

Subject: Science

Year 1: Introduction to Plants (basic structure)

NC/PoS:

- 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.

N.B. children use magnifying glasses when observing plants outside

Prior Learning (what pupils already know and can do)

Know the year is split into seasons and name them. That during the year a plant's growth changes.

End Goals (what pupils MUST know and remember)

- Know flowering plants, consist of leaves, flowers (blossom on trees), petal, roots, bulb or seed, trunk, or stem
- Know wild plants, grow without human intervention, and garden plants are grown by human intervention
- Know the wildflowers – dandelion, buttercup, thistles, daisy, poppy
- Know the garden flowers – rose, tulip, marigold
- Name deciduous trees – ash, oak, beech, silver birch
- Know deciduous trees shed their leaves in winter to conserve energy
- Know evergreen trees, keep their leaves throughout the year
- Name evergreen trees pine, spruce, cedar

Key Vocabulary: differences, similarities, wild, leaves, shape, compare, stem, flower, roots, leaves, petals, blossom, trunk, deciduous, evergreen, holly, ash, oak, beech, silver birch, pine, spruce, cedar, wild, nettle, dandelion, buttercup, daisy, garden, rose, tulip, marigold

Session 1:

Use resources from Kapow Session 1: What is a plant?

Review prior learning- What are seasons? Name them. Discuss the plants children have met before.

Watch careers: <https://www.youtube.com/watch?v=VaK9pgORWkc>

(Miss out the 'plant hunt')

In preparation for the next few sessions plant some beans in a clear container (one with soil and the other with white paper towels to see the roots etc.)

It can be done in a sandwich bag taped to the window!

Keep checking to see the roots appear etc. Could keep a class record.

N.B. wash hands after touching compost

Vocabulary: flower, roots, leaf, plant, seed, stem

Session 2:

Use resources from Kapow lesson 2: Parts of a Plant

Recap and recall: Name the seasons and how plant growth changes during the year

- To identify parts of a flowering plant.
- To draw and label a diagram.

LO: To observe and describe the structure of a plant

Children learn flowering plants, consist of leaves, flowers (or blossom on trees), petal, roots, bulb or seed, trunk, or stem

Draw and label two plants (include a tree for blossom). Show roots from other potted plants so children can see the differences

Vocabulary: stem, flower, roots, leaves, petals, blossom, trunk

Session 3:

Use resources from Kapow lesson 3: Wild and garden plants- This session focus on wild plants.

Recap and recall: what is the structure of a plant?

Children learn wild plants, grow without human intervention, and garden plants are grown by human intervention

Children learn to identify the following wildflowers – dandelion, buttercup, thistles, daisy, poppy

LO: To observe plants in the local environment

LO: To identify and name wild plants in the school grounds

- Go outside looking for wild plants grown in the school garden and the school field- pull up weeds to look at roots to compare them.
- Has an identity sheet for wild plants – where were they found?
- Collect leaves and compare – what are their shapes? How are they similar and different?
- Which plants have flowers? How are they similar and different?

Vocabulary: differences, similarities, wild, leaves, shape, compare, dandelion, buttercup, thistles, daisy, poppy

Session 4:

Use resources from Kapow lesson 3: Wild and garden plants- This session focus on garden plants.

Recap and recall: Where are plants found in our school environment?

LO: To identify and name wild plants in the school grounds

Children learn that garden plants are grown by human intervention.

Children learn to identify the following garden plants- roses, tulips and marigolds.

Use the grouping flowers activity to compare wild plants to garden plants. Focus in particular on roses, tulips and marigolds (ideally have some to show the children)

Vocabulary: differences, similarities, leaves, shape, compare, rose, tulip, marigold

Session 5:

Use resources from Kapow Lesson 4: Deciduous and evergreen trees- focus on deciduous trees in this session

Recap and recall: Name some common British wildflowers and garden flowers.

Name some deciduous trees and those that are evergreen

Children learn the name of deciduous trees – ash, oak, beech, silver birch, alder and that deciduous trees shed their leaves in winter to conserve energy.

LO: Comparing types of trees

Why do some trees lose their leaves?

Explore local environment and take photographs. Name the trees, use tree spotter guide.

Vocabulary: deciduous, holly, ash, oak, beech, silver birch, alder,

Session 6:

Use resources from Kapow Lesson 4: Deciduous and evergreen trees- focus on evergreen trees in this session

Recap and recall: Why do some trees lose their leaves?

Evergreen trees keep their leaves throughout the year and examples are: pine, spruce, cedar.

Sort trees into deciduous and evergreen.

Vocabulary: evergreen, pine, spruce, cedar

Link to career:

<https://www.youtube.com/watch?v=VaK9pgORWkc>

Plant pathologist

Floriculturist

horticulturist

plant geneticist

forestry consultant

Scientists who have helped develop understanding in this field:

Alexander von Humboldt <https://www.youtube.com/watch?v=EzakQuKqBeQ>

