

## Science – Year 1

### Plants

*Are all plants and trees the same?*

*Are there plants that are in flower in every season? What are they?*

NC objectives - areas of study	End point of area of study	Vocabulary		
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	Children are able to go outside and name common plants and trees found on the school grounds. They will be able to do this throughout the year, linking to their seasonal change learning and look at how plants and trees change and grow over the year.  Using first hand experiences, children will name common flowering plants and trees and identify the basic structures of these through labelling- orally and written.	Basic	Adventurous	Technical
		tree, bush, herb, fruit, plant, seed, garden, berry, branches, plants leaves, leaf` flower, petals	names of trees in the local area, names of garden and wild flowering plants in the local area	evergreen deciduous blossom, bark roots, buds, bulb, trunk, stem, stalk

### Knowledge

Substantive Knowledge	Disciplinary Knowledge
<ul style="list-style-type: none"> <li>● Know that science is a way to understand our world by carefully thinking about it and testing our guesses with observations and experiments (retrieval)</li> <li>● Lesson 1</li> <li>● LO To name common flowering plants.</li> <li>● Plant, flower, stem, stalk, petal, leaf</li> <li>● Rose, sunflower, daffodil, crocus</li> <li>● Know a rose bush, a sunflower and a dandelion by sight (identify flowering plants in school grounds at the time- crocus, grape hyacinth etc)</li> </ul> <p style="color: blue;">Discuss what the most beautiful flowers are in the local environment.</p> <ul style="list-style-type: none"> <li>● Lesson 2</li> <li>● LO To know seeds grow into plants.</li> <li>● Seeds, sunflower</li> <li>● plant sunflower seeds to nurture and watch them grow, along with cress seeds, carrots and tomato.</li> </ul>	<p><b>Working as a biologist to explore plants in the world around them, they will develop the skills of a botanist as they explore and name plants.</b></p> <p><b>Explore</b>                      Pupils explore the school grounds to identify and name plants, trees and flowers found there. Through first hand experience they plant different seeds and nurture them to watch them grow. This could include plants to eat for example cress, carrots and tomatoes, flowering and non-flowering plants for example sunflowers. There should be different plants in the classroom all year round for children to observe, discuss, label and explore using magnifiers. Pupils ask questions about plants and trees and suggest ways they can explore to answer them.</p>

- How will the seeds be nurtured and cared for? What will be observed?

- Lesson 3

- LO To know the names of different trees.

- **Tree, branch, bark, roots**

- Know an oak tree, a birch tree and a horse chestnut tree by sight
- Children are introduced to the different types of tree and how they can identify the different ones according to their leaves and fruit-acorns, conkers etc

- Lesson 4

- LO To know how to identify trees in the school grounds.

- **Tree, branch, bark, roots**

- Know an oak tree, a birch tree and a horse chestnut tree by sight (identify trees in the school grounds at the time)
- This could include a walk to the local woods to further develop this skill.

Be seen to respond to a stimulus and explain in simple terms or through body language.

- Lesson 5

- LO To know the difference between evergreen and deciduous trees.

- **Evergreen, deciduous**

- Know that evergreen trees maintain their leaves throughout the year and that deciduous trees shed their leaves in autumn

- Lesson 6

- LO To know the parts of a flowering plant.

- **Roots, stem, petal, flower, leaves**

- Know that a flowering plants consist of roots, stem, leaves and flowers,
- explore different plants and flowers to observe how these can be different in each

- Lesson 7

- LO To know the parts of a tree

- **Trunk, bark, branch, roots**

- Know that a trees stem is called a trunk (explore different plants and trees to observe how these can be different in each)

- Lesson 8

## Similarities and Differences

Using first hand experiences of real plants, children label them and discuss their observable differences, how are stems different and the same? What do they notice about the leaves of different trees? Children gather and record data using photographs tat they have taken to identify flowers and trees and answer questions about them.

Visit/ visitor to the woods/ garden centre

- LO To know and name the parts of different plants
  - **Stem, roots, stalk, leaves, flower,**
  - Identify parts of different plants- use seeds planted week 1 to identify growth through observations.
- Consider how God created each part of the flower as something precious
- Lesson 9
  - LO To know how seeds grow into plants
  - **Seeds, plants, leaf, root, shoot**
  - use seeds planted week 1 to identify growth through observations.
  - Children are able to sequence images of growth and talk about it using the correct scientific vocabulary to describe the growth.

### Concepts

**Biology**

**Chemistry**

**Physics**

### SKILLS

1. Compare

2. Explore

3. Identify

4. describe

5. classify

6. Question

7. observe

8. test

9. record

10. research

### ASSESSMENT

**KNOW MORE, REMEMBER MORE, DO MORE...**

In this unit of learning, progress has been made when a learner knows more. This 'distance travelled' from the starting point is evidenced through them remembering more and doing more: in books, low stakes quizzes, retrieval, use of mind maps, answering the big question and being able to feel more confident about this unit.