

# Gametophyte and Sporophyte Generations in Mosses

Biology · Answer Key · 20 Questions

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**1. What is the plant body of the gametophyte generation in mosses known as?**

- A) A true stem
- B) A thallus**
- C) A rhizome
- D) A sporophyte

**2. Do mosses have true roots, stems, and leaves?**

- A) Yes
- B) No**
- C) Only true roots
- D) Only true stems

**3. What type of covering do mosses lack on their structures, which is present on true leaves?**

- A) A waxy cuticle**
- B) A protective bark
- C) A layer of cells
- D) A stomatal layer

**4. The absence of a cuticle in mosses allows them to absorb water directly through which part of the plant body?**

- A) Only through the rhizoids
- B) Only through the leaf-like structures
- C) Any part of the plant body (thallus)**
- D) Only through specialized pores

**5. Are mosses considered vascular or non-vascular plants?**

- A) Vascular
- B) Non-vascular**
- C) Both vascular and non-vascular
- D) Neither

**6. Which vascular tissues are absent in mosses?**

- A) Xylem and phloem**
- B) Cambium and vascular cambium
- C) Phloem and sieve tubes
- D) Xylem and tracheids

7. Due to their non-vascular nature, how do mosses absorb water?

- A) Only from the soil
- B) Directly from the soil and the air**
- C) Only from the air
- D) Through specialized root hairs

8. What are spores in the moss life cycle?

- A) Sexual reproductive structures
- B) Asexual reproductive structures**
- C) Structures for water absorption
- D) Structures for photosynthesis

9. Spores are formed by which generation of the moss life cycle?

- A) Gametophyte generation
- B) Sporophyte generation**
- C) Both generations equally
- D) Neither generation

10. In what structure are spores formed within the sporophyte generation?

- A) A sporangium called the capsule**
- B) A sporangium called the archegonium
- C) A sporangium called the antheridium
- D) A sporangium called the rhizoid

11. What is required for sperm to move to the ovum for fertilization in mosses?

- A) Air currents
- B) Wind
- C) Water**
- D) Insects

12. What is the term for the structure that anchors the gametophyte to the substrate?

- A) Seta
- B) Foot
- C) Rhizoid**
- D) Capsule

13. The 'foot' is part of which generation in the moss life cycle?

- A) Gametophyte
- B) Sporophyte**
- C) Both
- D) Neither

**14. The 'seta' is a stalk-like structure that connects which two parts of the sporophyte?**

A) Rhizoid and capsule

**B) Foot and capsule**

C) Gametophyte and capsule

D) Leaf-like structure and foot

**15. Mosses lose water easily due to the absence of what?**

A) Rhizoids

**B) Cuticle**

C) Vascular tissue

D) Spores

**16. What does the term 'non-vascular' imply about a plant?**

A) It has no roots

B) It has no stems

**C) It lacks specialized conducting tissues like xylem and phloem**

D) It cannot reproduce

**17. The sporophyte generation is responsible for producing which structures?**

A) Thallus

B) Rhizoids

**C) Spores**

D) Sperm

**18. What term describes the 'leaf-like structure' found on some moss gametophytes?**

A) True leaf

B) Scale

**C) Appendage**

D) None of the above

**19. Fertilisation in mosses requires the sperm to reach the ovum. This process is an example of dependency on what for reproduction?**

A) Sunlight

B) Carbon dioxide

**C) Water**

D) Nutrients

**20. The 'foot' in the sporophyte generation is embedded within what?**

- A) The soil
- B) The capsule
- C) The gametophyte**
- D) The air