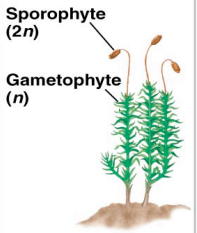

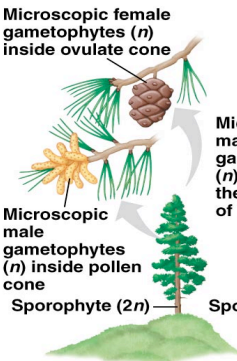
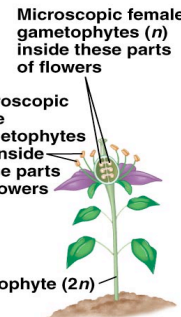


Name _____

AP Biology**Chapter 30 - Plant Diversity II: The Evolution of Seed Plants****Guided Reading Assignment Campbell's 10th Edition****Essential Knowledge**

None

1. What are some of the advantages to having a reduced gametophyte in plants?
2. Use the diagram below to compare the chromosome number of the four main plant groups.

	PLANT GROUP		
	Mosses and other nonvascular plants	Ferns and other seedless vascular plants	Seed plants (gymnosperms and angiosperms)
Gametophyte	Dominant	Reduced, independent (photosynthetic and free-living)	Reduced (usually microscopic), dependent on surrounding sporophyte tissue for nutrition
Sporophyte	Reduced, dependent on gametophyte for nutrition	Dominant	Dominant
Example	 <p>Sporophyte (2n) Gametophyte (n)</p>	 <p>Sporophyte (2n) Gametophyte (n)</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Gymnosperm</p>  <p>Microscopic female gametophytes (n) inside ovulate cone Microscopic male gametophytes (n) inside pollen cone Sporophyte (2n)</p> </div> <div style="text-align: center;"> <p>Angiosperm</p>  <p>Microscopic female gametophytes (n) inside these parts of flowers Microscopic male gametophytes (n) inside these parts of flowers Sporophyte (2n)</p> </div> </div>

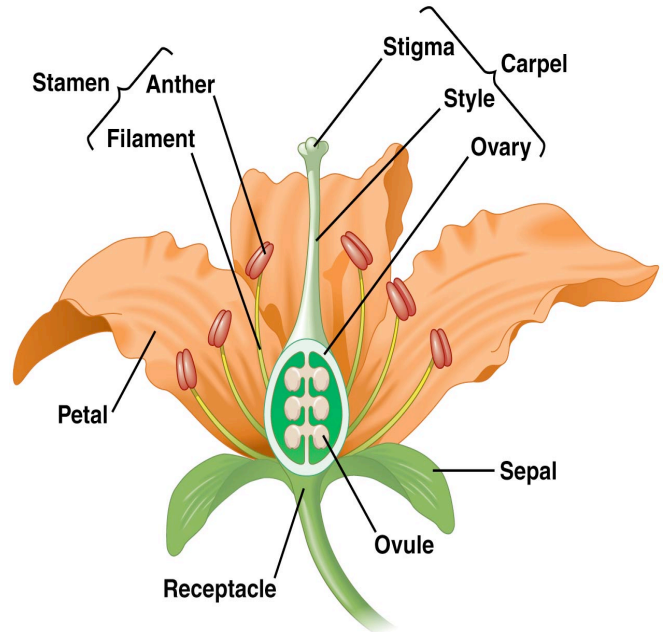
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3. What are the evolutionary advantages to seed formation?
4. What does the term Gymnosperm mean?

5. What is the common name of Angiosperms?

6. Describe the function the following structures:

- a. Flower
- b. Sepals
- c. Petals
- d. Stamen
- e. Filament
- f. Anther
- g. Stigma
- h. Style
- i. Ovary
- j. Pistil
- k. Fruit



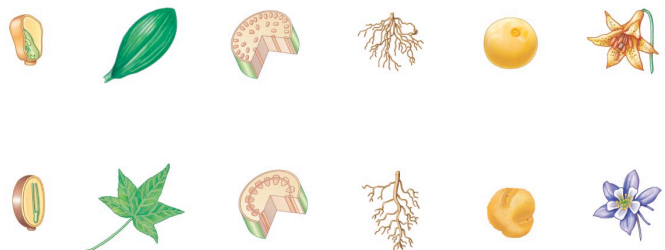
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7. Describe the process of double fertilization

8. What is a cotyledon?

9. What function does the endosperm serve?

10. Why do we now know that monocot and dicot classification of angiosperms does not completely reflect the evolution of these plants? What is the newer classification system?



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11. Label the monocots and dicots in the diagram

