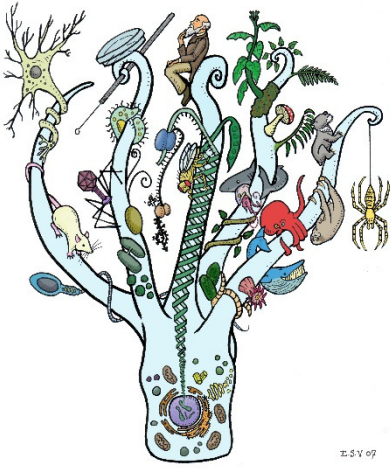


Tuesday, April 11, 2017

Pick up: none



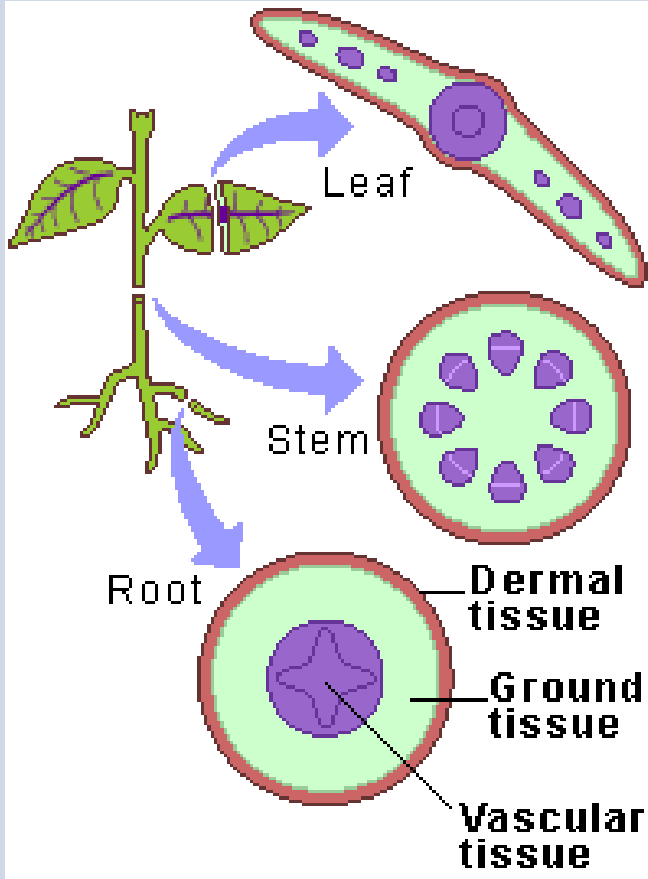
Today you will:

1. Monocot & Dicots
2. Plant tissues & classification

Homework/Planner:

