

# Classification of Plants



# Plant Kingdom

```
graph TD; A[Plant Kingdom] --> B[Non-flowering Plants]; A --> C[Flowering Plants];
```

A flowchart illustrating the classification of the Plant Kingdom. At the top, a light blue box contains the text "Plant Kingdom". A vertical line descends from this box and splits into two horizontal lines, each ending in a downward-pointing arrow. The left arrow points to a green box with the text "Non-flowering Plants". The right arrow points to a purple box with the text "Flowering Plants".

**Non-flowering  
Plants**

**Flowering  
Plants**

- 3 groups

## Non - flowering Plants

Mosses

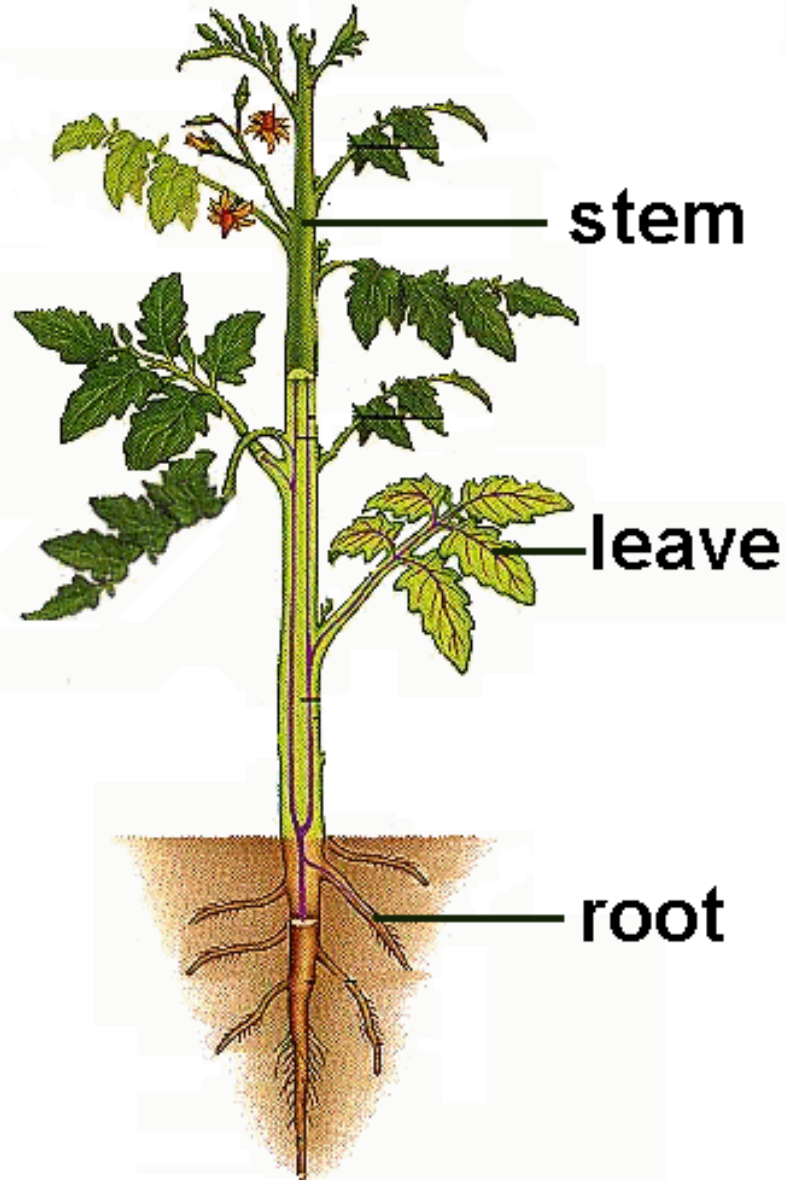
Ferns

Gymnosperms

Do NOT produce flowers



**A plant can be divided into 3 parts**



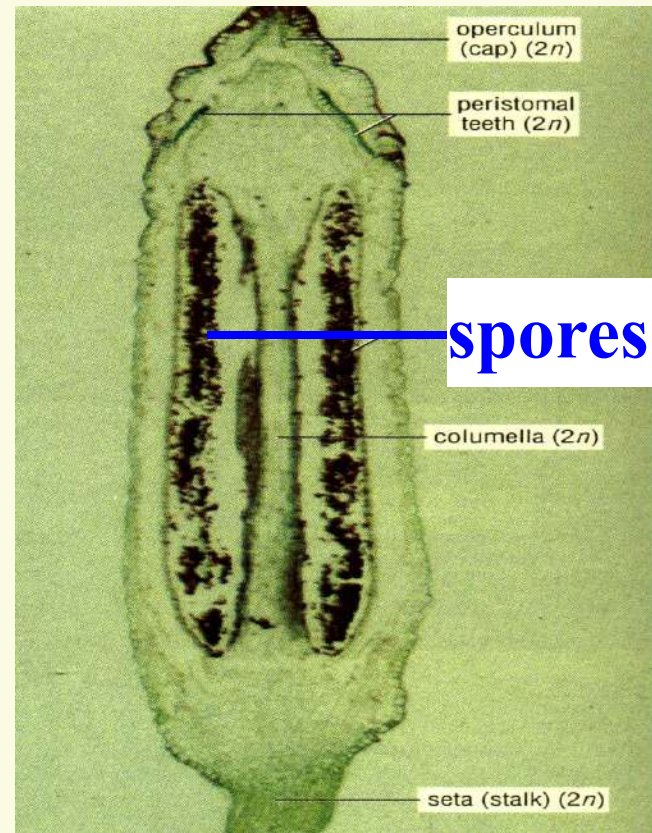
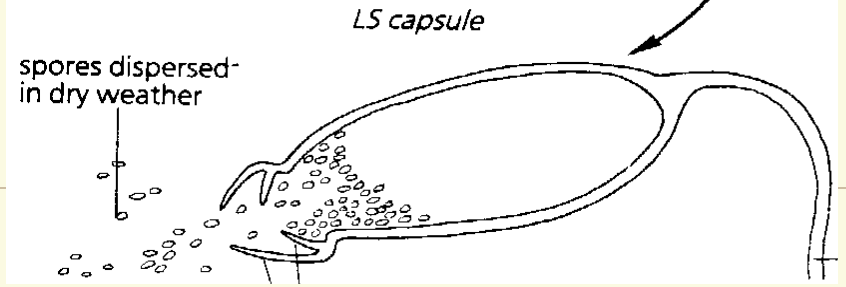
# Examples of Mosses





# Moss

## Spore-producing capsule



# Characteristics of Mosses

.Simplest plants

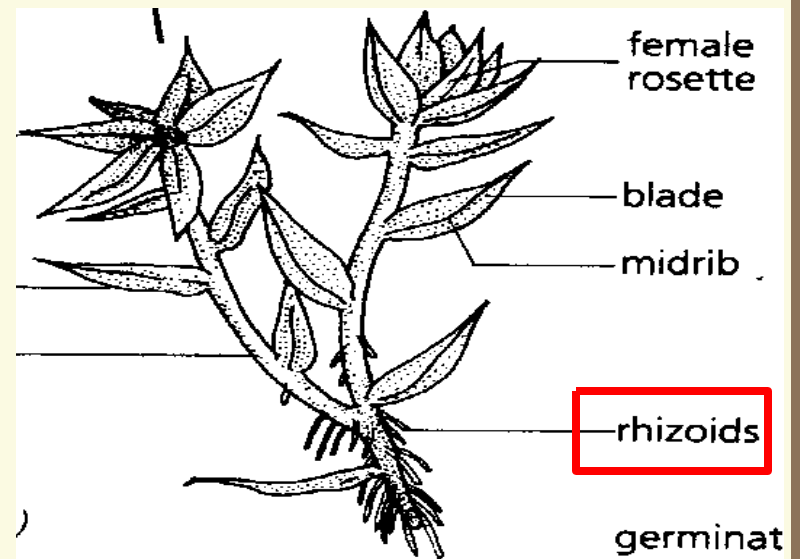
.No true roots, No vascular tissues (no transport)

.Simple stems & leaves

.Have **rhizoids** for anchorage

.**Spores** from capsules (wind-dispersal)

