Science Progression of Skills and Knowledge PLANTS

Key to understanding this document: Black = National Curriculum objectives Red = Knowledge/Skills to be taught Green = Resources to be used

Area of Learning	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plants		Working scientifically: Using simple observations to identify and classify. 1 Identify and name a variety of common wild and garden plants including deciduous and evergreen tree. Children to see examples of common wild and garden plants e.g. through a walk. Children to record through drawings.	Working scientifically: Using observations and ideas to answer questions. P1 Observe and describe how seeds and bulbs grow into mature plants. Plant seeds and bulbs and observe over time. Taking photographs to see change/ children could create a diary to see change over time.	Working scientifically: Record findings using a labelled diagram. Using straightforward scientific evidence to answer simple questions. P1 Identify and describe the functions of different flowering plants: roots, stem/trunk, leaves and flowers. Identify the function of each part e.g. the roots suck up the water, the stem transports the water, the leaves			

		Working scientifically: Observing closely. P2 identify and describe the basic structure of a variety of common flowering plants, including trees. Label - Stem, petal, flower, leaf, root Trees, branches trunk leaf.	Working scientifically: Performing a simple test choosing one variable. Observing closely using simple equipment. P2 Find out and describe how plants need water, light and a suitable temperature to grow healthy. Plant cress in different conditions e.g. dark, cold, without water. Children to know the difference between growth and germination. E.g. seed needs light to grow but not to germinate.	catch the sun light etc. Working scientifically: Gathering, recording, classifying and presenting data in a variety of ways. Setting up simple practical enquiries. (variables given to children) Using results to draw simple conclusions through pictures and simple sentences. P2 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. Observe the life cycle of a plant and how each function supports the growth of the plant. E.g. Sunflower and dandelion. Compare large trees with small plants (e.g. which will need more water and why?) Children to have a seedling and test in different conditions e.g. dark, light, cold, warm, with fertiliser, without fertiliser, water, without water.			

				Working scientifically: Setting up simple practical enquires. Record findings using simple scientific language. P3 Investigate the way in which water is transported within plants. Carnations in coloured water investigation to see how water is transported in plants. Working scientifically: To make systematic and careful observations. P4 Explore the parts flowers play in the life cycle of flowering plants including pollination, seed		

				formation and seed dispersal. Look at seed dispersion of a Sunflower or dandelion e.g through video clips. Discover how seeds are formed by observing the stages of a plant life cycle over a period of time. Children could dissect pollen from plants. Children investigate different types of fruit seeds and consider how these might be dispersed.			
Key Vocabulary		Leaves, flowers, blossom, petals, fruit, roots, bulb, seed, trunk, branches and stem.	Seeds, bulbs, temperature, mature plants, germination, growth and survival.	Flowering plants, nutrients, air, pollination, seed formation, seed dispersal, life			

		Deciduous trees Evergreen trees		cycle and transported.			
Key Resources		Examples of plants (could be pictures) Discovery walk to study trees/ plants. Labelled Map of Discovery walk. Magnifying glasses. i-pad/ camera	Seeds, cress, bulbs, cotton wool, trays, soil. Discovery walk	Seedlings Carnations Map of discovery walk Food colouring Seeds from fruits e.g. apples, tomatoes, sunflower seeds etc. Flowers to dissect			