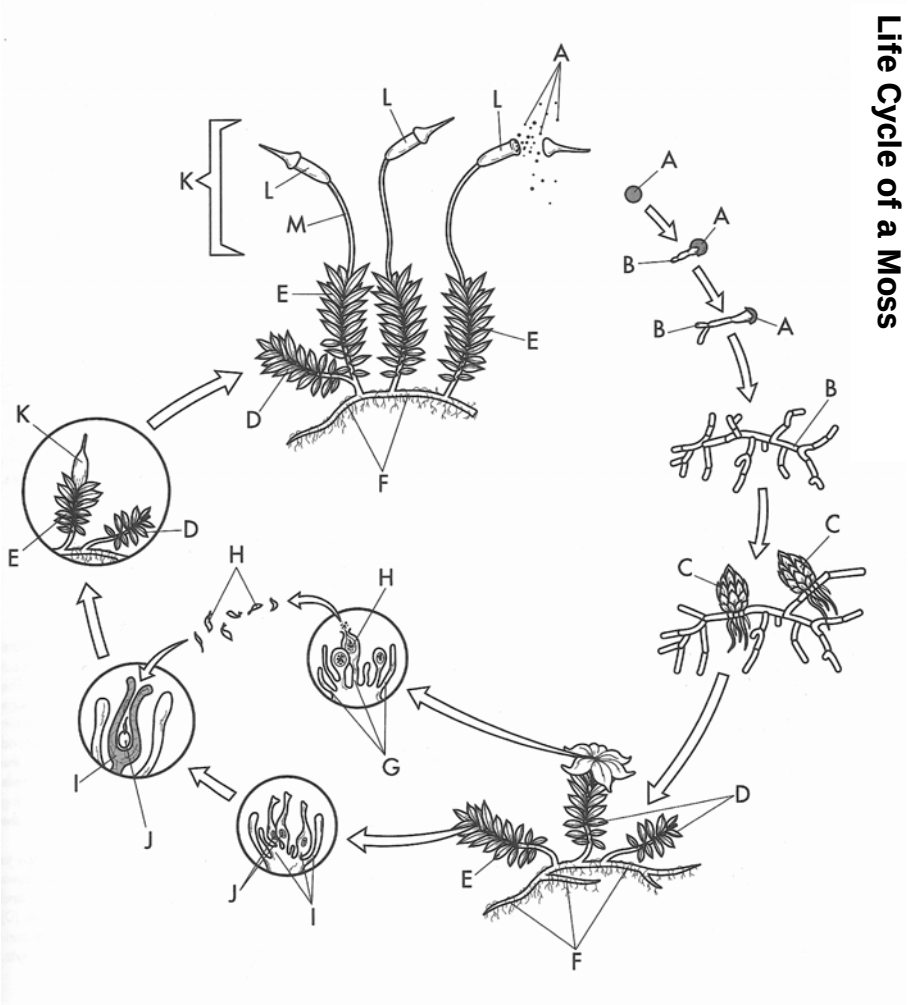
AP BIOLOGY
PLANTS FORM AND FUNCTION
ACTIVITY #6

NAME_____
DATE_____HOUR_____

PLANT REPRODUCTION

1. Match the structure with the correct letter from the diagram.

_____ Archegonia
_____ Sperm cells
_____ Stalk
_____ Capsule
_____ Male gametophyte
_____ Gametophyte bud
_____ Antheridia
_____ Capsule
_____ sporophyte
_____ Rhizoids
_____ Protonema
_____ Egg cell
_____ Spore
_____ Female gametophyte



2. Review the life cycle of a typical moss plant by filling in the following blanks.

The dominant generation is the (a)_____.

Female gametophytes produce eggs in (b)_____.