.**Damp** terrestrial land



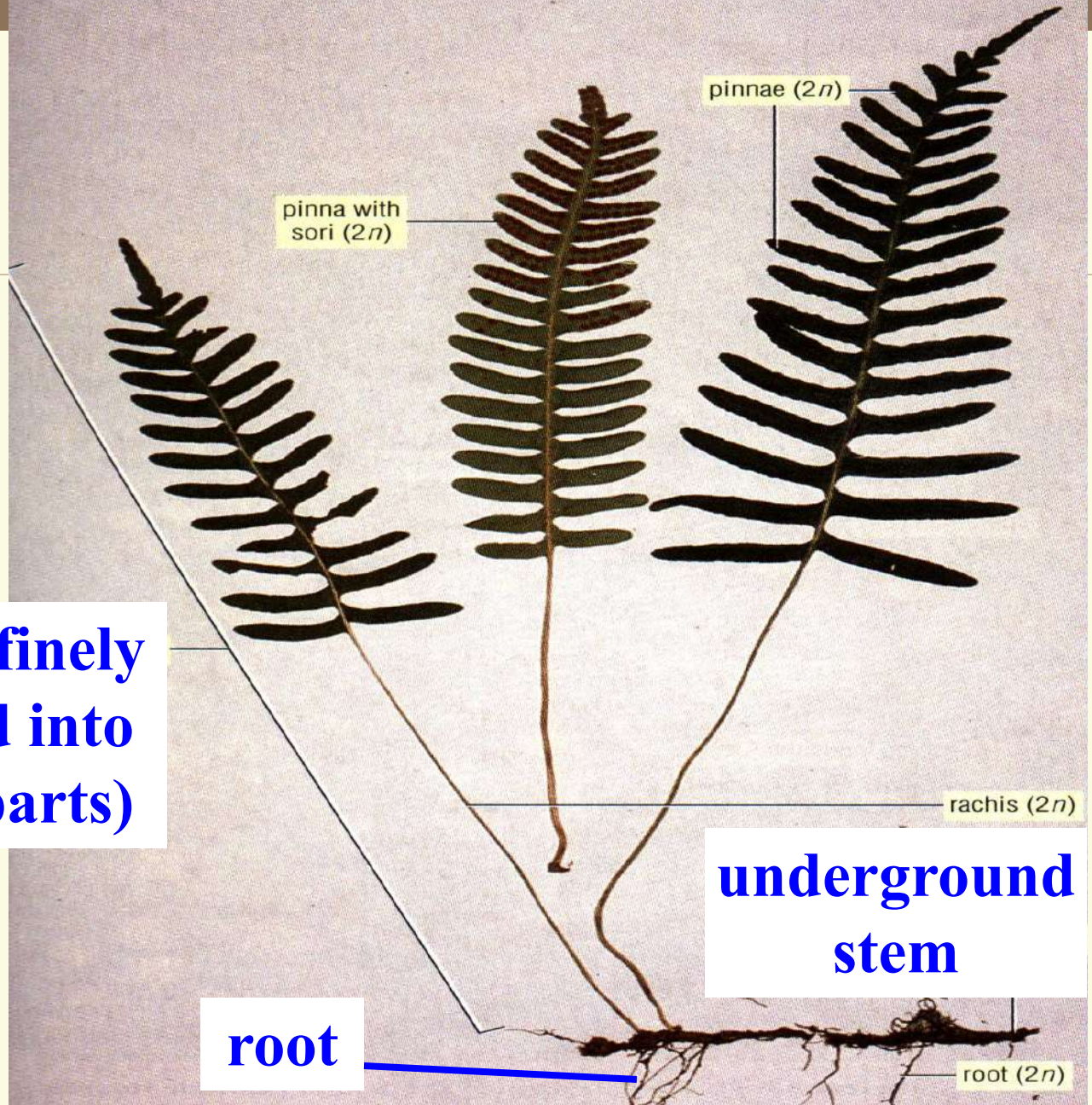
# Fern





# Fern

A leaf (finely divided into small parts)



pinna with sori (2n)

pinnae (2n)

rachis (2n)

underground stem

root

root (2n)



spore-producing

(circinate)