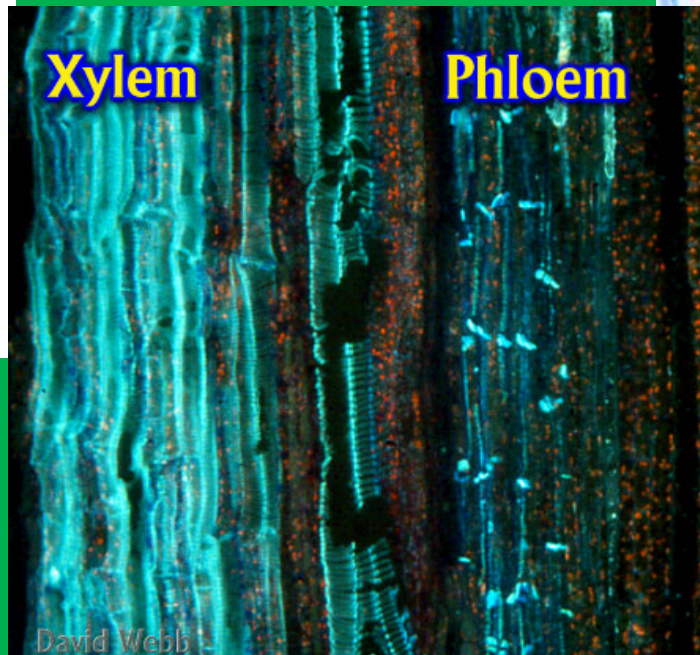
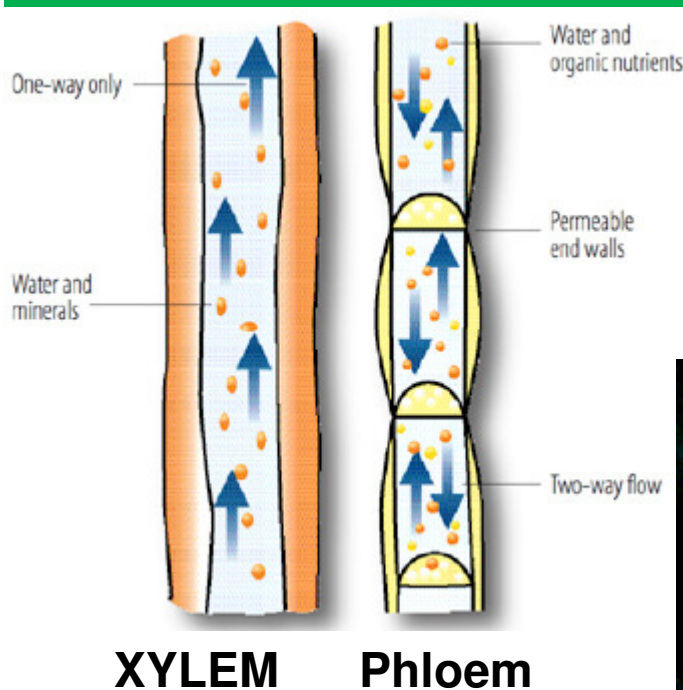
Quiz Thursday!!!!

# Cornell Notes, ISN p.197

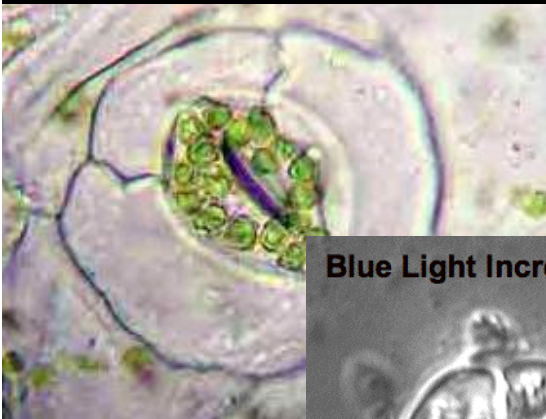
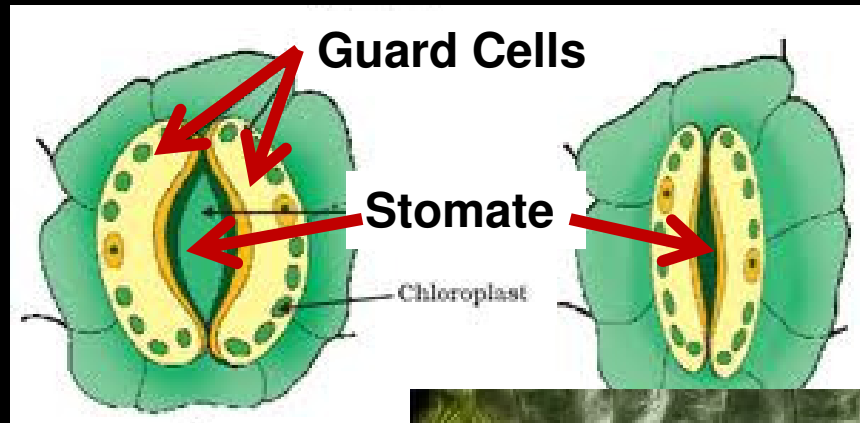
TISSUES IN PLANTS	Function	Location
A) DERMAL	Protect, prevent water loss	 <p>The diagram illustrates the internal structure of a plant. It shows a whole plant with arrows pointing to three cross-sectional views: a leaf, a stem, and a root. The leaf cross-section shows a single layer of cells (dermal tissue) and internal structures. The stem cross-section shows a central vascular cylinder surrounded by ground tissue and an outer dermal layer. The root cross-section shows a central vascular cylinder, ground tissue, and an outer dermal layer. Labels for 'Dermal tissue', 'Ground tissue', and 'Vascular tissue' are provided for the root cross-section.</p>
B) GROUND	Photosynthesis, food storage, support	
C) VASCULAR	Transport of food, water, minerals	

