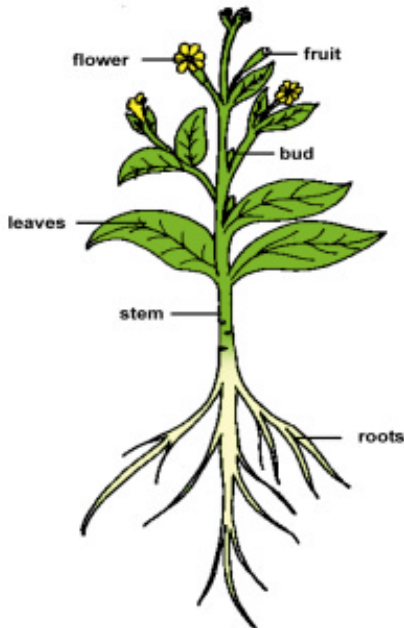


Plant Life

Studying Plants

The study of plants is called Botany.



Roots

The water and raw materials that the plant needs for making food are absorbed through the roots. Roots, as well as storing food, also anchor the plant in the ground.

Stems

The stems bring the water and raw materials from the root to the leaves, as well as bringing the food made in the leaves to other parts of the plant. Not all stems stand up straight; some run along the ground while others climb.

Leaves

Leaves are often used to identify plants. They are an important part of the plant as they gather energy from the sun. Through their leaves plants purify the air. They take in carbon dioxide, which they build into sugars and other foods, and send out pure oxygen. This process is called photosynthesis. Leaves have a network of veins. Down the centre of the leaf is the mid-rib; veins branch from this mid-rib and lesser veins branch off again from these. This

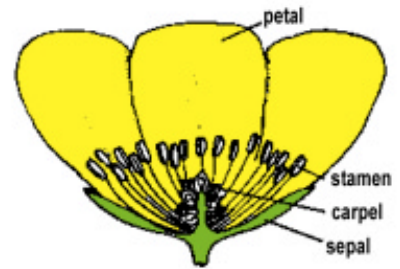
network of veins brings raw materials from the roots, through the stem, and distributes them throughout the leaves where they are combined into food. The veins then distribute this food throughout the plant. Some plants store their food in special leaves packaged together in fleshy bulbs (in the case of Bluebells) or root-like rhizomes (in the case of Yellow Flag).

Flowers

Flowers are the brightly coloured parts of a plant, but looking beautiful is not their main purpose. A flower produces the seeds from which new plants develop. In some cases the "flowers" are actually coloured leaves, with only very small flowers producing the seed. Brightly coloured, the flowers attract insects and other animals to help with pollination. Nectar may also be produced to help attract animals, such as bees. Some flowers are male and some are female, while others are both male and female.

The Structure of a Flower and How it Reproduces

A typical flower is made up of four different parts arranged in circles, one inside the other. The outer circle, the calyx, is made up of leaf-like sepals. These sepals are usually green and, while in bud, they envelope the flower, protecting it. When they fold back they reveal the petals and inside these are the male stamens, which can vary in number from two to several hundred. Each stamen consists of a stalk (called a filament) and a sac (called an anther) that contains pollen. In the centre of the flower are the carpels, which are made up of the stigma, style and ovary. The style is a stalk which is topped by the stigma. These together are the female pistil. When the stigma is ripe it has a sticky surface which catches pollen grains. Pollination takes place when the cells from the pollen fuse with the ovule cells in the ovary at the lower end of the style. It is then that the ovules develop into the seeds from which new plants grow. When a plant grows, flowers, seeds and dies all in one year it is called an annual. When the plant takes two years to complete its life cycle, producing seeds in the second year, then it's a



biennial. When the plant lives on for many years, each year producing seeds, then it's a perennial.

Pollination

In plants that self-pollinate the pollen from the stamen often just falls on the stigma of the same flower and stays there. However in plants that don't self-pollinate the pollen needs to be carried from the stamens of one plant to the stigma of another. This is normally done by the wind or by insects or other animals. Plants that wind-pollinate, including grasses and grains, have flowers that are neither brightly coloured nor sweetly scented. This is because these qualities serve no purpose. The flowers that need the help of insects and other animals to pollinate have more developed petals and scents and some produce nectar to attract such insects as bees. While collecting the nectar, bees are brushed with pollen, some of which in turn rubs off on to the stigma of the next plant it visits. This transfer of pollen from one flower to another is called cross-



Photo: © Robbie Murphy

Spring Highlights!

Bluebells & primroses

Spring is a wonderful time as this is when gardens and hedgerows spring back to life! Daisies, which are present nearly all year round, are joined by snowdrops in winter and early spring. Wild daffodils, violets, bluebells and primroses hang around for most of the spring followed by Sea pink along the coast in late spring. Trees also have a flash of colour at this time of year with catkins appearing on the birch, poplar and willow trees and spikes of white flowers on the horse chestnut in April.

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