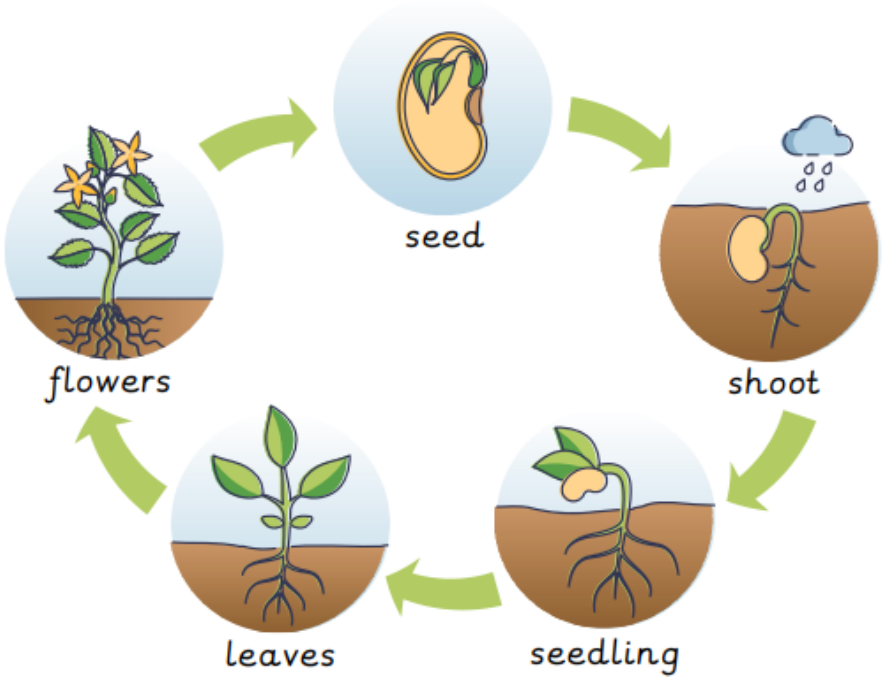
- Seeds contain a store of **energy**.
- **Germination** is when a new plant starts to grow.
- A seed needs **water** and **warmth** to germinate.

The **shoot** is the first green part of a plant to grow from a seed.

Bulbs

Rounded roots from which new plants can grow.



What do plants need for healthy growth?

Plant life cycle