# Cornell Notes, ISN p.197

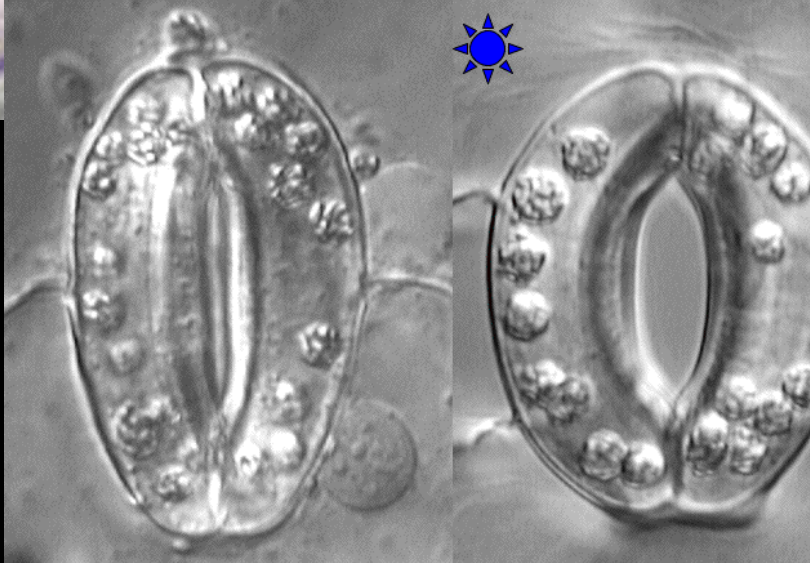
## Stems: transport, support



# Guard Cells = controls opening of stomata



Blue Light Increases Guard Cell Turgor, Opening Stomata



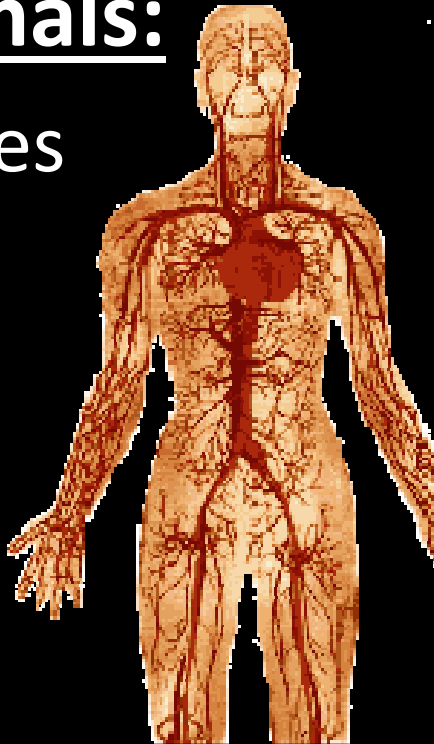


# ***So what IS Vascular Tissue?***

Vessels that move food, nutrients, waste, oxygen, carbon dioxide, water throughout the organism.

