

## Science: Plants (How seeds and bulbs grow) Unit 2

**Definition:**

a living organism of the kind exemplified by trees, shrubs, herbs, grasses, ferns, and mosses, typically growing in a permanent site, absorbing water and inorganic substances through its roots

**Biology definition:** The word **biology** is derived from the greek words /bios/ **meaning** /life/ and /logos/ **meaning** /study/ and is **defined** as the science of life and living organisms. An organism is a living entity consisting of one cell e.g. bacteria, or several cells e.g. animals, plants and fungi.

**POS:**

Observe and describe how seeds and blubs grow into mature plants

Describe how plants need water, light and a suitable temperature to grow and stay healthy

**Prior learning:**

- 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.

Links to other science topics:

Plants: year 1 and 3

Living things: year 4 and 5

**Disciplinary concepts:**

**Growth:** what do plants need to help them grow well?

**Cause and effect:** why don't all seeds and bulbs grow?

**Common misconceptions:**

- plants are not alive as they cannot be seen to move
- seeds are not alive
- all plants start out as seeds
- seeds and bulbs need sunlight to germinate.

**Core Knowledge:**

Plants may grow from either seeds or bulbs. These then germinate and grow into seedlings which then continue to grow into mature plants. These mature plants may have flowers which then develop into seeds, berries, fruits etc. Seeds and bulbs need to be planted outside at particular times of year and they will germinate and grow at different rates. Some plants are better suited to growing in full sun and some grow better in partial or full shade. Plants also need different amounts of water and space to grow well and stay healthy.

**Wider Knowledge:**

- Adaptations of plants around the world

**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 needs light and water to stay healthy.

**End Goals:**

- Made close observations of seeds and bulbs and can talk about them.
- Knows from direct observation that seeds and bulbs do not need light to germinate but they do need some warmth.
- Observed how seedlings grow differently according to the light level.
- Through the year, observed a range of seeds and plants growing to maturity, although they are also aware that not all seeds and bulbs that were planted had the right conditions to be healthy and survive.

**CPD:** Reach out CPD

Science Association / STEM website / Explorify / National Trust