

YEAR 2 UNIT 6: Young Gardner's (Plants)

Enquiry Question: How do plants grow?

Related units: Year 1, Unit 2 – Celebrations: Can you name the parts of the plant?;
Year 3, Unit 3: How does your garden grow?

Unit overview

National Curriculum link Year 2: Plants

Pupils will observe and describe how seeds and bulbs grow into mature plants. They will find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Where possible, they should observe the growth of flowers and vegetables that they have planted. They should become familiar with common names of flowers, examples of deciduous and evergreen trees, and plant structures (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem). Pupils might work scientifically by: observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees. Pupils might keep records of how plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.

Assessment (Expectations)

1. Name the parts of a plant
2. Explain what a plant needs to grow.
3. Name a vegetable plant, herb and flower.
4. Explain the steps a plant takes to germinate.

Scientific vocabulary

- Bulbs
- Corms
- Germinate
- Root
- Stem
- Tuber
- Compost
- Leaf
- Plant
- Seed
- Seedling
- Soil
- Properties

Activities and Working Scientifically

Grow your own

- Asking simple questions and recognising that they can be answered in different ways, Identifying and classifying

What do seeds need for germination?

- Using their observations and ideas to suggest answers to questions, gathering and recording data to help in answering questions

How do seeds grow?

- Observing closely, using simple equipment, performing simple tests

Make newspaper plant pots

- Asking simple questions and recognising that they can be answered in different ways

Cross-curricular links

Writing

- Compose instructions for growing plants – orally and then write sentences.

Maths

- Choose and use appropriate standard units to estimate and measure height of plants.
- Compare plant heights.

Teacher knowledge

Planting masterclass:

The aim of this topic is for children to develop an understanding of plants through gardening, which gives a purpose to their science. Seeds are dormant until the conditions are right (for germination). Seeds need water, oxygen, and the right temperature to germinate. Most seeds do not need light but some do to start germination off, e.g. poppy seeds. In the process of germination the root is the first to grow from the seed, it grows downwards and helps to hold the plant in the soil. The root also helps the seedling to take water from the soil (and nutrients, but this is not needed for Key Stage 1). Plants, like people and other animals, need air, water and food to grow. People and animals get their food by eating it. Plants are different because they make their own food, but they need air, water and sunlight to make their food. That's why plants need light, warmth and water to grow well. Keeping plants healthy and strong is an important part of gardening. Cloches are often used to help grow young plants (seedlings). They are really mini green houses and designed to protect seedlings from wind, heavy rain and frost and keep the air around the seedlings warm. They also keep out garden pests, such as slugs.

Misconceptions:

- That all plants need the same things to grow (this is dependent on the type of plant).

Resources

www.bbc.co.uk/gardening/gardening-with-children/

www.rhs.org.uk/education-learning/gardening-children-schools

www.saps.org.uk/primary/teaching-resources/236-living-processes-and-what-plants-need-to-grow

Children's miniature gardens

- www.google.com/search?q=childrens+miniature+gardens&tbm=isch&tbo=u&source=univ&sa=X&ei=18FGUvfNEcPW7QaL3YCIBw&sqi=2&ved=0CC0QsAQ&biw=1280&bih=687&dpr=1

Time lapse plant growth

- www.youtube.com/watch?v=fPTJ3qD1ikk
- www.youtube.com/watch?v=LICDb8nM5rs
- www.thekidshouldseethis.com/post/18800462609