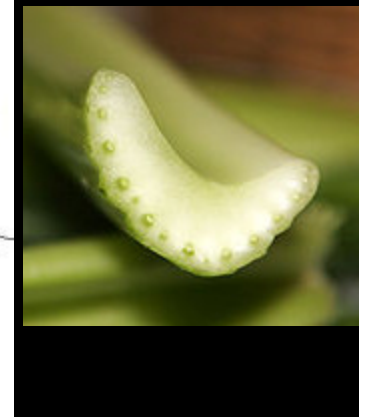
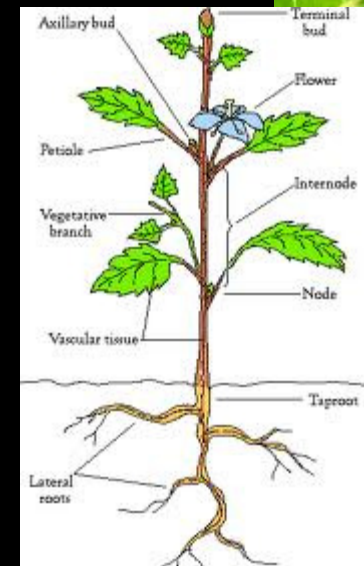
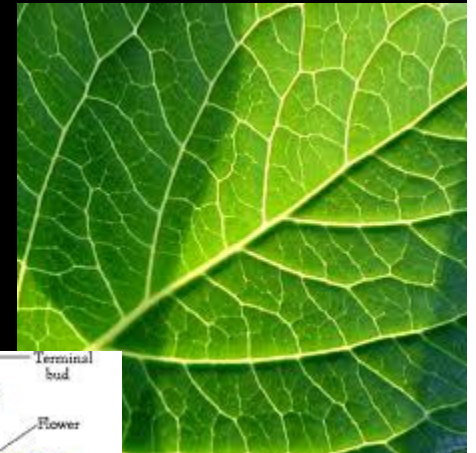
