Chapter 22

The Diversity of Plants

Reinforcement and Study Guide

Section 22.1 Nonvascular Plants

In your textbook, read about nonvascular plants—bryophyta, hepatophyta, and anthocerophyta.

Complete each statement.

1. Nonvascular plants are successful in habitats with adequate _____ .
2. The _____ generation is dominant in nonvascular plants.
3. Sperm are produced in male reproductive structures called _____ , and eggs are produced in female reproductive structures called _____ .
4. Mosses have colorless multicellular structures called _____ , which help anchor the stem to the soil.
5. Most liverworts have _____ that helps reduce evaporation of water from the plant's tissues.
6. Liverworts occur in many environments and include two groups: the _____ liverworts and the _____ liverworts.
7. One unique feature of hornworts is the presence of a(n) _____ in each cell.
8. The common names for the nonvascular plants, Bryophyta, Hepatophyta, and Anthocerophyta are _____ , _____ , and _____ .

Circle the letter of the response that best completes the statement.

9. Nonvascular plants are not as common or as widespread as vascular plants because
   - **a.** nonvascular plants are small.
   - **b.** the life functions of nonvascular plants require a close association with water.
   - **c.** nonvascular plants are limited to dry habitats.
   - **d.** none of the above.
10. The life cycle of nonvascular plants includes an alternation of generations between a
   - **a.** diploid sporophyte and a diploid gametophyte.
   - **b.** haploid sporophyte and a haploid gametophyte.
   - **c.** diploid sporophyte and a haploid gametophyte.
   - **d.** haploid sporophyte and a diploid gametophyte.
11. Fossil and genetic evidence suggests that the first land plants were
   - **a.** mosses.
   - **b.** sphagnum moss.
   - **c.** liverworts.
   - **d.** hornworts.