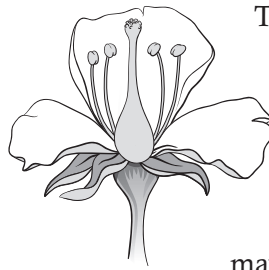


Flower

Background Information

All living organisms depend on plants to provide food, shelter, or oxygen. Therefore, plant reproduction is crucial to all other life on this planet. Different parts of the flower are specialized to help plants reproduce—to produce seeds that are used in new plant growth.

Typical flowers have four main parts: pistil (stigma, ovary, and style), stamen (anther and filament), petals, and sepals.



The female part of the flower, the pistil, includes the ovary, style, and stigma. Pollen attaches to the sticky stigma and this begins the process of pollination. The pollen travels down the style until it reaches the ovary where ovules are fertilized and will develop into seeds. Depending on the plant species, a flower may have male, female, or both males and female reproductive structures. Most flowers depend on bees, birds, or insects to help with the pollination process.

Smell, color, and nectar attract pollinators to the flower.

The male part of the flower, the stamen, consists of the anther and filament. The anther carries the pollen that fertilizes the female part of the flower and is held up by the thread-like filament.

Petals are the colorful structures that help the flower attract pollinators. Petals also serve as a landing platform for insects and birds. For example, when a bee lands on the lower petal of a snapdragon, its weight causes the stamen to swing down and dust the bee with pollen. Petals of some plant species have stripes or other markings that guide pollinators to the nectar.



The green, outermost petal-like structures of the flower are the sepals. Generally, there are the same number of sepals in a flower as petals. Sepals form the protective layer around a flower in bud.

Flowers come in many shapes and sizes. Not all flowers contain the four flower parts featured in this lesson. Flowers that contain both male and female parts are called complete flowers. Flowers that contain only male or only female parts are called incomplete flowers. Flowers can also be categorized as simple or composite. Simple flowers have only one set of parts, while composite flowers may contain hundreds .

BACKGROUND INFORMATION: Parts of a Flower

Each part of the flower contributes to the flower's role of making seeds.

Pistil: the female part of the flower shaped like a bowling pin that is made up of the stigma, style, ovary, and ovule

Stigma: the sticky bulb at the center of the flower at the top of the pistil. Pollen grains attach to the stigma.

Style: a long stalk that holds up the stigma. Pollen travels down the style to the ovary.

Ovary: the enlarged base of the pistil where seeds develop. A mature ovary becomes the fruit of the plant.

Ovule: small parts inside the ovary that when fertilized with pollen become seeds.

Stamen: the male parts of the flower that surround the pistil

Anthers: the top of the stamen stalk that is filled with pollen. When the pollen is ready to be spread, the anthers open up to release pollen.

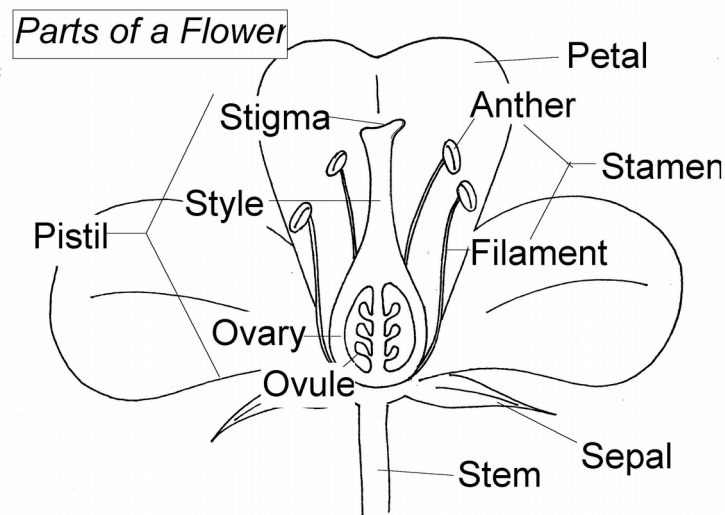
Filament: the long thin stalk that supports the anther.

Petals: the soft parts surrounding the pistil and stamen that are often brightly colored to attract pollinators.

