Science

Year 3 and 4

Spring 2

Topic **Plants**

Rationale

Teaching Year 3 and 4 students about plants using these questions is super important for their learning and growth. Questions like "What do plants need?" help kids understand the basics of what keeps plants alive, like sunlight, water, and nutrients. Asking "Do the different parts of the plant have a function?" gets them to see how roots, stems, leaves, and flowers all play a role in helping the plant grow and thrive. When they learn "What are roots?" they start to see how plants interact with the soil and get the nutrients they need. Exploring "How do plants transport water?" introduces them to the idea of internal systems, like how water moves through a plant. "How do plants reproduce?" teaches them about life cycles and how plants make more plants, touching on ideas like pollination and seeds. Finally, "How are seeds dispersed?" shows them the cool ways plants spread their seeds using wind, water, or animals. These questions not only make learning fun and interesting but also build a strong foundation for understanding nature and science as they grow older. We teach this in the Spring term as this allows the children to plant their own seeds and observe real-life examples.

NC Objective

- identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- 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
- investigate the way in which water is transported within plants
- explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Links to other Subject/Topics.
Computing – Data, multimedia

Inspiration for Aspiration
Florist, growing produce, botanist, environmental scientist

Key Content Year 3

- **What do plants need?**
- **Do the different parts of the plant have a function?**
- **What are roots?**
- **How do plants transport water?**
- **How do plants reproduce?**
- **How are seeds dispersed?**

Key Content Year 4

- **What do plants need?**
- **Do the different parts of the plant have a function?**
- **What are roots?**
- **How do plants transport water?**
- **How do plants reproduce?**
- **How are seeds dispersed?**

Concepts

Science	1	2	3	4	5	6
Plants						
Animals, including Humans						
Materials						
Light						
Sound						
Electricity						
Forces						
Earth and Space						

Skills and Knowledge Year 3

- Asks simple questions and recognise that they can be answered in different ways.
- Observe closely, using simple equipment
- Identify and classify

Skills and Knowledge Year 4

- Asks simple questions and recognise that they can be answered in different ways.
- Observe closely, using simple equipment
- Identify and classify

	• Record findings in a variety of ways.
Year 3 and 4 Topic Vocabulary plant tree flower roots stem leaf seed bulb nutrients pollination fertilisation formation dispersal	**Year 3 and 4 Scientific Vocabulary** Investigate, test, observe, equipment, describe, check, key, sequence, label, diagram, discuss, propose, question, experiment compare similarities differences
By the end of the topic <u>Year 3</u> children will with support:- • Be able to identify and describe the functions of different parts of flowering plants • Explain the requirements of plants for life and growth and how they can vary from plant to plant • Investigate how water is transported within plants • Explain the part that flowers play in the life cycle of plants including pollination, seed formation and seed dispersal	**By the end of the topic <u>Year 4</u> children will: -** • Be able to identify and describe the functions of different parts of flowering plants • Explain the requirements of plants for life and growth and how they can vary from plant to plant • Investigate how water is transported within plants • Explain the part that flowers play in the life cycle of plants including pollination, seed formation and seed dispersal
Assessment Grammarsaurus Cumulative Quiz and Assessment	