## In Animals:

- Arteries
- Veins



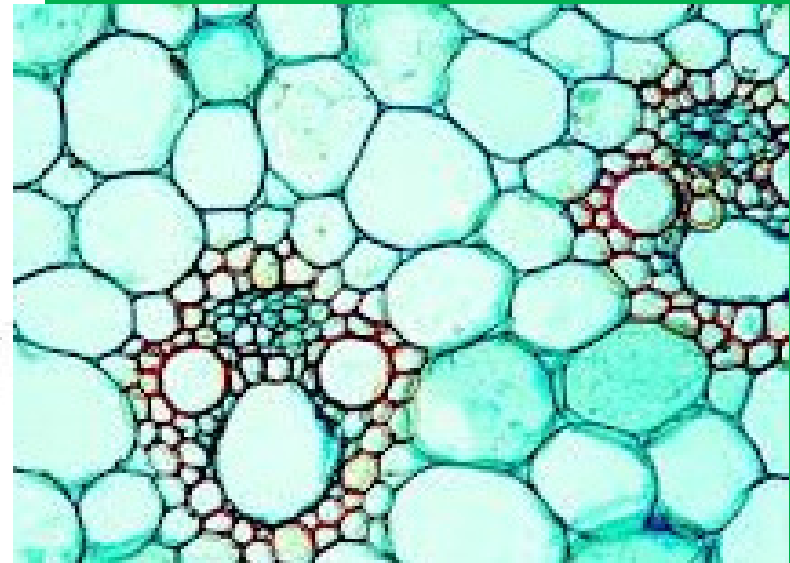
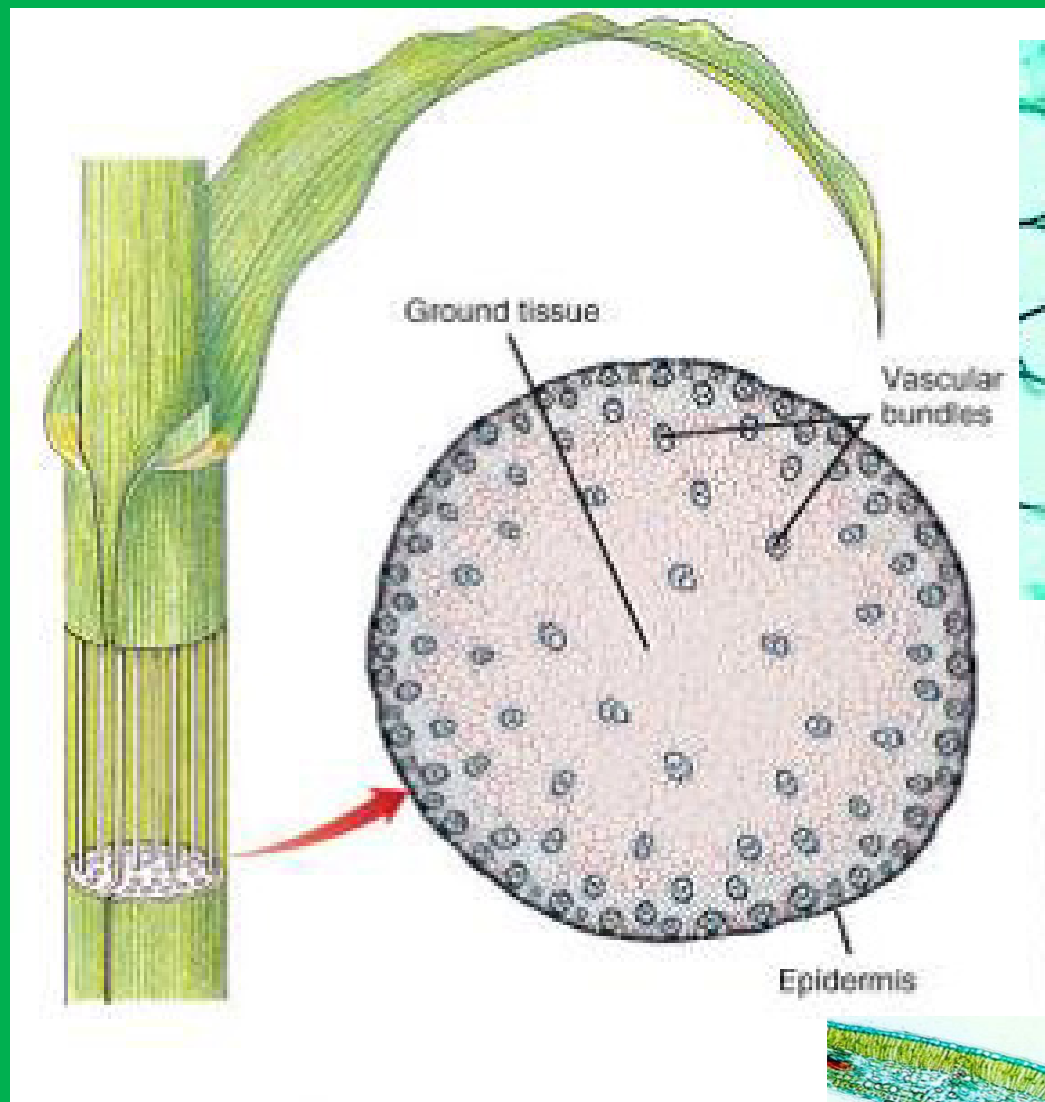
## In plants?

