Year Group: 1 Term: Summer

Science Unit: Plants

National Curriculum objectives

S1.2a Identify and name a variety of plants.

S1.2c Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees

S1.2d Identify and describe the basic structure of a variety of common flowering plants, including trees.

Specific substantive knowledge—what we want learners to know in this year group?

- Trees can be identified as large, woody plants and are either evergreen or deciduous.
- Trees that lose their leaves in the autumn are called deciduous trees. Examples include oak, beech and rowan.
- Trees that shed old leaves and grow new leaves all year round are called evergreen trees. Examples include holly and pine.

The above will also be covered in Autumn through Seasonal Change

- Trees have a woody stem called a trunk.
- The basic plant parts include root, stem, leaf, flower, petal, fruit, seed and bulb.
- Deciduous trees change with the seasons—relate learning to seasonal changes, noticing how some trees lose their leaves in Autumn and they regrow in Spring.
- Growing locally, there will be a vast array of plants which all have specific names. These can be identified by looking at the key characteristics of the plant.
- We grow and harvest vegetables and fruit for food

What prior knowledge is this building upon? What should they focus on to build to age related? (Use with knowledge ladder)

Early Years:

- Plants and trees are living
- Plants have leaves and some have flowers
- Plants grow from a seed
- Parts of a plant include flower, petal, leaf and stem.
- Parts of plants and trees include trunk, branch, twig, roots, stem, flowers and leaves.
- Plants need to be watered to grow (through

Key questions for AFL:

- *What is a tree? What is a plant?*
- *Can you label the different parts of a plant? Can you label the different parts of a tree?*
- *Do trees and plants have any parts the same?*
- *Can you name and identify some different types of plants and trees we find locally?*
- *What happens to different trees when the seasons change?*

Where is this learning progressing to? (Use with knowledge ladder)

- Observe and describe how seeds and bulbs grow into mature plants. (Y2 - Plants)
- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. (Y2 - Plants)
- Identify and name a variety of plants and animals in their habitats, including micro-habitats. (Y2 - Living things and their habitats)
- Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants)
- Investigate the way in which water is transported within plants. (Y3 - Plants)
- Classification keys are scientific tools that aid the identification of living things (Year 4)
- Flowering plants reproduce sexually (Year 5)

Common misconceptions

Some children may think:

- 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.

Working scientifically focuses

S1.1a Ask simple questions and recognise that they can be answered in different ways

Sc1. 1b Observe closely, using simple equipment

S1.1c Identify and classify

What types of enquiry will we be undertaking?

Identification and classification, Observation, Observations over time

Process for enquiry or investigation

- Collect leaves from the outside environment. Children to group them based on their characteristics. Use leaf image mat to match found leaves to images to identify what tree they may have come from. Children to collect leaf rubbings to support their observations of the properties for different leaves. (e.g. thicker veins, waxy texture). Discuss how leaf characteristics might help us identify whether it comes from evergreen / deciduous tree.
- Bark rubbings. Notice that trees have trunks and plants have stems - use information to sort plants from trees.
- Photograph plants in local environment. Label and describe the basic structure of a variety of common plants. Dissect and label parts of a flower and plant. Use iPad app to identify different plants.
- Notice changes over time to plants including in Autumn when leaves fall off—observe how trees are changing and how this can help us distinguish the type of tree they are (evergreen / deciduous). Revisit in Spring when leaves are growing again on deciduous trees.

How does it help learners develop their knowledge?

Children using features of plants to practically identify and sort will allow them to see differences between their types. Looking at component parts of the tree / plant in its environment will also make knowledge real and sticky to them, through the practical learning.

Key Vocabulary

Tree, evergreen, deciduous, leaf, pinecone, needles, acorn, conker, fruit, blossom, trunk, branch, leaves, flowers, seed, petal, stem, stalk, bud, bulb, root, weed, living, grow, oak, beech, rowan, holly and pine. Names of trees in the local area. Names of garden and wild flowering plants in the local area. Names of vegetables growing on the allotment.

Name, label, question, identify, group, classify, watch, observe