

Wednesday, April 12, 2017

Pick up: self check

Today you will:

1. Self check
2. Describe how the different parts of a plant are involved in Photosynthesis, Cell Respiration, Transpiration & Reproduction.

Homework/Planner:

Quiz tomorrow!!!! Study and have ALL pages complete.

# Plant Processes

ISN pages 200-201

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.

# PHOTOSYNTHESIS



SUN!

Carbon  
Dioxide

Water



Oxygen

Glucose

A. Leaves...

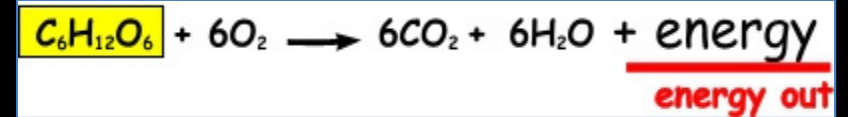
B. Stomata...opening to take  
in CO<sub>2</sub> & release O<sub>2</sub>

C. Guard Cells... control  
opening of stomate

D. Stem... transport

E. Phloem... tissue inside  
stem that moves food up  
AND down

# CELL RESPIRATION



Oxygen

Glucose



ATP!!

Carbon  
Dioxide

Water

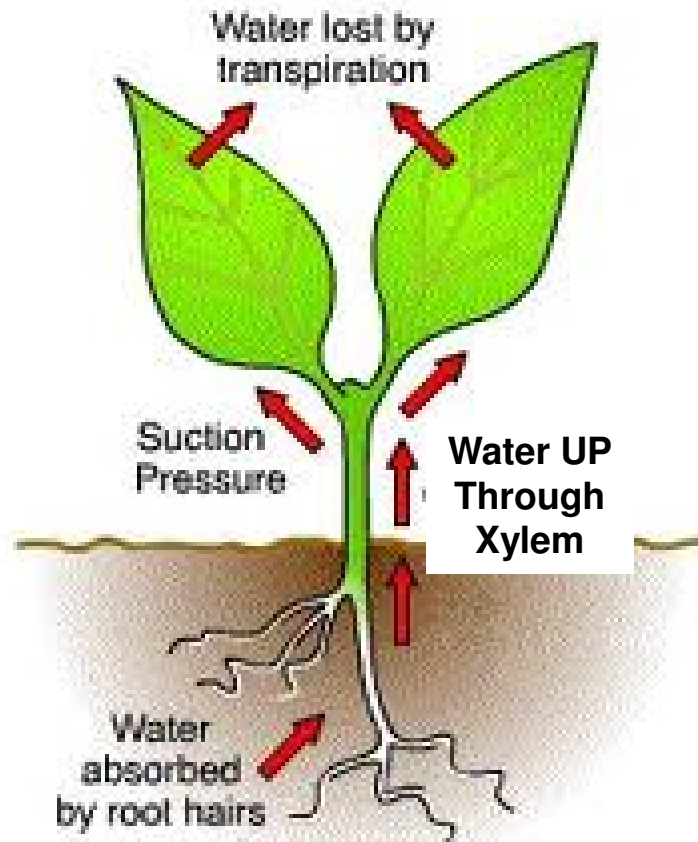
A. Leaves...