- Xylem
- Phloem



# *How these compare to Body Systems*

1. ROOTS.....Skeletal system
  - A. Taproot
  - B. Fibrous root
  - C. Meristematic
2. STEMS.....Skeletal, muscular
  - A. Woody
  - B. Herbaceous
  - C. Xylem.....Circulatory sys.
  - D. Phloem.....Circulatory & Digestive
3. LEAVES
  - A. Photosynthesis
  - B. Stomates..... pores in skin
  - C. Transpiration.....sweating
  - D. Cell Respiration...
4. FLOWERS.....Reproductive Sys.
  - A. Fruits.....Ovary
  - B. Cones
  - C. Pollen.....Sperm
  - D. Seeds.....Eggs
5. TISSUES
  - A. Dermal.....Skin



## Angiosperm

Flowering plant-Seeds enclosed in ovary

Deciduous-looses leaves

Flat leaves



## Gymnosperm

NO flowers-seeds in cones or on scales

Green all year (except Cypress)

Needle shaped leaves





**A. FRUITS**

**B. CONES**

**C. POLLEN**

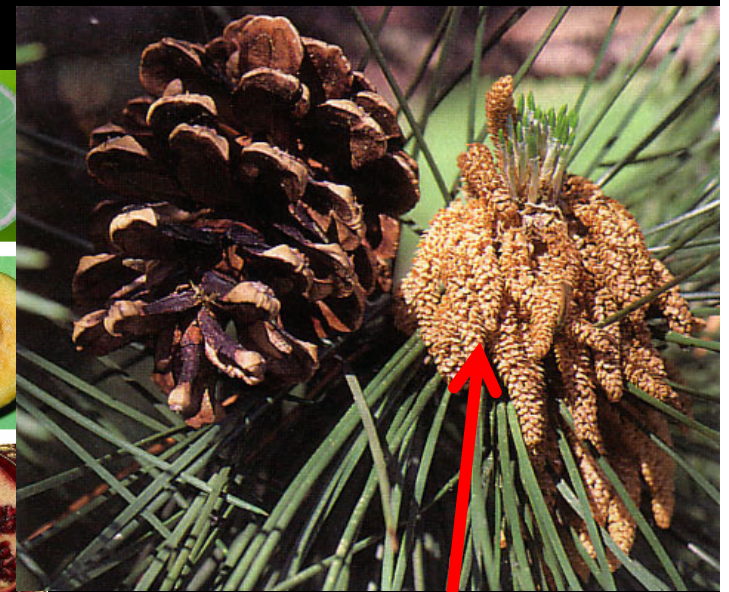
**D. SEEDS**

- Develops from ovary of flower

- Where seeds develop

- Produce male sperm!

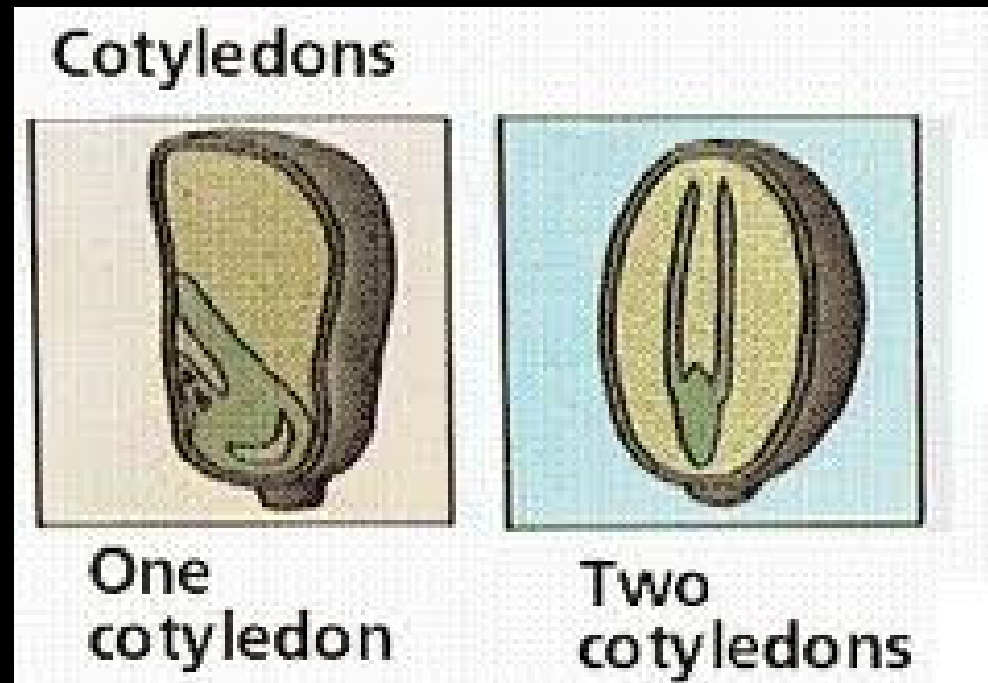
- Fertilized egg of a flowering plant containing an embryo that grow into new plant



**Smaller male cone releases pollen**

# MonoCots vs DiCots

- Cotyledon – part of the seed that becomes the young, developing plant-“seed leaf”