# Characteristics of Ferns

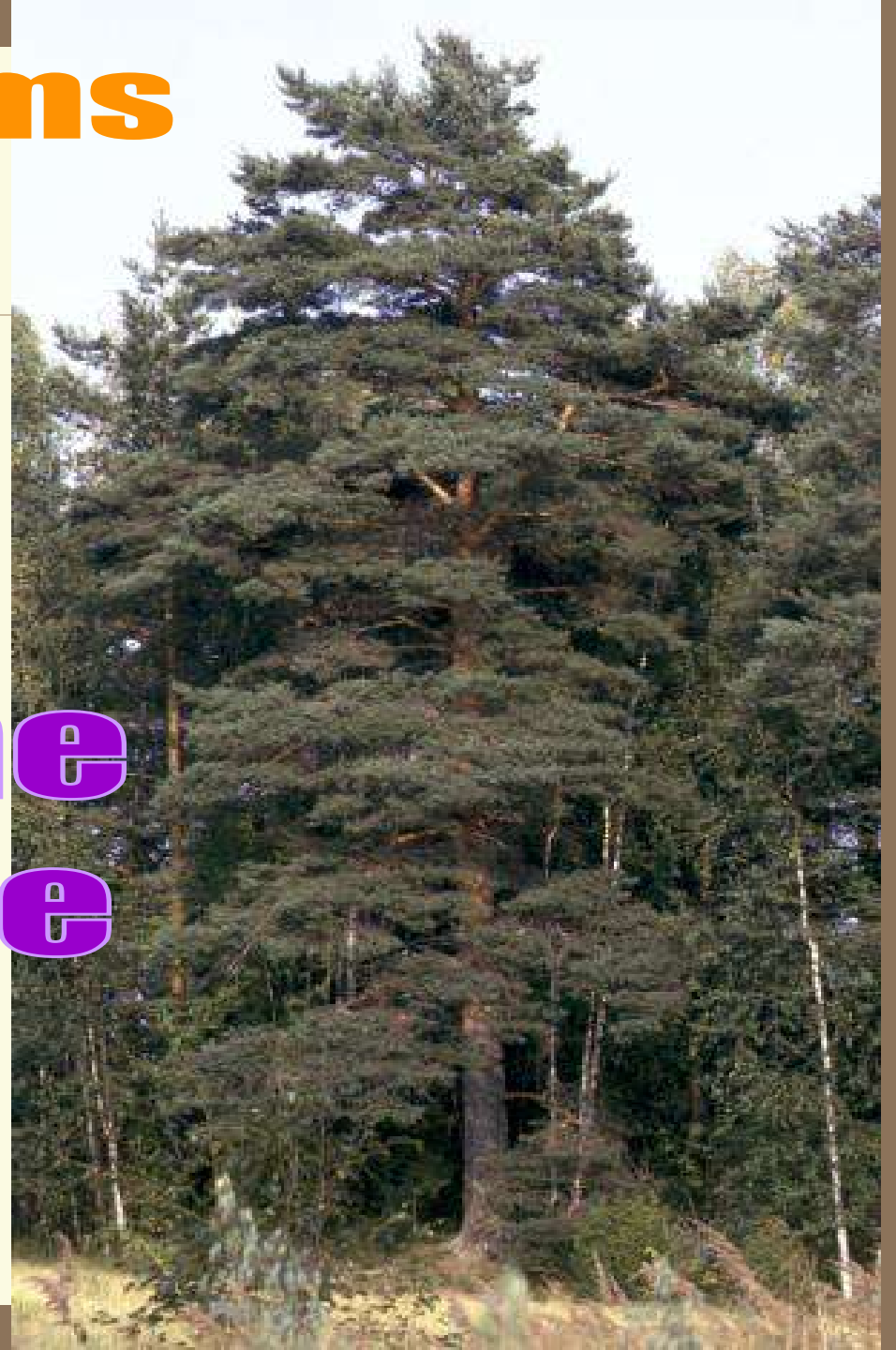
- .roots, feathery leaves & underground stems
- .have **vascular tissues** (transport & support)
- .**Spore-producing organ** on the underside of leaves (reproduction)
- .**Damp & shady** places



