Biology 11 The Angiosperms Name:

**Objectives:** By the end of the lesson you should be able to:

* Compare and contrast all of the plant groups (Bryophyta, Pteridophyta, Gymnosperms and Angiosperms)
* Describe the lifecycle of an angiosperm
* Describe the structures/functions of a flower

**Angiosperm = The \_\_\_\_\_\_\_\_\_\_\_\_\_ plants!!!**

**Angiosperms - " "**

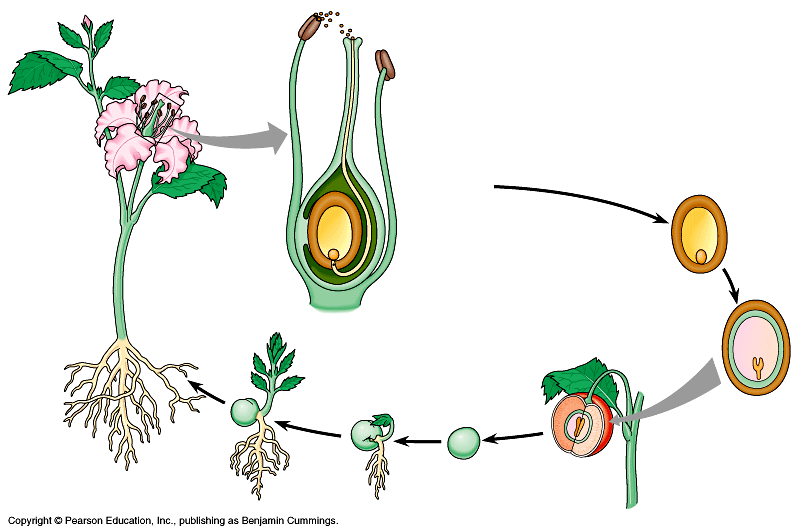
* The last major advance in plant \_\_\_\_\_\_\_\_\_\_\_\_ is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Their big advance is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Evolution**

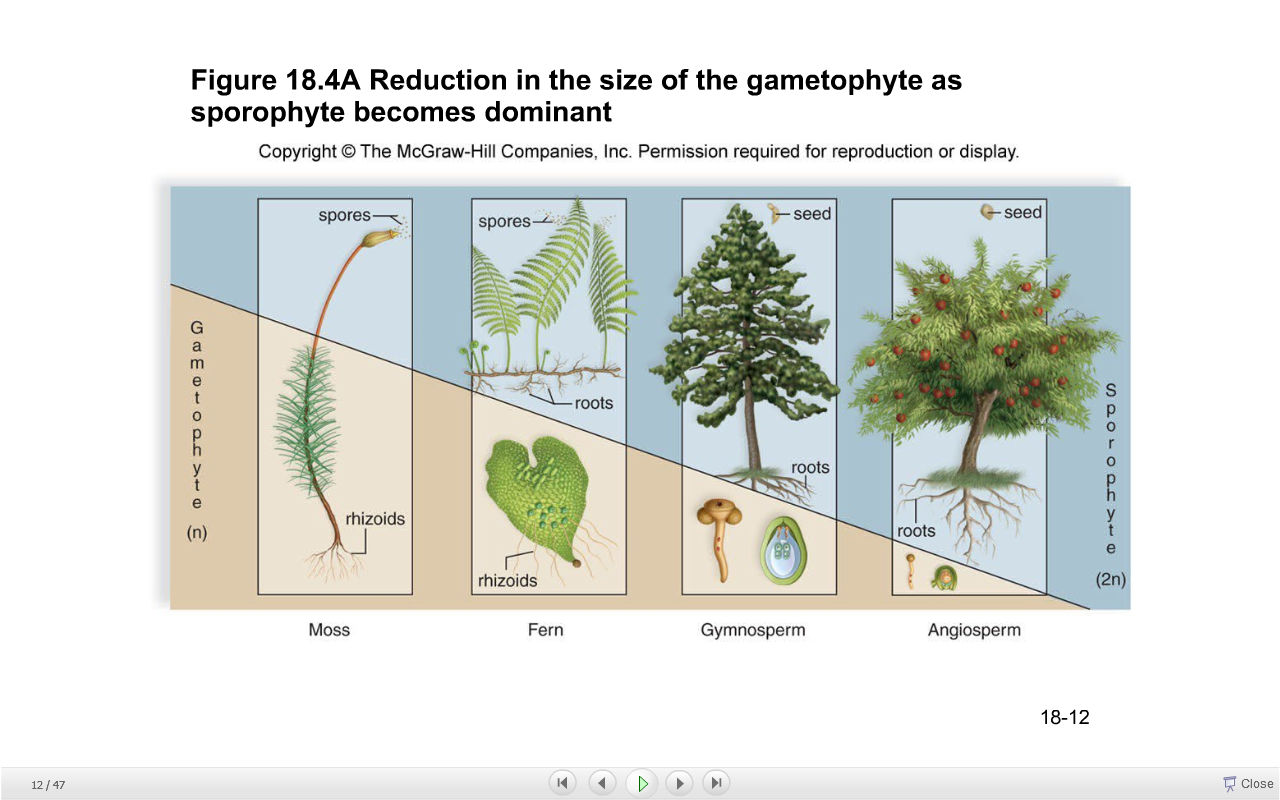
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was a major improvement in \_\_\_\_\_\_\_ based reproduction.

