

Flower

A flower is a special kind of plant part. Flowers are also called the bloom or blossom of a plant. The flower grows on a stalk – a thin node – which supports it. Flowers have petals. Inside the part of the flower that has petals are the parts which produce pollen and seeds.

Flowers are the reproductive structure of flowering plants, which are plants of the division Magnoliophyta, also called the Angiosperms.

In many plants, a flower is its most colourful part. We say the plant 'flowers', 'is flowering' or 'is in flower' when this colourful part begins to grow bigger and open out. There are many different kinds of flowers in different areas in the world. Even in the coldest places, for example the Arctic, flowers can grow during a few months.

Flowers may grow separately on the plant, or they may grow together in an inflorescence.



A poster with flowersloo of flowers produced by twelve species of flowering plants from different families

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Structure of flowers

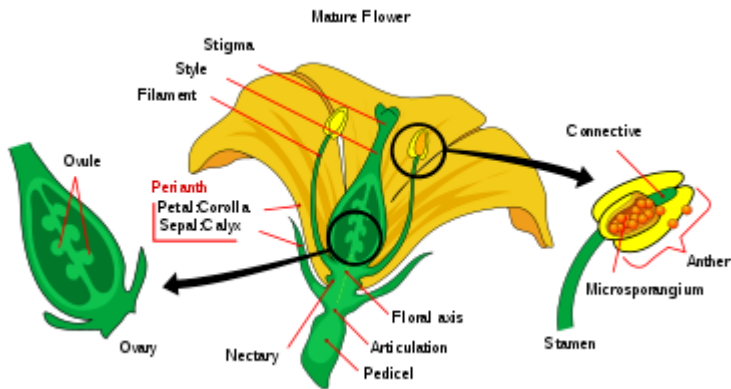


Diagram of flower, cut open to show the parts

To investigate the structure of a flower, it must be dissected, and its structure summarised by a floral diagram or a floral formula. Then its family can be identified with the aid of a flora, which is a book designed to help you identify plants.

Four basic parts

Flowers have four basic parts, from the outside in they are:

1. The perianth, the vegetative parts
 1. The calyx: the outermost whorl consisting of units called sepals. These are often green and enclose the rest of the flower in the bud. They may be absent, or they may be petal-like in some species.
 2. The corolla: the petals, usually thin, soft and often colored to attract animals that help pollination.
2. The reproductive parts
 1. The androecium, the male part, is the stamens
 2. The gynoecium, the female parts,



Aconitum flower dissected to show its internal structure

Although this arrangement is typical, plant species show a wide variation in floral structure.^[1] The modifications produced in the evolution of flowering plants are used by botanists to find relationships among plant species.

Flowers are an important evolutionary advance made by flowering plants. Some flowers are dependent upon the wind to move pollen between flowers of the same species. Many others rely on insects or birds to move pollen. The role of flowers is to produce seeds, which are contained in fruit. Fruits and seeds are a means of dispersal. Plants do not move, but wind, animals and birds spread the plants across the landscape.

Since the ovules are protected by carpels, it takes something special for fertilisation to happen. Angiosperms have pollen grains comprising just three cells. One cell is responsible for drilling down through the integuments, and creating a passage for the two sperm cells to flow down. The megagametophyte^[2] has just seven cells. Of these, one is the egg cell; it fuses with a sperm cell, forming the zygote. Another cell joins with the other sperm, and dedicates itself to forming a nutrient-rich endosperm. The other cells take auxiliary roles. This process of "double fertilisation" is unique and common to all angiosperms.

Evolution of flowers

Flowers are modified leaves possessed only by the flowering plants (angiosperms), which are relatively late to appear in the fossil record.

The earliest known fossils of flowers and flowering plants are from 130 million years ago, in the Lower Cretaceous.^{[3][4]} The flowering plants have long been assumed to have evolved from within the gymnosperms but the known gymnosperms form a clade which is distinct from the angiosperms. It has been concluded that the two clades diverged (split) some 300 million years ago.^[5]

Flowers for people

As decoration

Flowers have long been admired and used by humans. Most people think that flowers are beautiful. Many people also love flowers for their fragrances (scents). People enjoy seeing flowers growing in gardens. People also enjoy growing flowers in their backyards, outside their homes. People often wear flowers on their clothes or give flowers as a gift during special occasions, holidays, or rituals, such as the birth of a new baby (or a Christening), at weddings (marriages), at funerals (when a person dies). People often buy flowers from businesses called florists.

As a name

Some parents name their girl children after a flower. Some common flower names are: Rose, Lily, Daisy, Holly, Hyacinth, Jasmine, Blossom.

As food

People also eat some types of flowers. Flower vegetables include broccoli, cauliflower and artichoke. The most expensive spice, saffron, comes from the crocus flower. Other flower spices are cloves and capers. Hops flowers are used to flavor beer. Dandelion can be made into wine.

Honey is flower nectar that has been collected and processed by bees. Honey is often named for the type of flower that the bees are using (for example, clover honey). Some people put flowers from nasturtiums, chrysanthemums or carnations in their food. Flowers can also be made into tea. Dried flowers such as chrysanthemum, rose, and jasmine are used to make tea.

Special meanings

Flowers were used to signal meanings in the time when social meetings between men and women was difficult. Lilies made people think of life. Red roses made people think of love, beauty, and passion. In Britain, Australia and Canada, poppies are worn on special holidays as a mark of respect for those who served and died in wars. Daisies made people think of children and innocence.

List of common flowers

1. Daffodil
2. Dahlia
3. Daisy
4. Edelweiss



The evolution of syncarps.
a: sporangia borne at tips of leaf
b: Leaf curls up to protect sporangia
c: leaf curls to form enclosed roll
d: grouping of three rolls into a syncarp

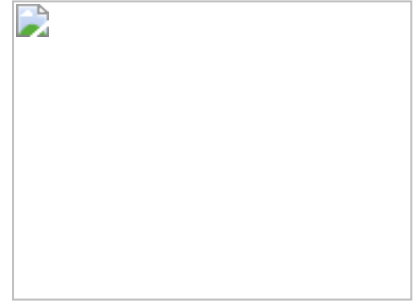


An example of a 'perfect flower'. This *Crateva religiosa* flower has both stamens (outer ring) and a pistil (centre).



A butterfly and a bee with three kinds of flowers

5. Hibiscus
6. Jasmine
7. Lily
8. Water lily
9. Lotus
10. Marigold
11. Morning glory
12. Pansy
13. Petunia
14. Tulip
15. Rose
16. Sunflower
17. Gadhafu
18. safali
19. kochuri
20. gondoraj



Flowers



Wikimedia Commons has media related to ***Flowers***.

Related pages

- Inflorescence

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Other websites

- Photos of flowers

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