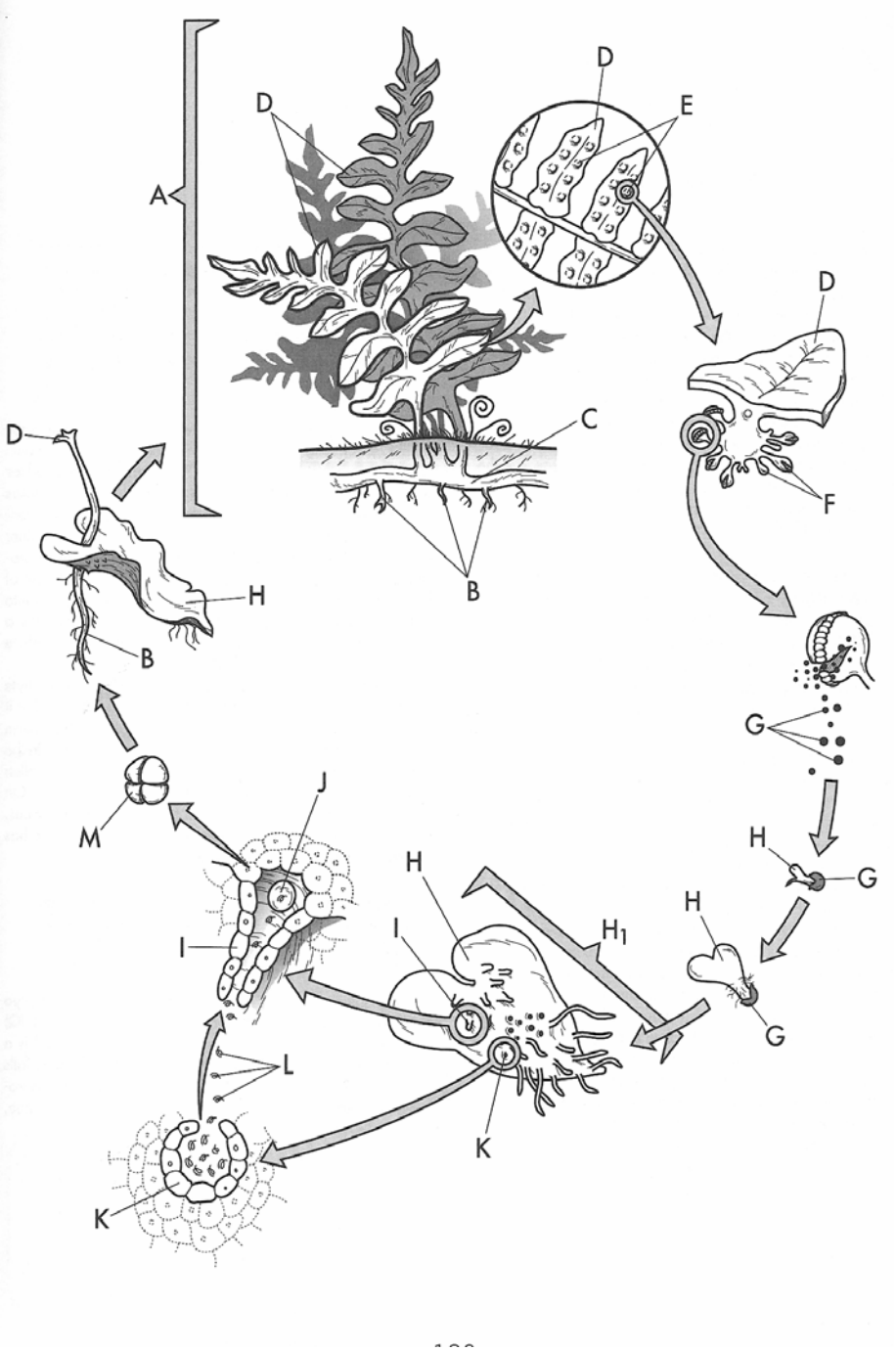
Male gametophytes produce sperm in (c)_____.

Sperm (d)_____ through the damp environment to fertilize the egg.

The zygote remains in the archegonium and grows into the (e)_____ still attached to the female gametophyte.

Spores are formed by the process of (f) _____ in the (g)_____.

When shed, spores develop into the (h)_____.



LIFE CYCLE OF A FERN

3. Match the structure with the correct letter from the diagram.

_____ Leaves
_____ Zygote
_____ Sperm cells
_____ Gametophyte
_____ Prothallus
_____ Rhizome
_____ Roots
_____ Spore
_____ Sporangia
_____ Antheridium
_____ Egg cell
_____ Sporophyte
_____ Sori
_____ Archegonium

