Biology 10

Objectives

- **Describe the adaptations the angiosperms developed that allowed them to be the most successful plants today.**
- **Compare and contrast monocots and dicots.**
- **Explain what annual, biennial and perennial plants are.**
- **Identify the parts of a flower**

Division Anthophyta

- **Also called "_____"**
- **Most successful plants on the planet.**
  - **Reasons:**
    - **1) Development of the _____:**
      - **flower's job is to attract pollinators, so plant doesn't have to produce as much pollen as gymnosperms**
    - **2) Development of the _____**
      - **fruit's job is to protect plant embryo**
      - **also aids in seed dispersal**

Angiosperm Classification

- **Used to be just two groups**
  - o _____
  - o _____
- **Now, the dicots have been broken into several clades, including:**
  - o **Amborella Clade**
  - o **Water Lily Clade**
  - o **Magnoliid Clade**
  - o **Eudicots**

Monocots vs Dicots

- **Monocots:**
  - **plant embryo has one _____ (seed leaf)**
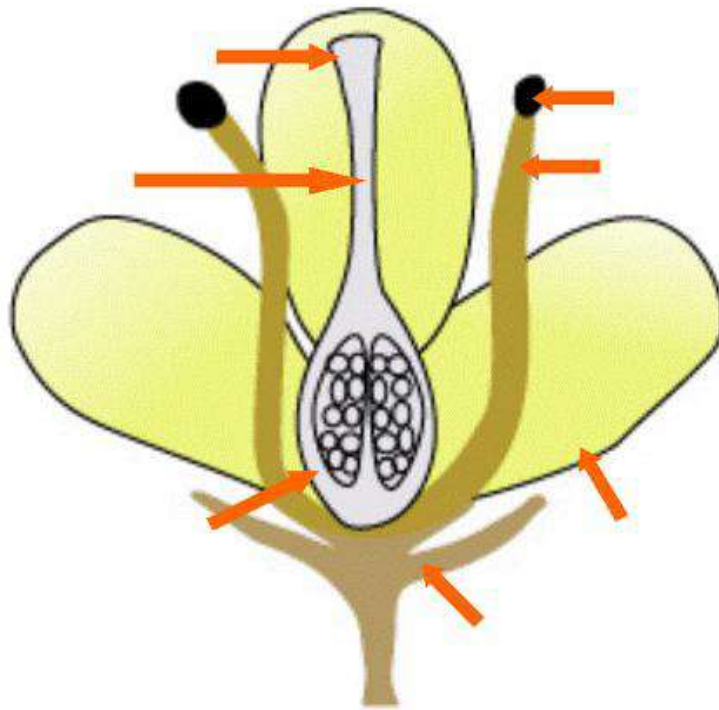 - **flowers have parts in multiples of _____**
  - **usually _____ veins**

- _____
- **ex:** _____
- **Dicots:**
  - **plant embryo has _____ cotyledons**
  - **flowers have parts in multiples of _____**
  - **_____ veins**
  - **_____**
  - **larger group of plants, includes _____ (except conifers, palms)**

Anthophytan Life Cycles

- **annuals:** **plant lives for _____**

  - **most herbaceous: _____**
  - **seeds are built to survive winters**

- **biennials:** **plant lives for _____**
  - **first year, plant grows _____ for food storage**
  - **over winter, plant _____, survives on food stored by root**
  - **second year, plant produces _____**
- **perennials:** **plant lives for _____**
  - **produces flowers/seeds periodically**
  - **many have _____stems**

Anatomy of a Flower

- **petals:** **generally, colorful parts of the flower**
  - **used to attract pollinators**
- **sepals:** **leaves used to protect the young flower bud**
- **stamen:** **male flower structure, consists of**
  - **anther: pollen-producing tip of stamen**
  - **filament: stalk that attaches anther to flower**
- **pistil:** **female flower structure, consists of:**
  - **stigma:** **sticky tip to which _____**

  - **style:** **stalk of pistil that _____**

  - **ovary:** **contains the ovules, _____**
  - **ovule:** **contains egg cell, develops into the seed**

Label the Flower Above