# Gymnosperms



**Pine  
tree**





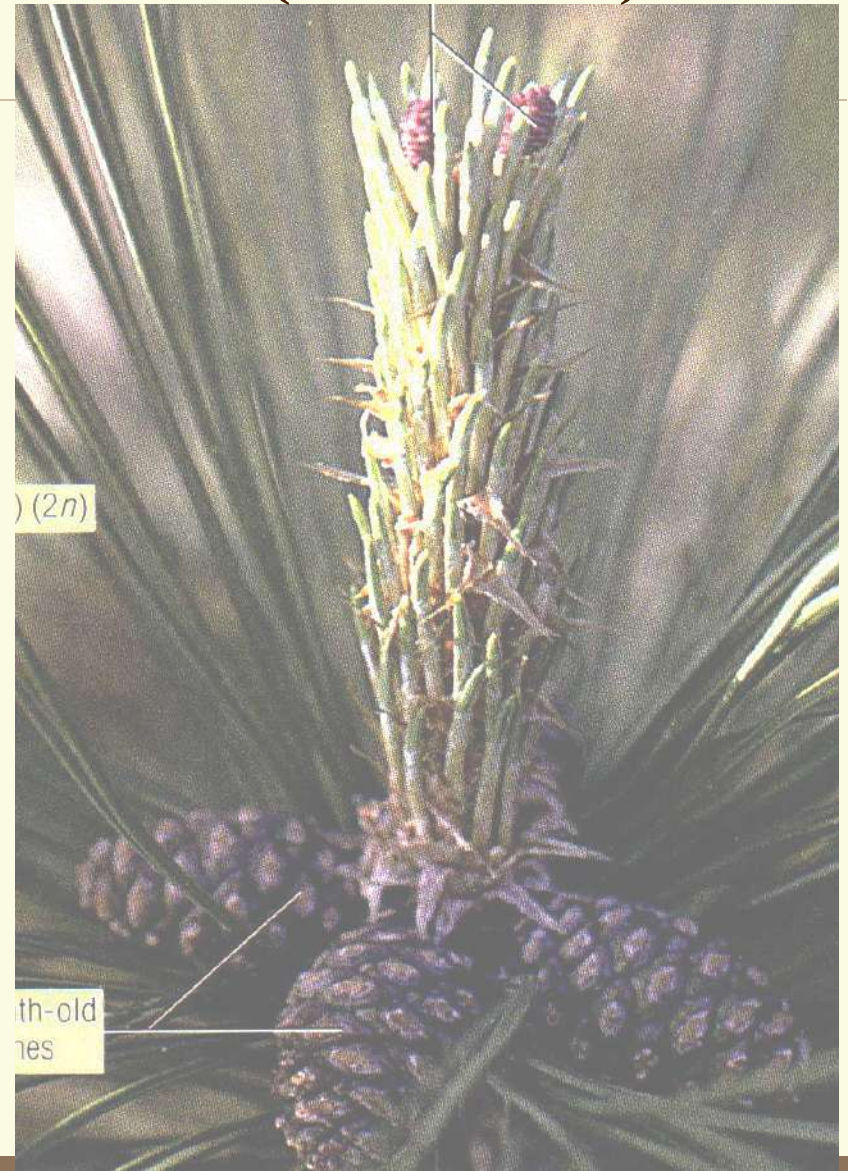
# needle-shaped leaves



# Male cones (in clusters)



# Female cones (scattered)





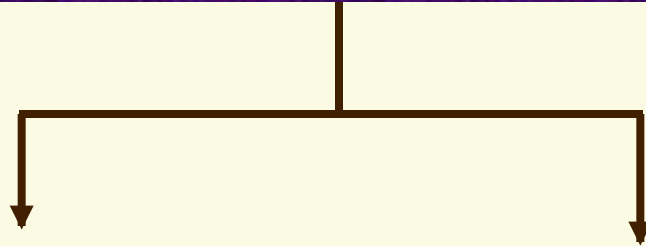
# Characteristics of Gymnosperms

- tall evergreen trees
- roots, woody stems
- **needle-shaped** leaves
- **vascular tissues** (transport)
- **cones** with reproductive structures
- **naked seeds** in female cones
- dry places



- **2 groups**

## Flowering Plants



**Monocotyledons**

**Dicotyledons**

- **roots, stems, leaves**
- **vascular tissues (transport)**
- **flowers, fruits (contain seeds)**