4. Spores are produced by (mitosis/meiosis).

5. Gametes are produced by (mitosis/meiosis).

6. The archegonia and antheridia are (haploid/diploid).

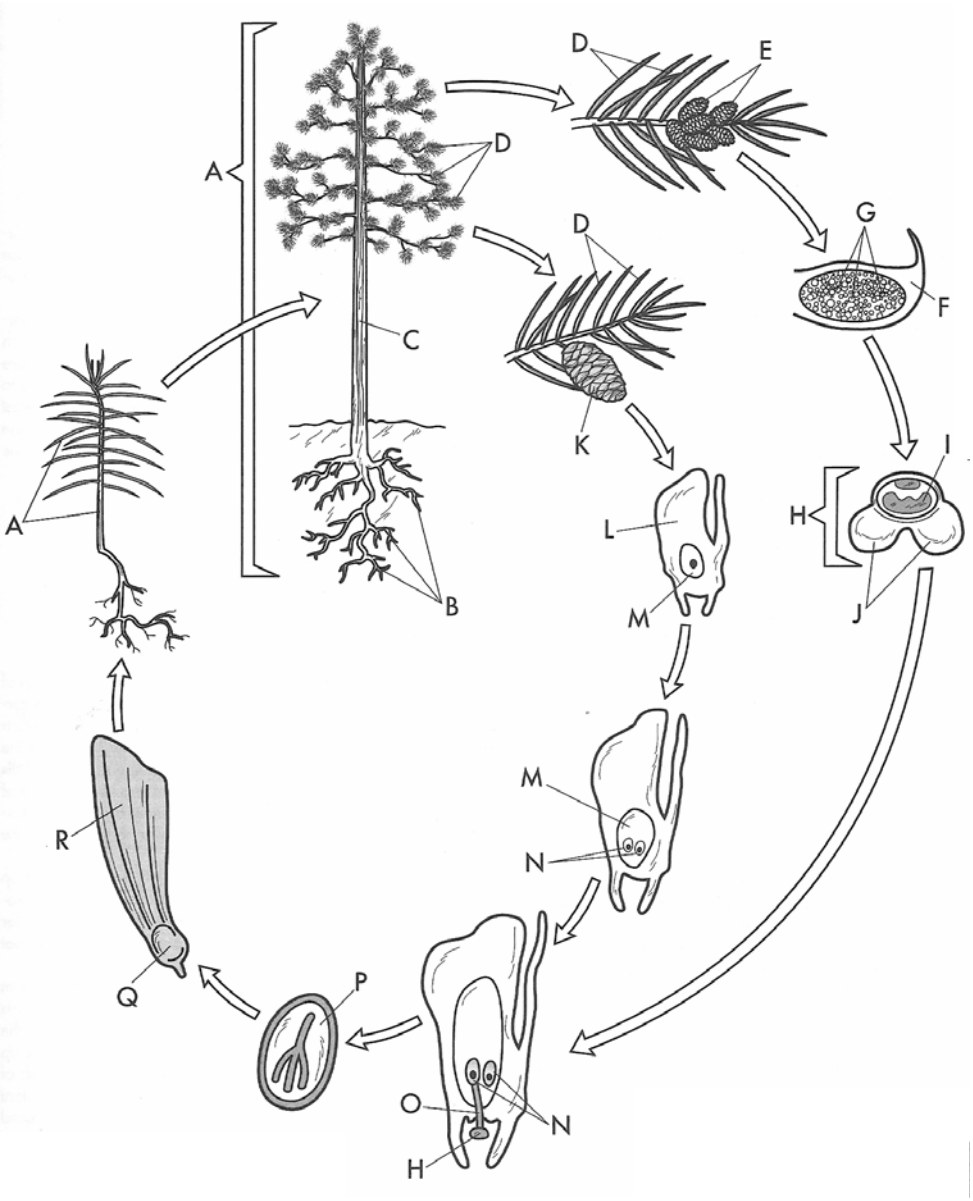
7. The dominant generation of a fern is (sporophyte/gametophyte).

8. Explain how the life cycle of a fern differs from that of mosses:

Life Cycle of a Pine

9. Match the structure with the correct letter from the diagram.

____ Wing
____ Ovulate (Seed) Cone
____ Pollen Cones
____ Leaves
____ Air Sacs
____ Seed
____ Embryo
____ Male Gametophyte
____ Stem
____ Pollen Tube
____ Pollen Grain
____ Roots
____ Microspores
____ Female Gametophyte
____ Sporophyte
____ Sporangium
____ Ovule
____ Egg Cell



