



1. Can I **observe** and describe how seeds and bulbs grow into mature plants?

- **Prior Learning (Year 1—Summer Term):** identified common plants and trees; learnt the structure of plants/trees
- **Vocab:** experiment, observe, bulb, seed
- Know that seeds and bulbs grow into mature plants over time (e.g. a bean seed grows into a bean plant, a bulb grows into a flower like a daffodil or onion)
- Know that plants grow in stages (e.g. roots grow first, then shoots, then leaves and stems)
- Know that seeds and bulbs need the right conditions to begin growing (e.g. water and warmth help them start to grow)

Note for teachers—please note children grew cress in Year 1 Summer.

Suggested task:

- Plant bean seeds and bulbs (e.g. onion or flower bulbs) in pots or cups.
- Place in a warm spot and water regularly.
- Children observe and draw changes over time (e.g. first sprout, leaves appearing).
- See lesson 3: **do not water** some plants
- See lesson 4: place some plants in a dark place; place some in a cold, dark place

- **Observing closely**

Plants

5. Can I explain what plants need to grow and stay healthy?

- **Prior Learning (lesson 3 & 4):** tested to see if plants need light and water to grow
- **Vocab:** healthy, water, light, temperature
- Know that plants need water to grow and stay healthy (e.g. plants without water wilt and stop growing)
- Know that plants need light and a suitable temperature (e.g. plants grow better in sunlight and warmth than in dark or very cold places)
- Know that plants need the right conditions to survive (e.g. plants can grow in the wrong place but may become weak and unhealthy)
- Know that seeds and bulbs need water and warmth to start growing, but not always light at first (e.g. a seed can start growing underground without light)
- Know that we can use our observations to explain what plants need (e.g. “This plant grew better because it had water and light”)

Note for teachers— Suggested task: Children review their plant investigations and explain which plants grew best, giving reasons based on the conditions (water, light, warmth) and supporting their answers with observations. They should explain/apply understanding rather than observe.

- **Use observations to suggest answers to questions**
- **Identify and Classify**

Note for teachers: allow a week between lessons to allow seeds/bulbs to grow

2. Can I **observe and record** how plants change as they grow over time?

- **Prior Learning (last lesson):** described how seeds and bulbs grow into mature plants
- **Vocab:** experiment, observe, record,
- Know that plants change as they grow over time (e.g. seeds grow roots, then shoots, then leaves and taller stems)
- Know that different plants may grow at different speeds and in different ways (e.g. a bean plant might grow taller quickly, while an onion bulb grows more slowly but develops thicker leaves)
- Know that we can observe and record these changes to help us understand how plants grow (e.g. through drawings, measurements, or simple charts)

Note for teachers— Suggested task:

Children observe plant every few days and record changes by drawing/labelling what they can see, or by measuring its height and noting it on a simple chart.

- **Gather and record data to help answer questions**

Note for teachers: allow 2 weeks between planting seeds/bulbs (lesson 1) and this lesson

4. Can I **perform a simple test** to find out if plants need light and a suitable temperature to stay healthy?

- **Prior Learning (last lesson):** observed how plants need water to grow
- **Vocab:** experiment, compare, light, temperature
- Know that plants need light to grow well and stay healthy (e.g. a plant kept in the dark may grow weak, pale, or bend towards light)
- Know that plants need a suitable temperature to grow (e.g. plants grow better in a warm classroom than in a very cold place)
- Know that we can carry out a simple test to compare how plants grow in different conditions (e.g. placing one plant in light and one in darkness, or one in a warm place and one in a cooler place)
- **Perform a simple test**
- **Gather and record data to help answer questions**

3. Can I **perform a simple test to find out if plants need water to grow? **Note for teachers:** allow 2 weeks between planting seeds/bulbs (lesson 1) and this lesson**

- **Prior Learning (last lesson):** observed how plants change and grow over time
- **Vocab:** experiment, wilt, compare
- Know that plants need water to grow and stay healthy (e.g. a plant without water may wilt, dry out, and stop growing)
- Know that we can carry out a simple test to find out what plants need (e.g. giving one plant water and another none)
- Know that we can observe and compare results to answer a question (e.g. noticing the watered plant grows taller and looks healthier)

Note for teachers— Suggested task: Compare and record the difference in height of a plant that has been watered and one that has not.

- **Perform a simple test**
- **Gather and record data to help answer questions**