St James' Church of England Primary School
Science Overview Sheet

Year 2 – Plants

Rationale: Pupils should use the local environment throughout the year to observe how different plants grow. Pupils should be introduced to the requirements of plants for germination, growth and survival, as well as the process of reproduction and growth in plants.

Note: Seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them.

Pre-unit task: Knowledge Organiser Quizzes

Working Scientifically:

- *Observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth.*
- *Setting up a comparative test to show that plants need light and water to stay healthy.*

.**Statutory Requirements**:

- **Observe and describe how seeds and bulbs grow into mature plants.**
- **Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.**
- Plants are living and eventually die.

(NB: it is important to note that some plants reproduce without seeds but this more abstract concept will be introduced in UKS2)

Overview:

Lesson 1: What Do Plants Need to Grow? - To design and set up a test to find out what plants need to stay healthy.
Lesson 2: What is Inside a Seed? - To look closely at the parts of a seed that will grow into a plant and explain how it will germinate.
Lesson 3: Life Cycle of a Plant - To describe the life cycle of a plant.
Lesson 4: Classification Keys - I can show the characteristics of living things in a table and a key.
Lesson 5: What Do Plants Need to Stay Healthy? - To describe what happens if plants do not get all the things they need.
Lesson 6: What Do Plants Need to Stay Healthy? - To explain what plants need to grow and stay healthy.

Cross Curricular Links

Resources

• Soil • Small pots • Fast growing seeds such as cress or beans • Fully grown plants (one healthy, one beginning to wilt through dehydration) • Cotton wool • Bulbs or different seeds for class plant Magnifying glasse. • Various types of seeds to observe, such as pumpkin seeds, cress seeds and beans - enough for the class to handle. • Large beans, such as kidney beans - at least one per child. Beans should be pre-soaked for 24 hours. (You can use frozen beans which will not need to be soaked, but will need thawing.) • A piece of paper or paper towel, per child, to place their seed on as they dissect it.

Assessment

Most Children will: • Children can suggest what they think a plant needs to grow and stay healthy. • Children can dissect and observe a seed, explaining which parts will grow into a plant and which part is its food. • Children can order the life cycle of a plant and begin to explain what happens at each stage. • Children explain that plants need water, light and a suitable temperature to grow and stay healthy.

Less Able Children will: • With support, children can suggest what they think a plant needs to grow and stay healthy. • With support, children can dissect and observe a seed, explaining which parts will grow into a plant and which part is its food. • With support, children can order the life cycle of a plant.

More Able Children will: Children can order the life cycle of a plant and explain what happens at each stage. They can use what they know about a plant's life cycle to suggest which stage a plant is at in its life cycle. • Children can suggest what they think a plant needs to grow and stay healthy. They begin to understand how a lack of these things can affect a plant. They can also notice links between cause and effect with support.