

Science

Plants Y2

Remember when

Seeds, bulbs and plants grow. (EYFS)

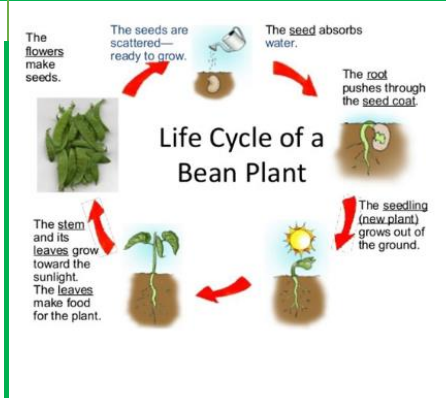
Deciduous trees lose their leaves in the autumn and evergreen trees have green leaves all year round. (Y1)

Named parts of a plant include petals, fruits, roots, bulbs, seeds, stem, trunks and branches. (Y1)

Names of common garden plants and common wild plants (Y1)

Sticky knowledge:

- Plants grow from either seeds or bulbs
- Germination is when seeds and bulbs grow into seedlings
- Children will know mature plants have flowers, fruit and berries
- Children will know some plants grow better in full sun and others in shade.
- Children will know plants need different amounts of water to grow well
- Children will know that some plants grow well in a warm temperature and others in a cold temperature



Key vocabulary

absorb	petals
bulb	reproduce
flower	roots
fruits	seed
growth	seedling
healthy	soil
leaf/ leaves	stem
life cycle	sunlight
mature	temperature
nutrients	water

National Curriculum:

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.

Common Misconceptions

Some children may think:

- plants are not alive as they cannot be seen to move
- seeds are not alive
- all plants start out as seeds
- seeds and bulbs need sunlight to germinate- they have a store of food already so don't need sun to germinate

LO	Knowledge and Skills	Lesson outline
Lesson 1 LO: To know that plants grow from seeds and bulbs Enquiry Type: pattern seeking	Sticky Knowledge: Plants grow from either seeds or bulbs Skill: gathering and recording data to help answer questions	Recap knowledge from Y1 on plants. What do you already know about plants and how they grow/survive? Do all plants grow the same? All pupils - Children plant seeds (sunflower seeds etc) and bulbs and look at packets to see what they will grow into. How tall will they grow? Investigate whether there is a pattern between the size of the seed and the height of the plant it grows into. Use the heights from the seed packets to do this. In books - Create a chart by sticking the seeds in order and finding out how tall they will grow. LA – Pictogram ARE/GDS - bar chart with scale in 1s
Lesson 2 LO: To know the life cycle of a plant Enquiry Type: Observation	Sticky Knowledge: Germination is when seeds and bulbs grow into seedlings Skill: observing closely using simple equipment	Discuss - What will happen to the seeds and bulbs we planted last lesson? Learn about the life cycle of a plant including the word germination. Plant a sunflower seed in a clear cup and start a diary in their books to observe how it grows. Fill in their diary over the next few weeks and draw 4 different stages of growth. LA/ARE - Sort pictures to show the life cycle of a sunflower. Sort key vocab to match each stage. GDS – Sort pictures to show the life cycle of a sunflower and label each stage.
Lesson 3 LO: To know that mature plants have flowers, fruit and berries and these produce seeds, which grow into new plants.	Sticky Knowledge: Mature plants have flowers, fruit and berries Skill: identifying and classifying	Recap the life cycle of a plant from last week. Look at different plants at different points in the life cycle but focusing particularly on fruit and flowers. Show pupils the flower of each plant and the fruit. You could show them how apples and pears etc develop from the flower. Observe the seeds that different fruits contain. Does the size of the fruit affect the size of the seeds it produces? Explain that the fruit, berries and nuts carry the seed to make a new plant to start the life cycle again in a new plant. In books - Children could sort pictures into fruit, flowers, berries, nuts.

<p>Enquiry Type: Observation/ Grouping and classifying</p>		<p>Plenary- set up experiment for next week. Explain they are going to find out what plants need to grow- what do they think?</p> <p>Show them some ready grown cress and talk about where to put them so one gets sun and one doesn't. What do you think will happen?</p>
<p>Lesson 4</p> <p>LO: To know what plants need to grow and survive</p> <p>Enquiry Type: Observation/ comparative testing</p>	<p>Sticky Knowledge:</p> <p>Children will know some plants grow better in full sun and others in shade.</p> <p>Skill: observing closely using simple equipment</p>	<p>Look at the plants set up last lesson. What happened? Discuss the difference in appearance and the affect lack of sun has had on the plant. Does it look healthy? Would it survive here?</p> <p>In books – Complete relevant part of their worksheet to record their observations on the two plants (one with sun and one without)</p> <p>Explain that not all plants survive in full sun and that some prefer the shade. Look at seed packets again to compare full sun, partial sun and shady plants.</p> <p>Recap what they thought plants needed to grow well. How could we find out whether plants need water to grow? Children make suggestions and discuss as a class. Set up enquiry for next week with ready grown cress.</p>
<p>Lesson 5</p> <p>LO: To know what plants need to grow and survive</p> <p>Enquiry Type: Observation/ comparative testing</p>	<p>Sticky Knowledge:</p> <p>Children will know plants need different amounts of water to grow well</p> <p>Skill: performing simple tests</p>	<p>Look at the plants set up last lesson. What happened? Discuss the difference in appearance and the affect lack of water has had on the plant. Does it look healthy? Would it survive like this?</p> <p>In books – Complete relevant part of their worksheet to record their observations on the two plants (one with water and one without)</p> <p>Explain that different plants require different amounts of water. Look at seed packets again to compare.</p> <p>Recap what they thought plants needed to grow well. How could we find out whether plants need warm or cold temperatures to grow? Children make suggestions and discuss as a class. Set up enquiry for next week with ready grown cress.</p>
<p>Lesson 6</p> <p>LO: To know what plants need to grow and survive</p> <p>Enquiry Type: Observation/ comparative testing</p>	<p>Sticky Knowledge:</p> <p>Children will know that some plants grow well in a warm temperature and others in a cold temperature</p> <p>Skill: observing closely using simple equipment</p>	<p>Look at the plants set up last lesson. What happened? Discuss the difference in appearance and the affect a cold/warm temperature has had on the plant. Does it look healthy? Would it survive here?</p> <p>In books – Complete relevant part of their worksheet to record their observations on the two plants (one in warm temperature and one in the cold)</p> <p>Explain that some plants grow well in a warm temperature and others in a cold temperature. Look at various examples for both.</p> <p>Summarise - Do all types of plants need the same thing? Look at plants from around the world in different climates (cactus, water lillies, sunflowers etc). Look at seed packets- what does it say about the amount of sun, water, temperature.</p> <p>In books – ARE/GDS - Children investigate the different sources and complete a table to show what they have found out about what various plants need to grow.</p> <p>LA – Use word mat for support. Adult led discussion.</p> <p>Plenary - Look back through plant diaries and discuss the life cycle they have observed, summarise what they have learnt about plants.</p> <p>Complete mini quiz.</p>
<p>Working towards</p>	<p>End of unit assessment</p> <p>Working at Age related expectations</p>	<p>Working at a greater depth</p>