* While a few angiosperms still rely on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for their flowers (mainly trees), most angiosperm flowers are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pollinated
* This resulted in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ evolution between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (mostly insects)

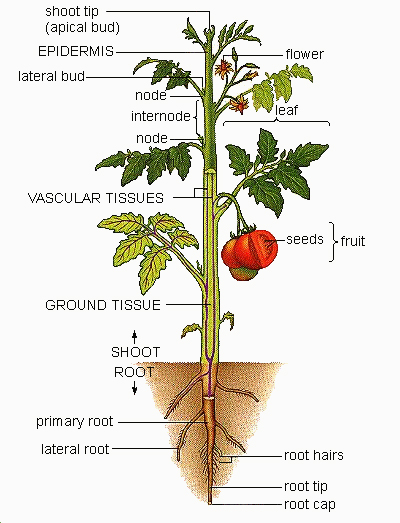
**Angiosperm Life Cycle**

****

**Sporophyte Most Dominant**

****

**Angiosperm Body Plan Overview**

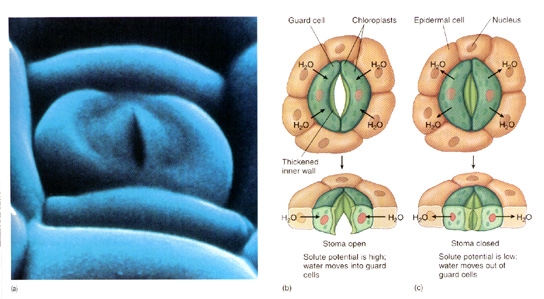


**Body Plan**

* The Angiosperms have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ principle organ systems:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Leaves: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Functioning**

****

**Leaves**

1. Stomata Opening

* When guard cells \_\_\_\_\_\_\_ water it causes them to become more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* This causes the stomata to get \_\_\_\_\_\_\_\_\_\_\_

2.Stomata Closing

* When guard cells \_\_\_\_\_\_\_\_\_\_\_ water and become \_\_\_\_\_\_\_\_\_\_\_\_\_ their shape becomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bean shaped
* This causes the stomata to \_\_\_\_\_\_\_\_\_\_\_\_\_

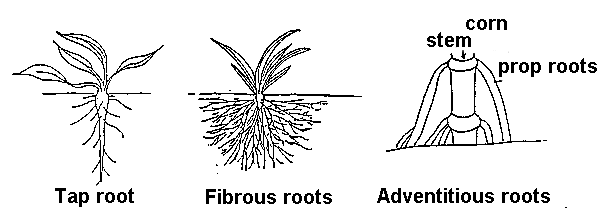
**Stems**

Stems are responsible for:

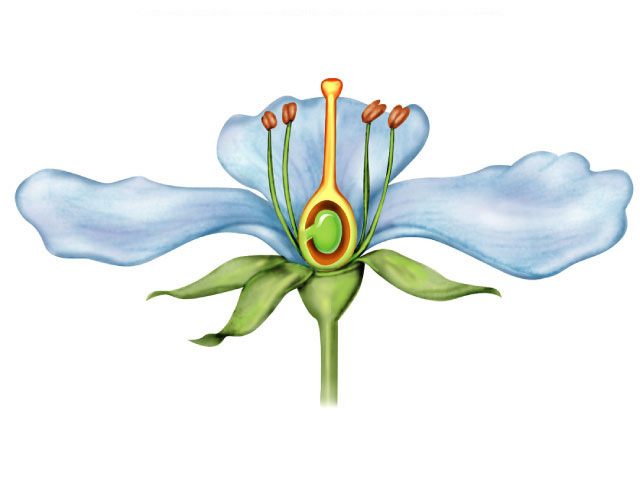
* Conduction of materials \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the plant
* Orienting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the sun
* Providing structural \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the plant
* Growth of the plant in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Roots**

* Roots function to absorb \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the soil as well as to \_\_\_\_\_\_\_\_\_\_\_\_\_ the plant



**Flower**



* Function to attract a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Modified shoot with 4 rings of modified \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_
    - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_
    - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Co-evolution: Flowers and Pollinators**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Angiosperms: \_\_\_\_\_\_\_\_\_\_\_\_ Plants**

Write down 3 examples of fruits from the pictures on this slide:

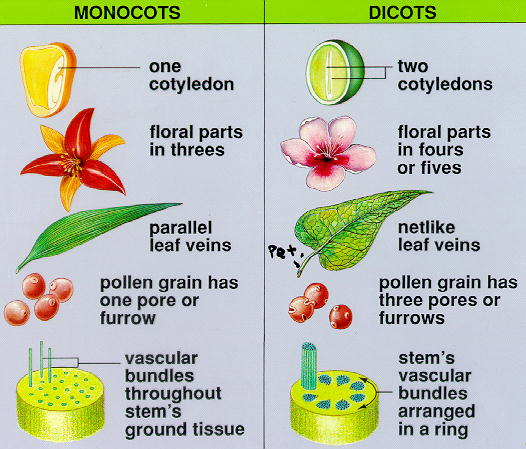
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Seed & Plant Embryo**

* Seed offers…
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for embryo
  + stored \_\_\_\_\_\_\_\_\_\_\_\_\_\_ for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of embryo
* cotyledons = “seed” leaves, first leaves of new plant

**Monocots & Dicots**

* Angiosperm are divided into \_\_\_\_\_\_\_classes
  1. \_\_\_\_\_\_\_\_\_\_\_\_\_ (eudicot)
     + 2 cotyledons (seed leaves)
     + leaves with network of \_\_\_\_\_\_\_\_\_\_\_
     + woody plants, trees, shrubs, beans
  2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_



* + - 1 cotyledon
    - leaves with \_\_\_\_\_\_\_\_\_\_\_\_\_\_ veins
    - grasses, palms, lilies