



Science Progression To understand plants

Essential characteristics of scientists	•The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings. •Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations. •Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings. •High levels of originality, imagination or innovation in the application of skills. •The ability to undertake practical work in a variety of contexts, including fieldwork. •A passion for science and its application in past, present and future technologies.	
	Key Knowledge	Key Vocabulary
EYFS 30-50	• Can talk about some of the things they have observed such as plants, animals, natural and found objects. • Developing an understanding of growth, decay and changes over time. • Shows care and concern for living things and the environment.	
EYFS ELG	• Know about similarities and differences in relation to places, objects, materials and living things. • Talk about the features of their own immediate environment and how environments might vary from one another. • Make observations of animals and plants and explain why some things occur and talk about changes.	
EYFS Planting/growing opportunities	• growing and observing a range of fruit/vegetable and wild flowers in outdoor area • planting, growing and looking after a sunflower - who can grow the tallest sunflower? • growing tomatoes, potatoes and pumpkins	
Y1/2	Y1 learning challenge - Which plants would Little Red Riding Hood find in our locality? Science Bug - Y1 Plants (identifying structure) Focus text links - The Flower • Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen. • Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.	• plant • parts of a plant - flowers, leaves, stem, roots • common plants - daffodil, tulip, rose, bluebell, foxglove • tree • parts of a tree - crown, leaves, twigs, branches, trunk, roots • common trees - ash, birch, beech, maple, oak, horse chestnut, sweet chestnut • seed • evergreen • deciduous
Y1/2 Planting/growing opportunities	• no planting and growing necessary to cover these objectives • observations can be made of mature plants	
Y1/2	Y2 learning challenge - How can we grow our own salad? or How can you be the next master chef?	• bulb • germination



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	Y2 Growing plants Focus text links - The Flower The Rabbit Problem - Observe and describe how seeds and bulbs grow into mature plants. - Find out and describe how plants need water, air and a suitable temperature to grow and stay healthy.	- warmth, air (oxygen), water - survive - life cycle - scattered
Y1/2 Planting/growing opportunities	- plant, grow and observe cress and runner beans to explore the requirements for growth - plant, grow and observe salad and vegetable seeds and flowering bulbs (such as daffodils and tulips) to describe how seeds and bulbs grow into mature plants	
Y3/4	Y3 learning challenge - How did that blossom become an apple? Science Bug - Y3 Parts of a plant (structure and function) What plants need Focus text links - The Tin Forest - Identify and describe the functions of different parts of flowering plants: roots, stem, 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 role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	- fruit - pollen, pollination - fertilisation parts of a flower - petal, stamen, carpel - dispersal - nectar
Y3/4 Planting/growing opportunities	- observe the lifecycle of a dandelion - plant, grow and observe mung beans to explore the requirements for life and growth - grow geraniums to explore the requirements for life	
Y5/6	- Relate knowledge of plants to studies of evolution and inheritance. - Relate knowledge of plants to studies of all living things.	- evolve - inherit
KS3	Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms.	