

Science - Plants

EYFS CYCLE 1 (one year cycle)	EYFS CYCLE 2 (one year cycle)	KS1 CYCLE 1 Spring 2	KS1 CYCLE 2 Spring 2	KS2 CYCLE 1	KS2 CYCLE 2 Summer 2
Impact statements					
EYFS	EYFS	Key Stage 1		Key Stage 2	
<p>N.C</p> <ul style="list-style-type: none"> * Explore plants in their natural surroundings * Grow plants * Describe what they see, hear and feel whilst outside * Identify, compare, classify and group a variety of places, objects, materials and living things. *Talk about changes, including the seasons. *Talk about their immediate environment and compare it to other environments. 	<p>N.C</p> <ul style="list-style-type: none"> * Explore plants in their natural surroundings * Grow plants * Describe what they see, hear and feel whilst outside * Identify, compare, classify and group a variety of places, objects, materials and living things. *Talk about changes, including the seasons. *Talk about their immediate environment and compare it to other environments. 	<p>N.C</p> <ul style="list-style-type: none"> * 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 	<p>N.C</p> <ul style="list-style-type: none"> *Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees *Identify and describe the basic structure of a variety of common flowering plants, including trees 	<p>-----</p>	<p>N.C</p> <ul style="list-style-type: none"> *Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers *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 investigate the way in which water is transported within plants *Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
<p>Explicit reference to: growing Sunflowers Sweet peas</p> <p>Common misconceptions -trees are not plants - there is a young plant inside a seed or bulb - bulbs are big seeds - big plants grow from big seeds and big bulbs - fruit and vegetables come from the supermarket - plants grow at night or when we are not watching them.</p>	<p>Explicit reference to: growing Sunflowers Sweet peas</p> <p>Common misconceptions -trees are not plants - there is a young plant inside a seed or bulb - bulbs are big seeds - big plants grow from big seeds and big bulbs - fruit and vegetables come from the supermarket - plants grow at night or when we are not watching them.</p>	<p>Explicit: Growing -Sunflower, Narcissus (Seed/bulb), Cress</p> <p><u>Exploring and comparing both seeds and bulbs:</u> Collect seeds from fruit, pumpkin, peas, carrots, sweetcorn, pansy, sunflower, sycamore</p> <p>Bulbs- tulip, daffodil, garlic, onion, snowdrops,</p> <p>Common misconceptions - 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</p>	<p>Explicit reference to include: <u>Common garden plants taught:</u> Pansies, lavender, sweet peas, roses, sunflower, irises, daffodils, snowdrops, bluebells <u>Common wild plants taught:</u> Dandelions, daisies, buttercups, nettles, clover, ivy</p> <p>Common misconceptions -plants are flowering plants grown in pots with coloured petals and leaves and a stem - trees are not plants - all leaves are green - all stems are green - a trunk is not a stem - blossom is not a flower.</p>	<p>Explicit: Using white carnations to understand how water travels up the stem. -Many plants, but not all, have roots, stems/trunks, leaves and flowers/blossom. -The roots absorb water and nutrients from the soil and anchor the plant in place. -The stem transports water and nutrients/minerals around the plant and holds the leaves and flowers up in the air to enhance photosynthesis, pollination and seed dispersal. The leaves use sunlight and water to produce the plant's food. Some plants produce flowers which enable the plant to reproduce. Pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination). This forms seeds, sometimes contained in berries or fruits which are then dispersed in different ways. Different plants require different conditions for</p>	

				germination and growth. Common misconceptions- plants eat food - food comes from the soil via the roots - flowers are merely decorative rather than a vital part of the life cycle in reproduction - plants only need sunlight to keep them warm - roots suck in water which is then sucked up the stem.
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Tier 3 Vocab: EYFS	Tier 3 Vocab: EYFS	Tier 3 Vocabulary: Year 4		Tier 3 vocabulary: Year 4	
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Tier 3 Vocabulary: tree, bush, herb, names of plants they see (Reception - Living things and their habitats)	Tier 3 Vocabulary: tree, bush, herb, names of plants they see (Reception - Living things and their habitats)	Tier 3 Vocabulary: light, shade, Sun, warm, cool, water, space, grow, healthy, bulb, germinate, shoot, seedling, bud, sprout,	Tier 3 Vocabulary: leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, names of trees in the local area, names of garden and wild flowering plants in the local area	---- Vocabulary: reinforced with gardening clubs and outdoor learning experiences	Tier 3 Vocabulary: photosynthesis, pollen, insect/wind pollination, male, female, seed formation, seed dispersal (wind dispersal, animal dispersal, water dispersal), air, nutrients, minerals, soil, absorb, transport
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Children to plant a variety of seeds over the spring/summer to enhance the garden area and the allotment area.

Revisit throughout the year: seeds and bulbs need to be planted at different times of the year (bulbs in Autumn and seeds, generally, in Spring). For these to reach full maturity, they need to complete their life cycle. This will be determined by the plant, not the time allocated to the topic. Once planted, the beds will need to be visited regularly to weed and make observations of growth.

While learning to name and identify plants, the pupils should be drawing on a range of different clues. Many plants change in appearance over the year - losing leaves, buds developing into flowers, flowers developing into seeds or berries. At any particular time, only some of these parts will be present. To ensure correct identification, all parts should be considered. Pupils should therefore visit the same plants throughout the year gathering additional clues for identification.

Skills Progression			
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Skills progression Observation: record their observations by drawing, taking photographs, make observations using their senses and simple equipment, use observations to ask questions ELG -Explore the natural world around them, making observations and drawing pictures of plants and animals. -Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. -Understand some important processes and the changes in the natural world around them, including the seasons and changing states of matter.	Skills progression Using observations and ideas to answer questions. Plant seeds and bulbs and observe over time. Taking photographs to see change	Skills progression Observation: use observation skills to identify and classify. Record through drawings.	Skills progression Record findings using a labelled diagram. Using straightforward scientific evidence to answer simple questions. Gathering, recording, classifying and presenting data in a variety of ways. Setting up simple practical enquiries. (variables given to children) Record findings using simple scientific language Using results to draw simple conclusions through pictures and simple sentences
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