DO NOT Split  
in half easily =  
corn,  
coconuts

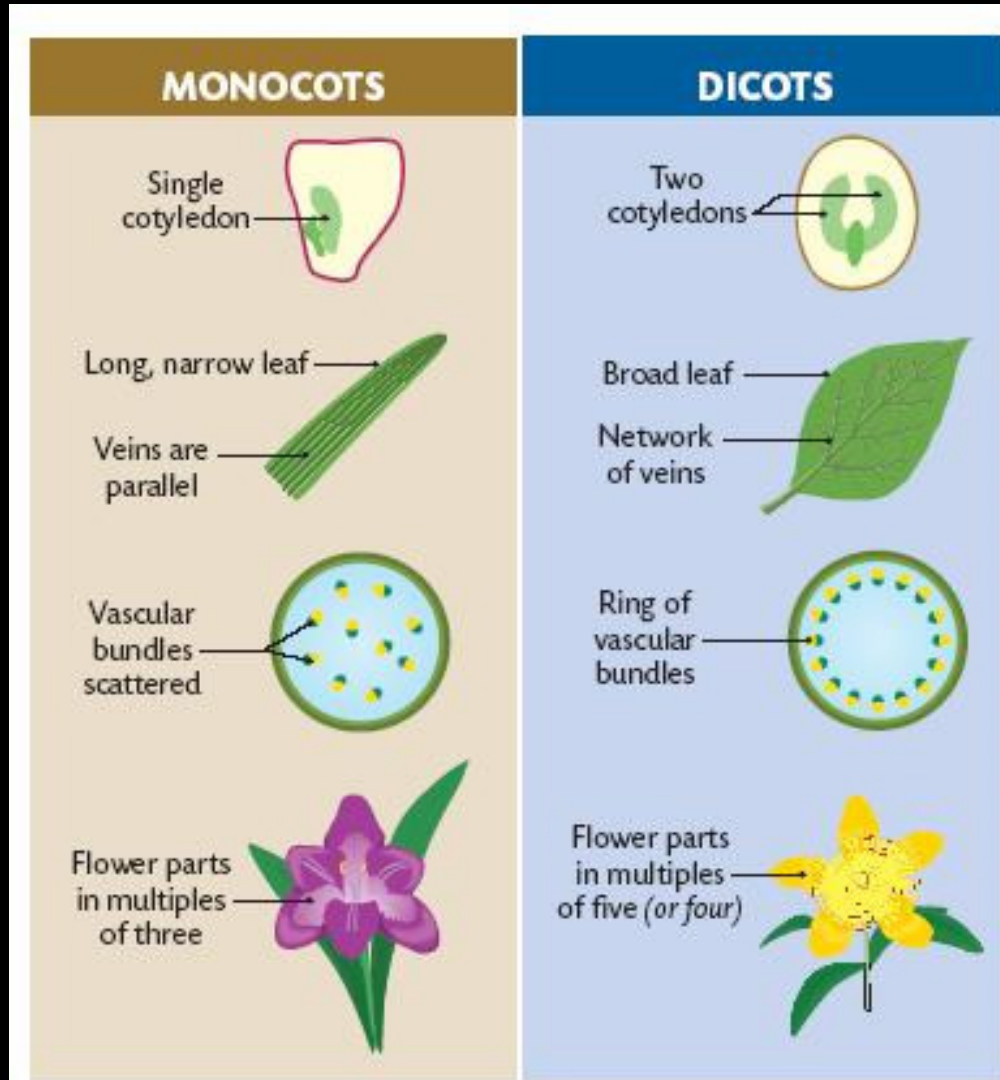
Spilt in half  
easily =  
peanuts,  
beans

Use the Textbook – p. 625-626

# MonoCots vs DiCots

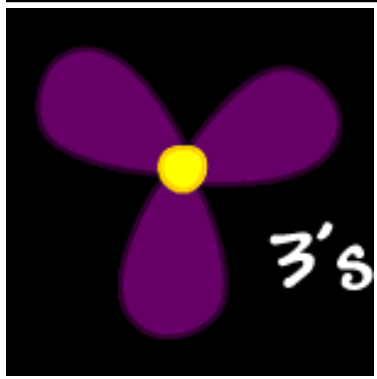
- Cotyledon = 'seed leaf'

