Our Science curriculum aims to enthuse children and hep them to be curious and develop a sense of excitement about the world. Through a range of teaching, learning and extra-curricular opportunities, children will develop scientific knowledge and conceptual understanding to recognise the uses and implications of Science, today and for the future. We encourage children to ask their own questions; predict how things will behave and analyse causes, using Science to explain what is happening.

*Inspiring and enabling our school community to live life to the full*

# YEAR 3 SCIENCE

## Flowering Plants and Plant Growth

**Characteristics of an Effective Learner**

Courage
Commitment
Collaboration
Creativity
Curiosity

**Prior Learning:**

- Children explore animals' diets and classify them into carnivores, herbivores and omnivores in year 1
- Children Know how animals in all habitats depend on plants and each other for food by creating simple food chains in year 2
- In year 3, children explore different types of food, sorting them into different categories and planning meals. They begin to understand that different people may have different energy/nutritional requirements e.g. athletes or explorers.

**Key Vocabulary taught in this unit:**

Compare, compete, feature, function, space, transport, investigate, research, adaptation, adapted, anchor, capture, nutrient, comparative test, explain/explanation, enquiry, identify, measure, observe, observing over time, predict/prediction, consumer, flower, food chain, habitat, producer, roots, seed, stem, sunlight.

**Key Questions:**

Q1: What do leaves do?
Q2: What do roots and stems do?
Q3: What are the functions of the parts of a flowering plant?
Q4: What happens if plants do not have enough space?
Q5: How are plants different?

**Intent: What do we want the children to know and be able to do by the time they complete this unit?**

1: Leaves capture sunlight. The energy from the sunlight is used to produce the plant's food. Some of this food is used to make the plant grow.
2: Roots anchor the plant into the soil. Roots absorb water and minerals from the soil. This water is transported to the leaves and flowers via small tubes in the stem. The stem also provides support for the plant and holds the leaves and flowers up.
3: Leaves have tiny little holes in them which allow air into the plant. The energy from the sunlight is used to turn air and water into the plant's food.
4: When plants are overcrowded, they compete with each other for sunlight, water and nutrients. Plants which are able to get more sunlight, water and nutrients will grow faster and bigger than the others.
5: Different plants live in different habitats. Different plants have different-shaped leaves, stems and roots, and the parts can have different functions depending on the conditions in that particular habitat. Plants are adapted to the habitat in which they live.

**Working Scientifically:**

- Asking relevant questions and using different types of scientific enquiries to answer them.
- Setting up simple practical enquiries, comparative and fair tests.
- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.
- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Using results to [draw simple conclusions,] make predictions for new values, [suggest improvements and raise further questions].

**Impact / Outcome: What will the final product / result be?**

Children will learn about the methods scientists use to build scientific knowledge.

They will learn that scientists often come up with new ideas that might explain how something works and plan tests to find out if their ideas are correct.

They will develop an understanding of the following types of enquiry: comparative and fair testings, observing changes over time, research.

**P4C Inquiry (where appropriate):**