

The stem

Stem function :

- 1- stems are support structures in plants, They are bearing the flowers, fruits and leaves .
- 2- Bring water and minerals to the leaves and distribute photosynthetic products to the root .
- 3- Some stems are important in vegetative reproduction , food storage and water storage .

There are two types of stems .:

- a- Herbaceous stems .
- b- Woody stems .

Herbaceous stems :

It is meaning that the stem shows (primary growth) which occurs as meristem produces new cells which become differentiated tissues , some will become vascular tissues or leaf primordia or lateral buds .

Woody stems :

A- woody consist of primary and secondary xylem and contains annual rings .

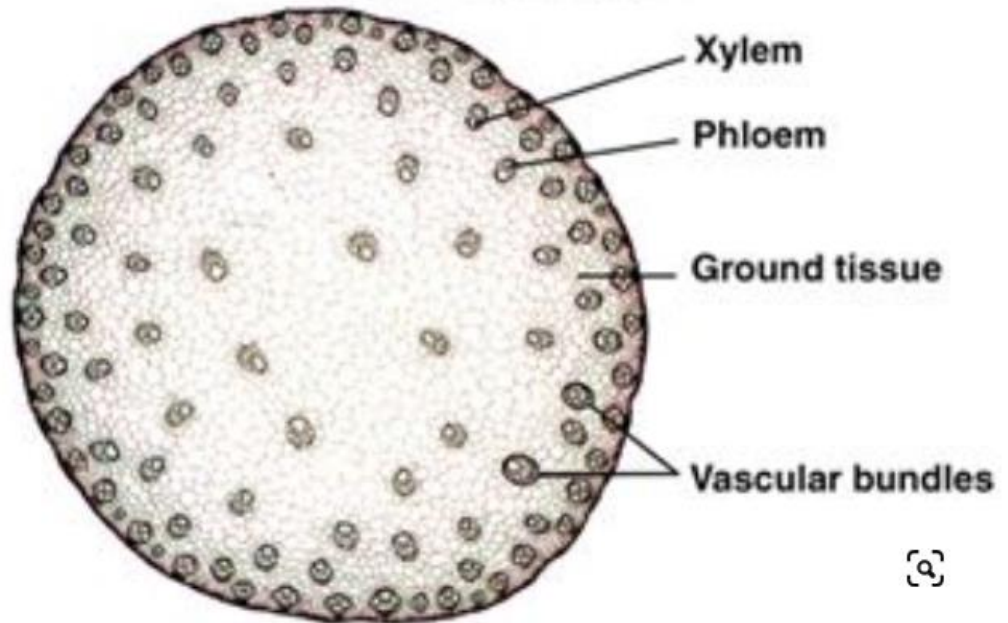
B-woody stems have three basic regions :

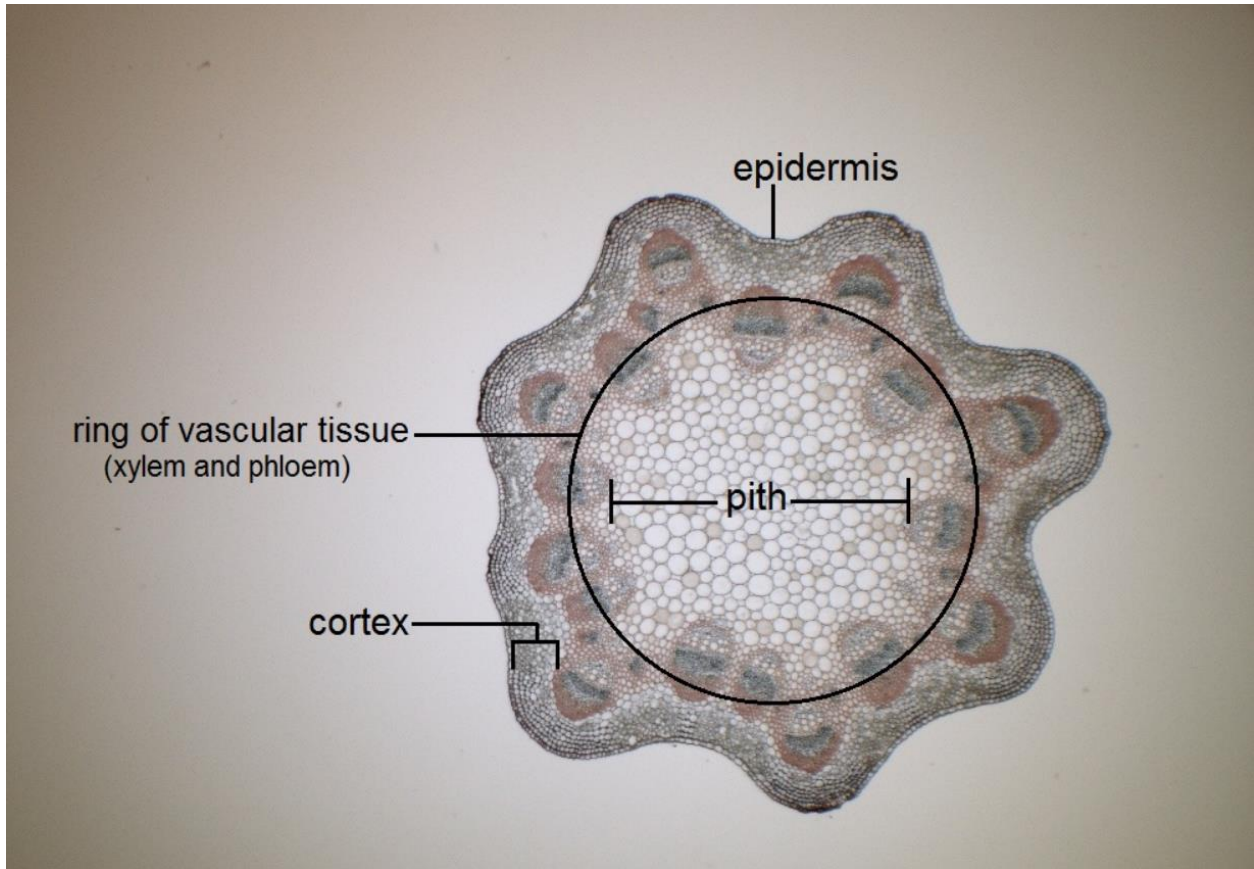
- 1- bark
- 2- vascular cambium
- 3- woody (xylem)

Differences between dicot stem and monocot stems

Dicot stem	Monocot stem
Hypodermis is made up of collenchymatous cells	Hypodermis is made up of sclerenchymatous cells
Pith is present	Pith is absent
Vascular bundles are arranged in a ring	Vascular bundles are scattered in the ground tissue

Monocot Stem





dicot stem