Year 3: Plants

Kindness Enjoyment Achievement

Key Concepts:	**Types of Enquiry:**	**Vocabulary:**
Many plants, but not all, have roots, stems/ trunks, leaves and flowers/blossom. Roots: absorb water and nutrients from the soil and anchor the plant in place. Tap roots are just one main root and fibrous roots are lots of little ones. Stem: transports water and nutrients/ minerals around the plant and holds the leaves and flowers in the air to enhance photosynthesis, pollination and seed dispersal. Leaves: Use sunlight and water to produce the plant's food. Some plants produce flowers which enable the plant to reproduce. Pollen, produced by the male part of the flower, is transferred to the female part of other flowers (pollination). *This is covered again in more detail in Y5.* This forms seeds, sometimes contained in berries or fruits, which are then dispersed in different ways. Different plants require different conditions for germination and growth.	<u>Sorting and classifying:</u> Use key to identify flowers, berries and seeds at different times of the year. Classify seeds by how they are dispersed. <u>Fair/ comparative test:</u> Investigate what happens when plants are put in different conditions: eg different soils, effect of fertilisers, different amounts of space: children to investigate own choice of conditions. How does the length of a carnation stem affect how long it takes for the food colouring to dye the petals? <u>Use of secondary sources:</u> Research different types of seed dispersal. Video: pollination <u>Change over time:</u> Effect of putting white carnations or celery in coloured water. What happens to a plant when the leaves or roots are removed? Investigate what happens to plants when they are put in different conditions. <u>Pattern seeking:</u> Length of carnation stem experiment.	Photosynthesis Pollen Insect/ wind pollination Seed formation Seed dispersal- wind, animal, water dispersal Petal Fertilisation Nectar Tap root, fibrous root

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	Working scientifically skills: Questioning: Develop own test for growing conditions. Ask relevant questions. Observing: Observational drawings: seeds, tap and fibrous roots; Compare and contrast different leaves and vein patterns. Identify and classify: Identify leaves using a key Identify flowers using diagrams Testing: Set up different growing conditions for plants. Predicting: What question could we ask next after growing plants in different conditions? Recording: Observational labelled drawings, explanation writing; use of graphic organisers; compare and contrast diagrams; oral presentation. Communicating: Oral feedback from group tests on growing conditions. Concluding: Use results to conclude the best growing conditions for plants.	**How it fits in with the rest of the curriculum:** Y1: 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. Y2: Observe and describe how bulbs and seeds grow into mature plants. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Y3: Recognise that living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago. Y5: Describe the life processes of reproduction in some plants and animals. Y6: Recognise that living things produce offspring of the same kind but normally offspring vary and are not identical to their parents. **Cross curricular links:** Art: observational drawings English: recording and descriptions Geography: Biomes