

Plant Cells

How do plant cells differ from animal cells?

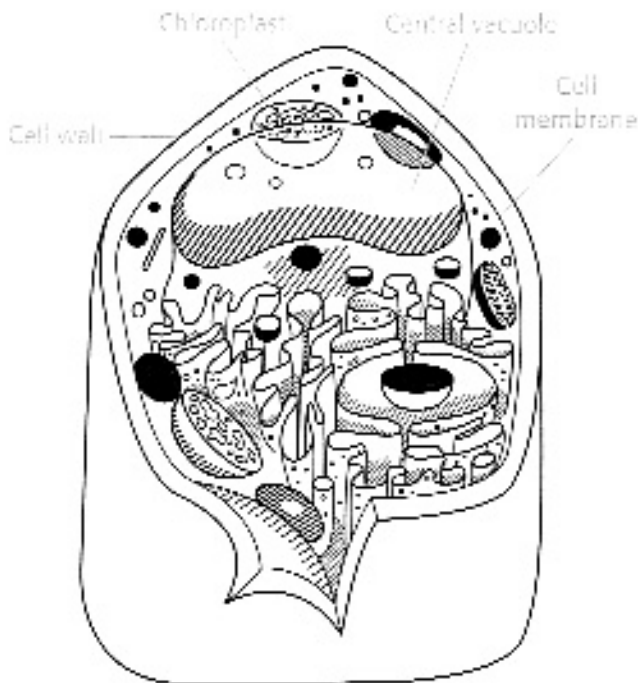
Like animal cells, plant cells have a cell membrane, nucleus, mitochondria, ribosomes, ER, and Golgi complexes. However, plant cells have structures not found in animal cells.

The **cell wall** is a rigid structure that surrounds the cell membrane. The cell wall is made of a tough material called **cellulose** that supports and protects the plant cell. The strength of many cell walls together allows a tree to grow tall without falling over.

Plant cells have large, liquid-filled organelles called **central vacuoles**. The liquid inside the central vacuole creates pressure that helps support the plant. Vacuoles also store nutrients and wastes. Some vacuoles contain pigments, like the red and blue pigments of flower petals. Vacuoles may contain chemical compounds that make the plant taste unpleasant to animals that try to eat it.

Plant cells have organelles called **chloroplasts**. Chloroplasts have a green pigment called **chlorophyll** that captures

the energy from sunlight. This energy is used to make food for the plant during **photosynthesis**.



Plant cells have cell walls, central vacuoles, and chloroplasts. These structures are not found in animal cells.

Show What You Know

List three ways that a plant cell is different from an animal cell.

- _____
- _____
- _____