

## Structure and Function in Living Systems

Name:

### Seedless Plants

Period:

Use Chapter 12, Section 2 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them.

damp environment first humans rhizoids sexually water

#### Section 2: Seedless Plants (p.364)

- \_\_\_\_\_ 1. What are the two groups of seedless plants?
- gymnosperms and angiosperms
  - rhizoids and rhizomes
  - seedless vascular plants and nonvascular plants
  - gametophytes and sporophytes

#### Nonvascular Plants

2. Nonvascular plants do not have tissue to transport \_\_\_\_\_ or nutrients.
3. Because they don't have vascular tissue, nonvascular plants must get water from nearby cells or from the \_\_\_\_\_.
4. \_\_\_\_\_ places are good locations for nonvascular plants to live.

#### Mosses

5. Mosses have \_\_\_\_\_ instead of roots to help them get nutrients and water.
6. Look at Figure 1. This shows how mosses can reproduce \_\_\_\_\_.

- \_\_\_\_\_ 7. What are the two stages of the moss life cycle called?
- egg and sperm
  - gametophyte and sporophyte
  - swimming and fertilizing
  - air and water

#### Liverworts and Hornworts (p.365)

- \_\_\_\_\_ 8. What do the gametophytes of hornworts look like?
- leafy and mosslike
  - rhizoids
  - broad and flattened
  - mosses



#### The Importance of Nonvascular Plants

9. Nonvascular plants are usually the \_\_\_\_\_ plants to grow in a new environment.
- \_\_\_\_\_ 10. How do nonvascular plants help the soil?
- They reduce soil erosion.
  - They keep the soil warm.
  - They keep the soil wet.
  - They make the soil thin.
- \_\_\_\_\_ 11. How do animals use nonvascular plants?
- for food and fuel
  - for food and nesting material
  - in potting soil
  - for nesting material and water
12. \_\_\_\_\_ use dried peat moss for potting soil and fuel.

*turn over for more questions*

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hollow larger life cycles rhizome sexually smaller vascular tissue wet

#### Seedless Vascular Plants (p.365)

13. Modern seedless vascular plants are much \_\_\_\_\_ than their giant ancestors.
14. Having vascular tissue means that they can be \_\_\_\_\_ than nonvascular plants.
- \_\_\_\_\_ 15. What is vascular tissue specialized to do?
- a. It helps the plant reproduce.
  - b. It transports water to all of a plant's cells.
  - c. It makes food for the plant.
  - d. It protects the plant from insects.

#### Ferns (p.366)

16. Most ferns have a \_\_\_\_\_, which is an underground stem.
17. Look at Figure 3. This shows how ferns can reproduce \_\_\_\_\_.



#### Horsetails and Club Mosses

18. Like other seedless vascular plants, horsetails grow where it is \_\_\_\_\_.
19. The stems of horsetails are \_\_\_\_\_.
20. Unlike mosses, club mosses have \_\_\_\_\_.
21. Horsetails, club mosses, and ferns have similar \_\_\_\_\_.

#### The Importance of Seedless Vascular Plants (p.367)

- \_\_\_\_\_ 22. How do ferns, horsetails, and club mosses help the environment?
- a. They form soil.
  - b. They make silica.
  - c. They decrease soil depth.
  - d. They create forests.
- \_\_\_\_\_ 23. How do ferns in rocky places help other plants grow?
- a. They make the area beautiful.
  - b. They add to soil depth.
  - c. They decrease soil depth.
  - d. They create erosion.
- \_\_\_\_\_ 24. What can horsetails be used for?
- a. shampoo
  - b. iron smelting
  - c. clothing
  - d. transportation
- \_\_\_\_\_ 25. Which fuels were formed by seedless plants that died 300 million years ago?
- a. nuclear fuel and coal
  - b. coal and oil
  - c. hydrogen and oxygen
  - d. oil and water