provides food to dev. embryo of the plant

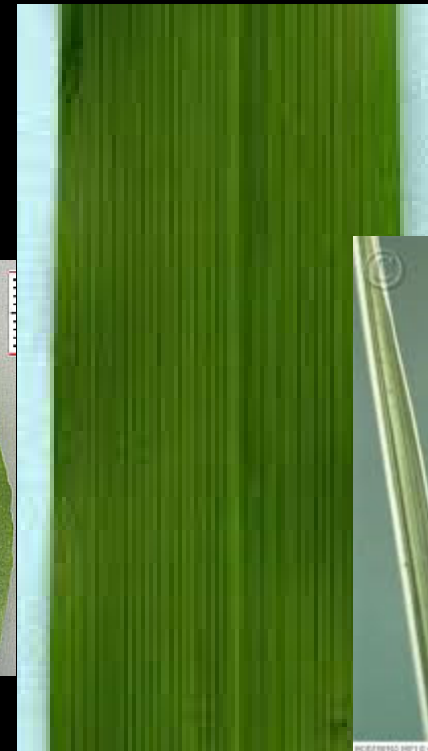
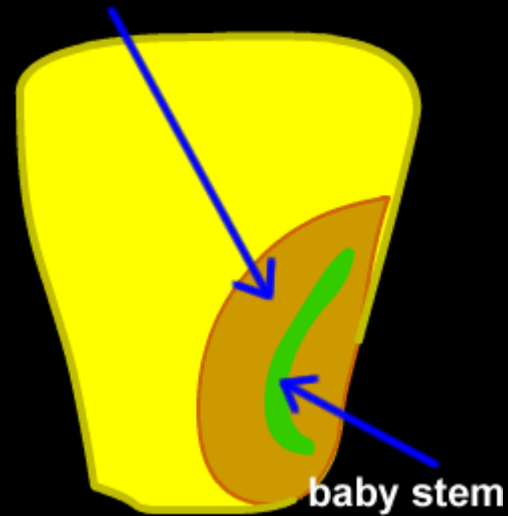


# MONOCot

corn, wheat, rice, grass, palm trees



1 cotyledon

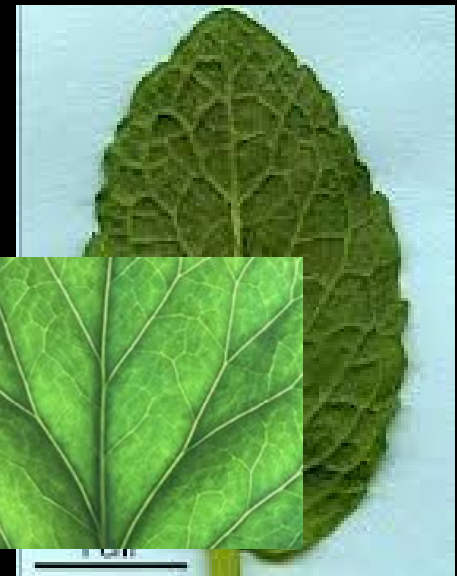
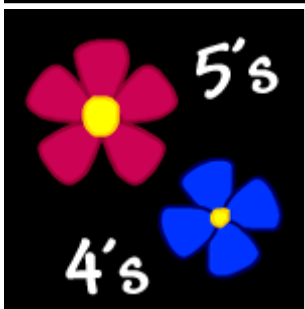
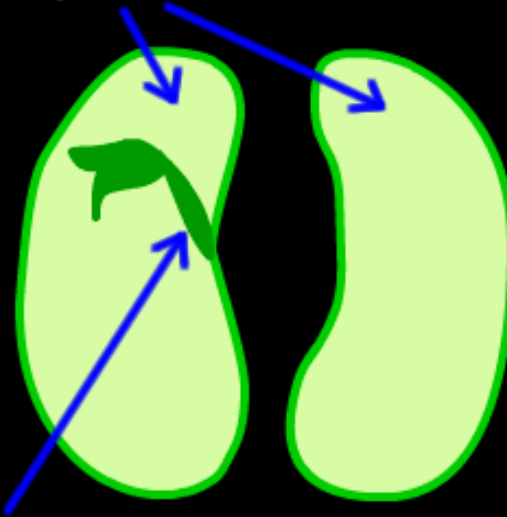




# DiCot

Peanuts, Beans, Oak trees, daisies, roses, hibiscus

2 cotyledons



# Plant Processes

ISN pages 230-231

1. Photosynthesis = process of using sunlight,  $\text{CO}_2$ , & water to make glucose &  $\text{O}_2$  (Ch. 4.2)
  2. Cellular Respiration = process of using glucose/food &  $\text{O}_2$  to release energy (ATP) (Ch. 4.4)
  3. Transpiration = process of water absorption, movement, & release through stomata to the atmosphere so the 2 processes above can take place! (Ch. 21.2)
  4. Reproduction = process of making more plants by way of flowers or cones (Ch. 22.2)
- Write the role each part plays in the process for each column.