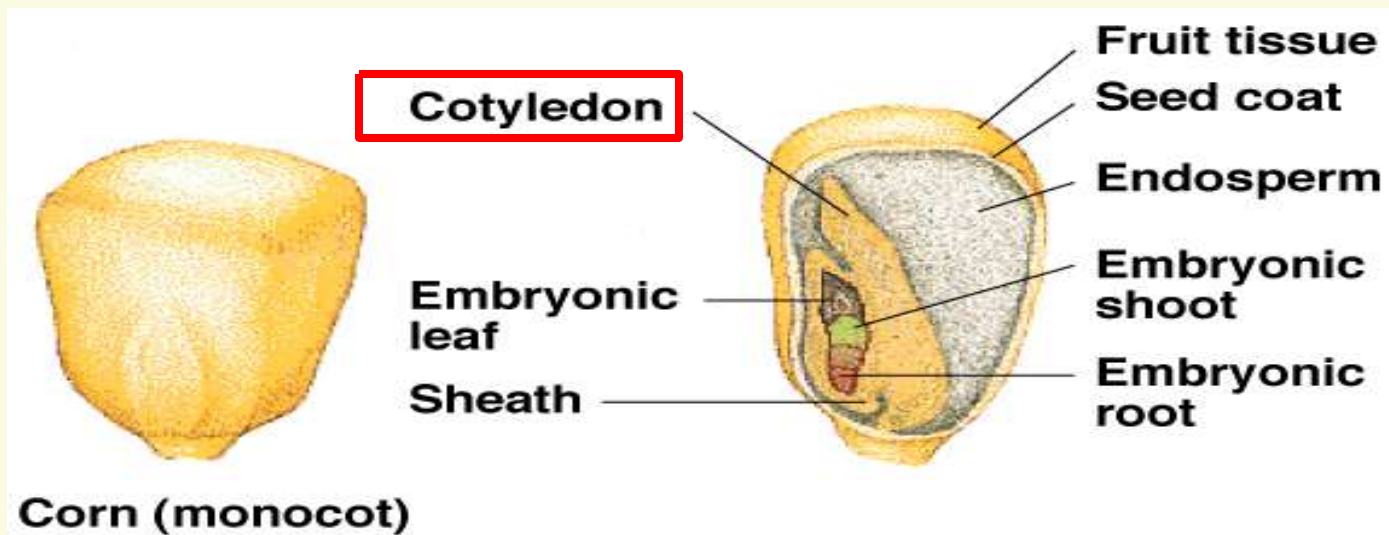
# Monocotyledons



**Parallel veins**

# Characteristics of Monocotyledons

- **one seed-leaf**
- leaves have **parallel** veins
- herbaceous plants
- e.g. grass, maize



# Dicotyledons

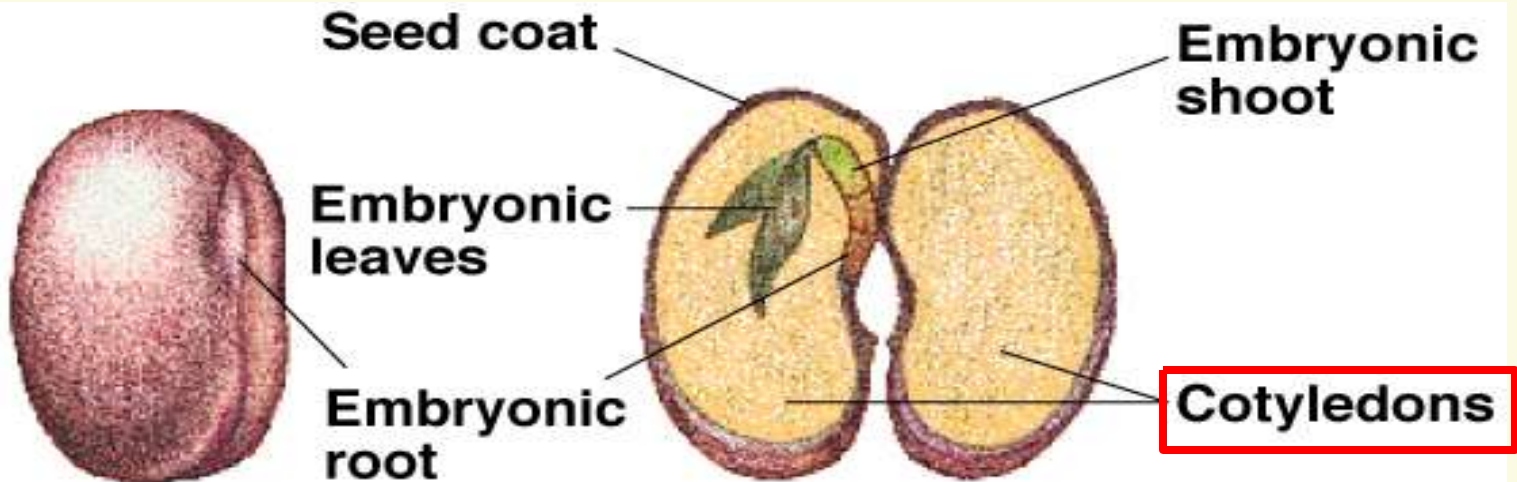


**Veins in network**



# Characteristics of Dicotyledons

- . two seed-leaves
- . leaves have veins in network
- . e.g. trees, sunflower, rose



Common bean (dicot)

# Plant Classification