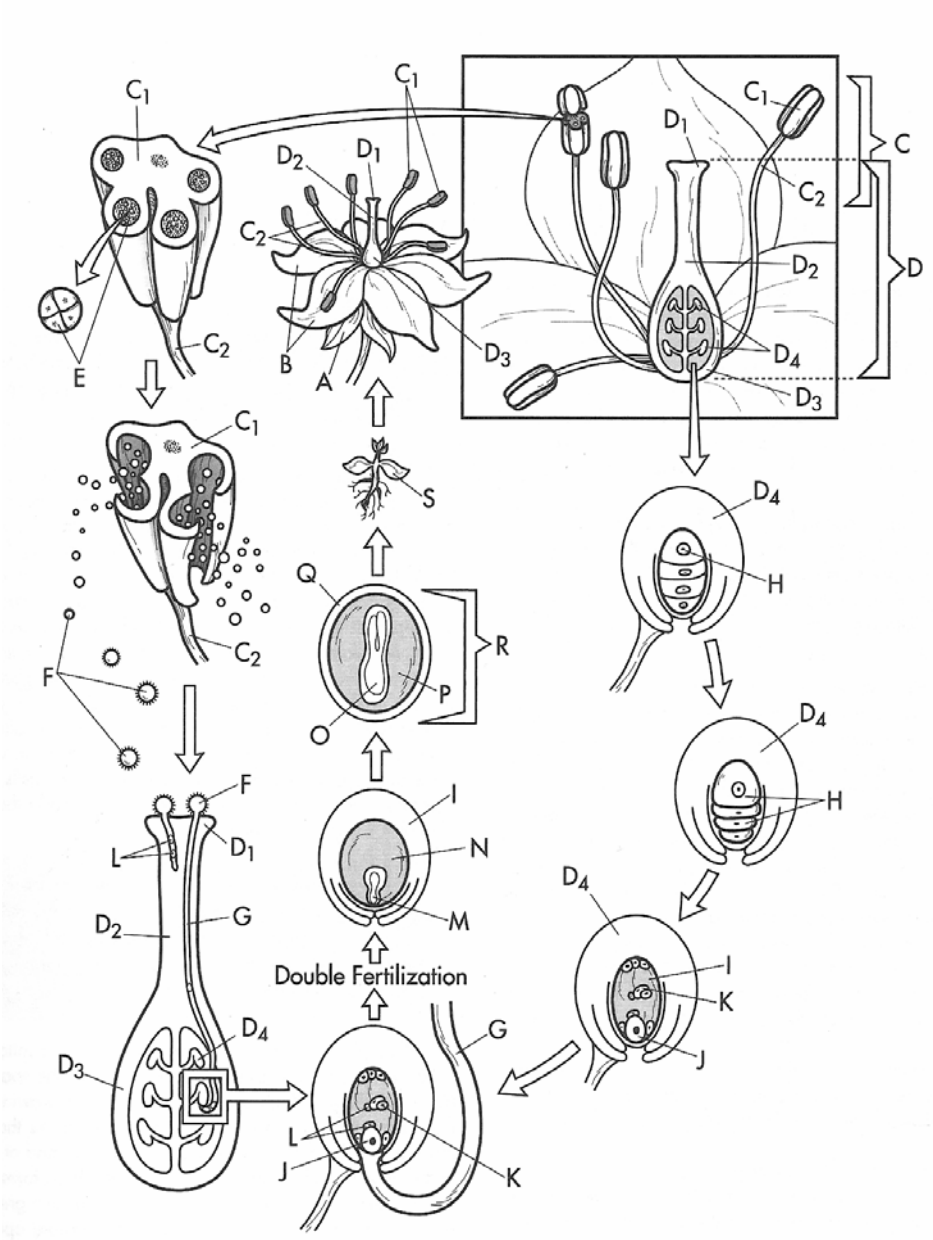
10. In the diagram of the life cycle of a pine, label structures where meiosis, pollination and fertilization take place. Draw a box around each term.

11. Which structures represent the gametophyte generation?

12. Why is the evolution of pollen an important terrestrial adaptation?

Life Cycle of a Flowering Plant

13. Match the structure with the correct letter from the diagram.



	Sepals
	Petals
	Ovary
	Sperm nuclei
	Ovule
	Zygote
	Stamen
	Microspores
	Endosperm
	Anther
	Pollen grain
	Embryo
	Endosperm tissue
	Pollen tube
	Filament
	Pistil
	Seed coat
	Megaspores
	Female gametophyte
	Seed
	Stigma
	Seedling
	Egg nucleus
	Style
	Polar nuclei

14. What constitutes the gametophyte generation of an angiosperm?

15. What does a seed consist of?

16. What is the possible function of double fertilization?