



Science Knowledge Organiser

Year: 3 Term: 5 Topic: Parts of a plant and how they produce food

Prior knowledge/key knowledge

Prior knowledge Year 2	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.
Flower	A flower is bright and colourful to attract insects. The flower is responsible for the reproduction of plants.
Leaves	Leaves contain chlorophyll. The leaves are the powerhouse of a plant. They capture sunlight and turn it into food for the plant.
Stem	The stem holds up the plant. On a tree we call this the trunk. The stem is also a transport system for water and nutrients.
Roots	The roots help to anchor the plant into the soil. This stops it from falling over or being blown down by the wind. Roots also draw water from the soil.
What do plants need to grow?	Plants need light, water, air and space to grow. They draw nutrients from the soil that help them to stay healthy.

Vocabulary

Transpiration	How water moves around a plant, from the roots to the leaves and petals.
Reproduction	The process required to make a new plant. In a flowering plant, this is achieved when the seeds are pollinated.
Nutrients	Nutrients help a plant to grow strong and healthy. A plant's main source of nutrients is the soil it is planted in. The three main nutrients for plants are nitrogen, phosphorus and potassium.
Photosynthesis	Photosynthesis is a chemical reaction that takes place inside a plant, producing food for the plant to survive. Carbon dioxide (from the air), water and light are all needed for photosynthesis to take place. Photosynthesis happens in the leaves of a plant.
Chlorophyll	Chlorophyll can be found in leaves. It is a green pigment that absorbs the light that plants need to photosynthesise.



Key skills /investigative focus

Key skills	Comparative and fair testing, observation over time, pattern seeking.
Pupil -led Investigation	How is water transported around a plant? How does transportation of water vary from one plant to another?

Big Questions/Challenging Perceptions



Can you explain the similarities and difference between a green plant stem and a tree trunk?

