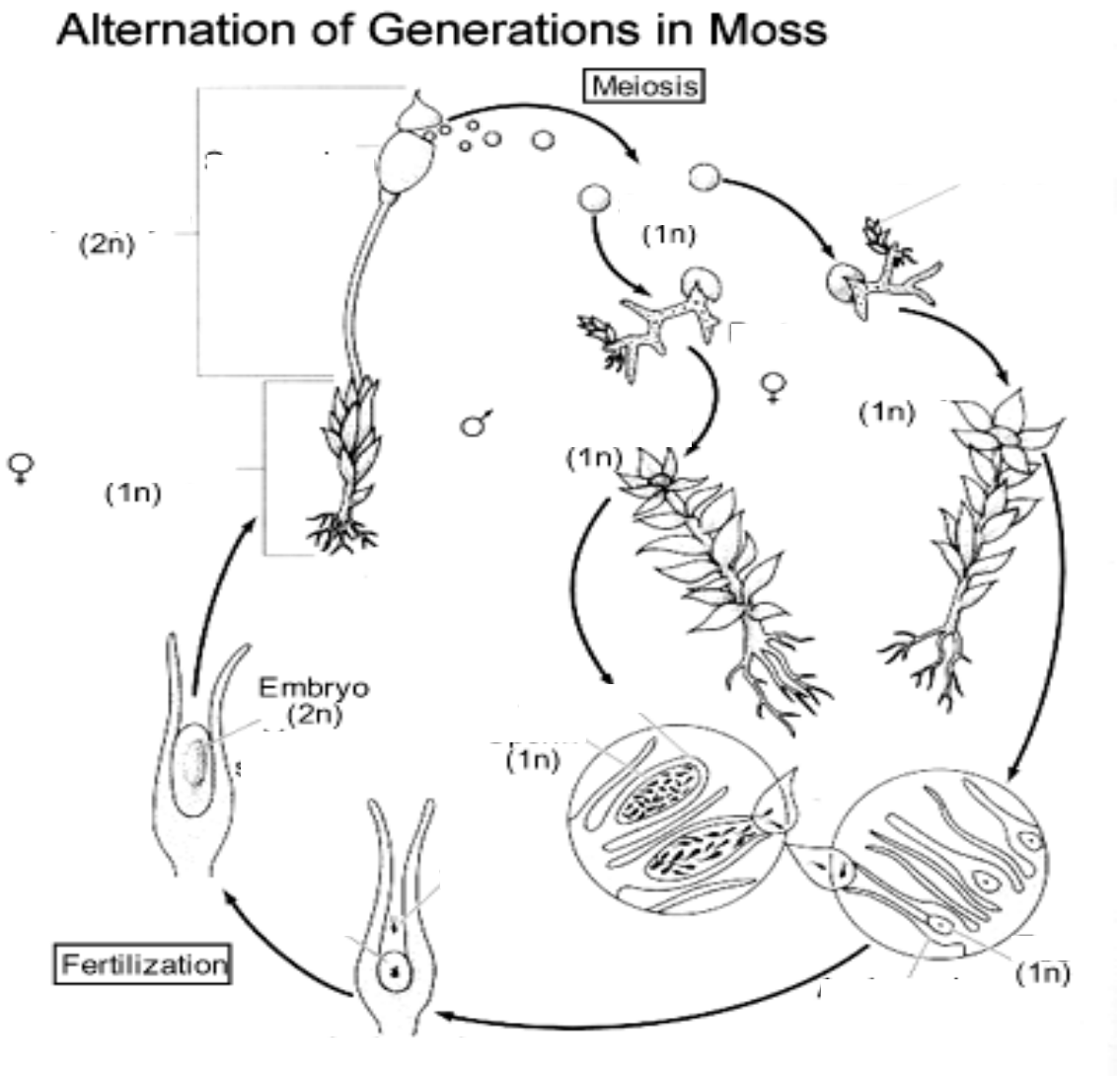
Land Plants: Bryophytes



Identify and label these structures

- sporophyte
- spores
- gametophyte
- archegonium
- antheridium
- rhizoids
- sperm
- egg
- protonema

1. Are the gametes in mosses haploid or diploid?

2. Which generation produces the gametes?

3. Is the sporophyte haploid or diploid?

4. Are the spores haploid or diploid?

5. What is the name of the generation that a germinating spore gives rise to? Is it haploid or diploid?

6. (a) What are two of the problems that the first land plants had to overcome?

(b) How did bryophytes overcome these problems?

7. Which stage is dominant in the life cycle of bryophytes?

8. Discuss two reasons why bryophytes must live in wet habitats

9. (a) How do bryophytes avoid being blown away?

(b) Do the structures in part (a) aid in water transportation?

10. Can the sporophyte of mosses live independently? Why or why not?

11. What type of relationship exists between the sporophyte and the gametophyte? (What is it called) Explain the relationship.

12. How do liverworts reproduce asexually? Does this process increase or decrease genetic variation?