

The Root Cap.

The region of development.

The region of extension.

Stem

Other essential part of the plant is its stem. It's the thrusting part of the plant axis which bears branches, leaves, flowers, fruits and helps in the conduction of water and minerals. It's the upstanding part of the plant, developed from the plumule of an embryo or the growing seeds.

Young stems are generally green in colour and subsequently becomes woody and brown.

Characteristics of Stem

- The stem develops from the plumule and epicotyl of the embryo.
- The stem is erect and grows down from the soil towards the light.
- There is a terminal bud at the apex of the stem.
- In angiosperms, the shoot is discerned into buds and internodes.
- Young stems are green and photosynthetic.
- Multicellular hair is present.
- The stem and branches of mature plants bear fruits and flowers.

Different forms of Stem

Suckers.

Runners.

Roots.

Tubers.

Rhizome.

Tendrils.

Stipules.

Cladode.

Leaves

The leaf is a laterally borne structure and generally flattened. It's the main photosynthetic part of the plant. It absorbs light and helps in the exchange of gases through the stomata. The main parts of the leaf include the leaf base, petiole, and lamina. They grow at the node and bear a bud at the axil. The arrangement of nodes and veinlets in a leaf is called venation. The leaves are green because of the presence of the photosynthetic color called chlorophyll and have a tiny opening or opening called stomata, where the gaseous exchange takes place.