B. Stomata... takes in O<sub>2</sub> &  
release CO<sub>2</sub>

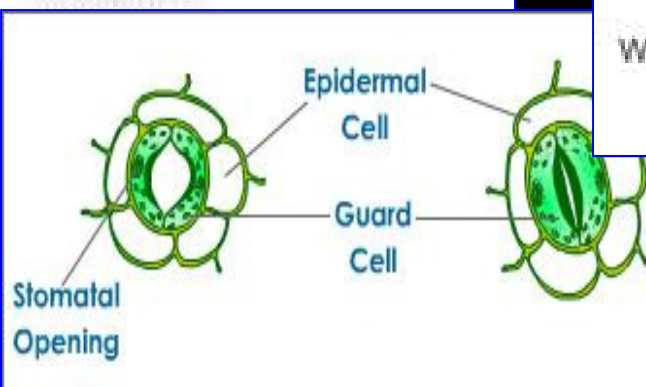
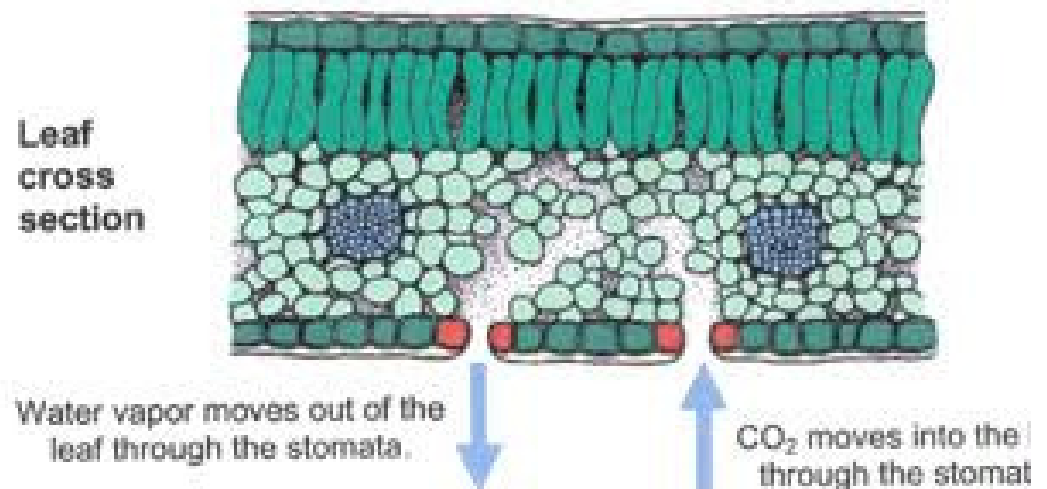
C. Guard Cells...control

D. Stem...transports

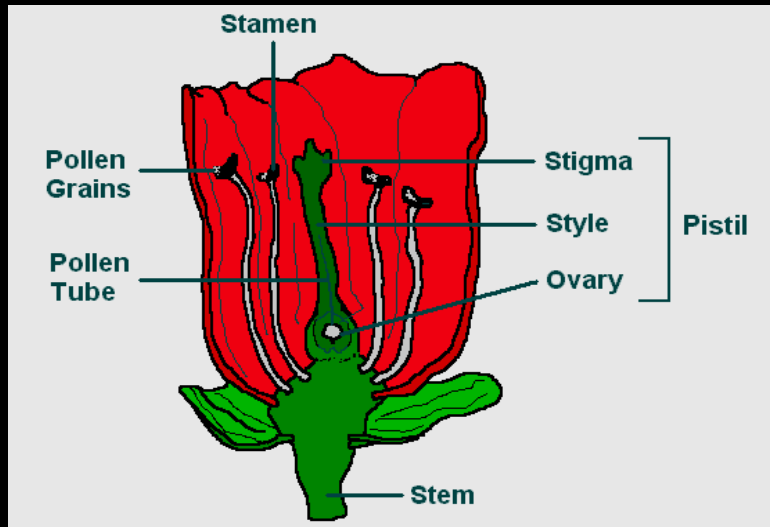
# TRANSPIRATION



- A. Leaves...where water leaves**
- B. Stomata...opening**
- C. Guard Cells...control**
- D. Xylem...tissue that moves water UP only**
- E. Roots...where water enters**



# REPRODUCTION



Stamen makes pollen (male gamete) → pollen transferred to Pistil → Fertilized egg moves down to ovary → dev. into fruit → where seeds are

**A. Flower... Repro. Part of Angiosperms**

**B. Stamen... male; prod. pollen**

**C. Pistil... female; receives pollen**

**D. Fruit... mature ovary**

**E. Cone... repro. Part of Gymnosperm**

**F. Seeds... new plants grow from**



Male cone releases pollen → lands on female cone → seed develops in cone but exposed when cone is open → takes 2 years!



**G. Meristem... site of new growth**

**H. Cambium... site of growth in stem between xylem & phloem**



**Pollen collected from superior male pine trees is applied to female pine cone flowers inside an isolation bag.**