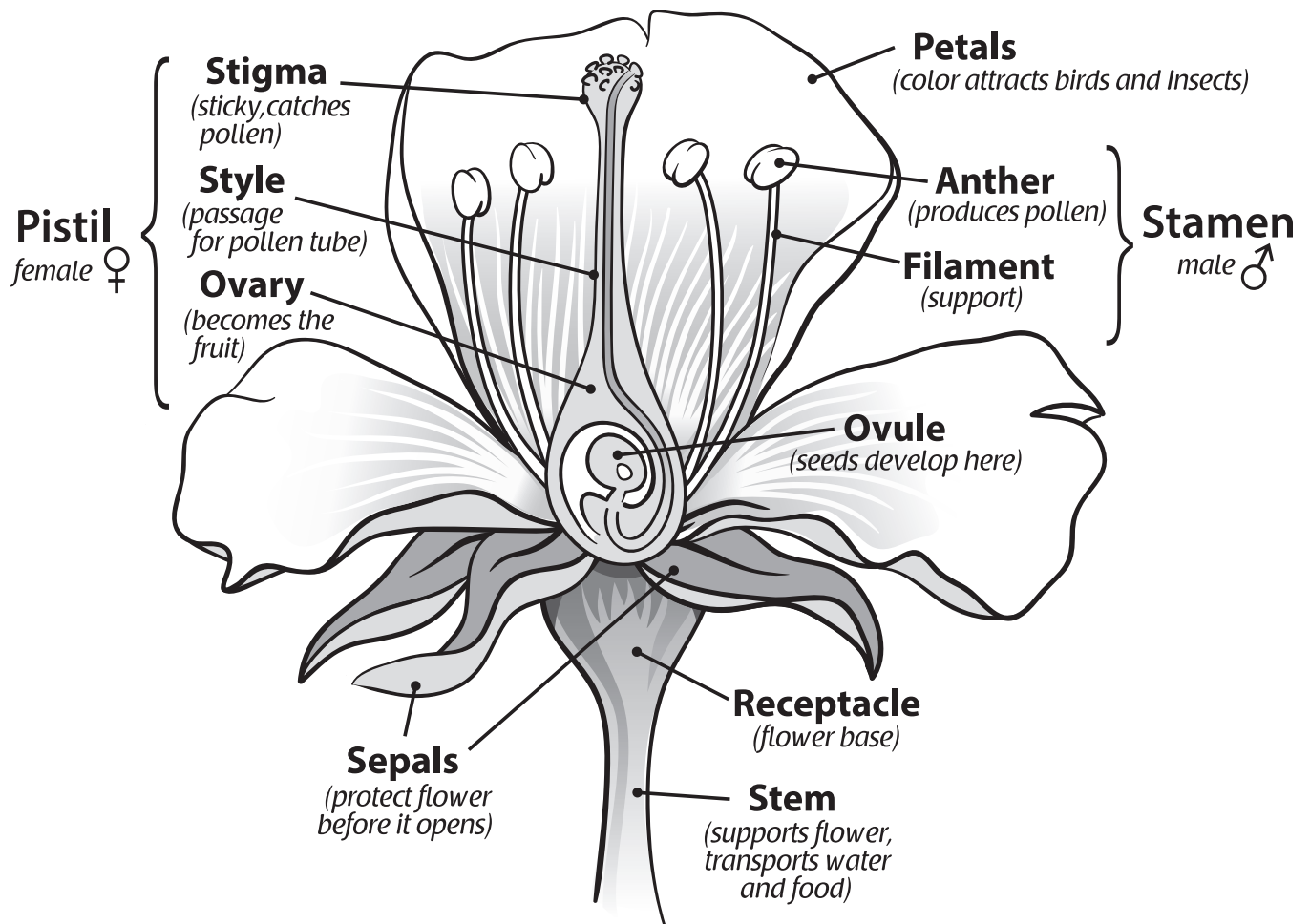
Sepal: the small leaves directly under a flower

Nectar: a sweet sticky substance produced by flowers to attract pollinators and used by bees to make honey

Some flowers, such as those on pumpkin plants, have only stamens (the male part) or pistils (the female part). They are called imperfect flowers. Other plants, such as tomatoes, have both stamens and pistils and are called perfect plants.



Parts of a Flower



Anatomy of a Flower

stamen

male part of a flower

filament

holds up the anther

anther

produces pollen grains

carpel (pistil)

female part of a flower

stigma

catches pollen

style

connects the stigma to the ovary

ovary

stores the ovule or ovules

petal

attracts insects and mammals to the flower for pollination

sepal

protection for the flower and support for the petals when in bloom

ovule

contains the embryo sac

receptacle

the thickened part of a stem

