

Chapter 11, continued

Each of the following phrases is a characteristic of either vascular or nonvascular plants. In the space provided, write *V* for vascular plants or *N* for nonvascular plants.

- 15. \_\_\_\_\_ must be small
- 16. \_\_\_\_\_ some produce seeds
- 17. \_\_\_\_\_ can be any size

Choose the main group of living plants in Column B that best matches the definition in Column A, and write the corresponding letter in the space provided.

Column A	Column B
____ 18. vascular, seed-bearing plants with flowers	a. ferns, horsetails, and club mosses
____ 19. vascular, non-seed-bearing plants	b. gymnosperms
____ 20. nonvascular plants	c. mosses and liverworts
____ 21. vascular, seed-bearing plants without flowers	d. angiosperms

**Review** (p. 253)

Now that you've finished Section 1, review what you learned by answering the Review questions in your ScienceLog.

**Section 2: Seedless Plants** (p. 254)

- 1. There are \_\_\_\_\_ groups of seedless plants.

**Mosses and Liverworts** (p. 254)

- 2. Why would you have a hard time finding moss growing in the hot, dry desert?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3. Rhizoids are like roots because
  - a. they contain vascular tissue.
  - b. they do not contain vascular tissue.
  - c. they help hold the plant in place.
  - d. None of the above

**Chapter 11, continued**

4. During the moss life cycle, shown in Figure 7,  
 \_\_\_\_\_ carries the sperm cells to the egg.
5. Which of the following are true of liverworts?  
 (Circle all that apply.)
- a. They are nonvascular plants.
  - b. They can live in very dry places.
  - c. Only 60 species of liverworts exist today.
  - d. Their gametophytes can be mosslike and leafy.
6. Some people might say that mosses are worth more dead than alive. Give two examples of how this is true.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Ferns, Horsetails, and Club Mosses** (p. 255)

7. The development of a vascular system allowed some ancient plants to grow very tall. True or False? (Circle one.)

Choose the word or phrase in Column B that best matches the definition in Column A, and write the corresponding letter in the space provided.

Column A	Column B
___ 8. the underground stem of most ferns	a. fern gametophyte
___ 9. produces spores	b. fronds
___ 10. wiry fern leaves and roots	c. fern sporophyte
___ 11. small heart-shaped plant that produces both sperm cells and eggs	d. rhizome
___ 12. young fern leaves	e. fiddleheads

13. Ferns rely on water to bring sperm cells to eggs. True or False? (Circle one.)
14. Horsetails feel gritty because their stems contain  
 \_\_\_\_\_.
15. While mosses and club mosses may look similar, only  
 \_\_\_\_\_ have vascular tissue.

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Chapter 11, continued

16. Are seedless vascular plants that have been dead for 300 million years important today? Explain.

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**Review** (p. 257)

Now that you've finished Section 2, review what you learned by answering the Review questions in your ScienceLog.

**Section 3: Plants with Seeds** (p. 258)

1. \_\_\_\_\_ produce seeds in cones or fleshy structures on stems.
2. Apple trees and grasses are \_\_\_\_\_ and produce their seeds within a \_\_\_\_\_.

**Characteristics of Seed Plants** (p. 258)

Mark each of the following statements *True* or *False*.

3. \_\_\_\_\_ Seeds nourish and protect young sporophytes.
4. \_\_\_\_\_ Seed plant gametophytes live independently of the sporophyte.
5. \_\_\_\_\_ The male gametophytes of seed plants need water to travel to the female gametophyte.
6. \_\_\_\_\_ The most successful plants on Earth today are seed plants.

**What's So Great About Seeds?** (p. 259)

7. In a seed, a young plant and \_\_\_\_\_ food are surrounded by a seed \_\_\_\_\_.
8. Take a moment to look at the Environmental Science Connection in the right column. Why do some seeds need to be eaten to grow?

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