Chapter 23

Plant Structure and Function

Reinforcement and Study Guide

Section 23.1 Plant Cells and Tissues

In your textbook, read about plant cells and tissues.

Match the definitions in Column 1 with the terms in describes from Column 2. Place the letter from Column 2 in the spaces under Column 1.

Column 1		Column 2
_____	**1.** The most abundant kind of plant cells	**a.** apical meristem
_____	**2.** Long cells with unevenly thickened cell walls. This type of cell wall allows the cells to grow.	**b.** collenchyma
_____	**3.** Cells with walls that are very thick and rigid. At maturity, these cells often die, leaving the cell walls to provide support for the plant.	**c.** companion cell
_____	**4.** Dermal tissue that is composed of flattened parenchyma cells that cover all parts of the plant	**d.** cork cambium
_____	**5.** Openings in the cuticle of the leaf that control the exchange of gases	**e.** epidermis
_____	**6.** Cells that control the opening and closing of the stomata.	**f.** guard cells
_____	**7.** Hairlike projections that extend from the epidermis	**g.** meristem
_____	**8.** Plant tissue composed of tubular cells that transports water and minerals from the roots to the rest of the plant	**h.** parenchyma
_____	**9.** Tubular cells, with tapered ends, which transport water throughout a plant	**i.** phloem
_____	**10.** Lateral meristem that produces a tough covering for the surface of stems and roots	**j.** sclerenchyma
_____	**11.** Vascular tissue that transport sugars from the leaves to all parts of the plant	**k.** sieve tube member
_____	**12.** Long, cylindrical phloem cells through which sugars and organic compounds flow	**l.** stomata
_____	**13.** Nucleated cells that help manage the transport of sugars and other organic compounds through the sieve cells of the phloem	**m.** tracheids
_____	**14.** Areas where new cells are produced	**n.** trichomes
_____	**15.** Growth tissue found at or near the tips of roots and stems	**o.** vascular cambium
_____	**16.** Tubular cells that transport water throughout the plant. These cells are wider and shorter than tracheids.	**p.** vessel element
_____	**17.** Lateral meristem that produces new xylem and phloem cells in the stems and roots	**q.** xylem