

Science Progression in 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

Year Group	Key Skills	Key Vocabulary
EYFS	• Explore the natural world around them, making observations and drawing pictures of animals and plants • 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 changes in the natural world around them, including the seasons and changing states of matter	
Year 1/2	• 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 • 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	• 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 • bulb • germination • warmth, air (oxygen) • water • survive • life cycle • scattered

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Year 3/4	• 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
Year 5/6	• Relate knowledge of plants to studies of evolution and inheritance • Relate knowledge of plants to studies of all living things	• evolve • inherit
KS 3	• Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms	