

Previous Knowledge

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.

Project Hook or 'Wow' memory

Growing different seeds and plants.

The key skills we want pupils to use during this topic:

I can observe closely and use simple equipment.

I can gather and record data to help in answering questions

I can perform simple tests

Learning Steps

Key Knowledge (answers)

What do seeds need to grow? (Observing over time)

Plants need water, light and the right temperature to grow and stay healthy.

What is inside a seed or bulb? (Identifying and classifying)

Bulbs have fleshy scales that contain all the food that a plant needs to grow. Seeds have the beginnings of a new plant inside it along

What do plants need to stay healthy? (comparative testing)

Plants need water, light and a suitable temperature to grow. Seeds need water and the right temp, but don't need light as they have their own food source.

Who are Tim Smit and Nicholas Grimshaw? How can a greenhouse help plants grow? (Research and observing over time)

Tim Smit is a business man and plant designer. In 1995, he wanted to collect and showcase amazing plants from tropical rainforests around the world. He decided to build a series of massive greenhouses that he called biomes. Nicholas Grimshaw designed the biomes. In 2001, the biomes were opened to the public. Together, the biomes and gardens are known as the Eden Project. Greenhouses can give plants sunshine, warmth and water at anytime of the year.

How do plants grow in hot, dry and cold places? (Research)

Plants adapt to their habitat (adaptation) to survive. Plants in the rainforest have waxy leaves so the water runs off of them. Cactus have thick, waxy skin to protect them from the heat and wide shallow roots to take water from the surface of the sand. Plants grow low and close together to protect themselves from the wind by trapping pockets of air. They usually have hairy stems and tiny hairs on their leaves to trap heat, and their leaves are thin and waxy to reduce water loss through transpiration.

Key vocabulary

Sunlight

All plants need light from the sun to grow well. Some plants need lots of sunlight. Some plants only need a little sunlight.

Water

All plants need water to grow. Without water seeds and bulbs will not germinate.

Temperature

Temperature is how warm or cold something or somewhere is.

Nutrition

Food or nourishment. Plants make their own food in their leaves using sunlight.

bulbs

A **bulb** is the part of some plants, mostly under the dirt, that stores food while the plant is resting from growing (a storage organ)

seedlings

a young plant grown from **seed**

germinate

When all the conditions are right, the seed soaks up water and swells, and the tiny new plant bursts out of its shell.

Statutory Requirements

Pupils will be taught to:

- 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.

