



Vocabulary: Cell Structure



Vocabulary

- Capsule – the outermost layer of a bacterial cell that prevents harmful materials from entering, keeps the cell from drying out, and protects the bacterial cell from the immune cells of other organisms.
- Cell membrane – a double-layered membrane that surrounds the cell. Also called the *plasma membrane*, it regulates what enters and leaves the cell.
- Cell wall – the rigid, porous outer layer of a plant cell.
- Centriole – a bundle of microtubules that helps organize the movement of chromosomes during cell division.
- Chloroplast – an organelle that converts the radiant energy of the Sun into chemical energy through the process of photosynthesis.
- Cytoplasm – a jelly-like substance, composed mainly of water, occupying most of the space between the cell membrane and the nucleus.
- Cytoskeleton – filaments, including actin, microtubules, and microfilaments, that aid in cell movement and give the cell its shape.
- Endoplasmic reticulum – a network of passageways in which chemical compounds are manufactured, processed, and transported.
- Flagellum – a hair-like organelle that helps a cell move.
- Golgi apparatus – a stack of membranes that collects, modifies, and packages chemical compounds.
- Lysosome – a small sac, or *vesicle*, that contains digestive chemicals.
- Mitochondrion – an organelle that uses oxygen to convert nutrients into energy that can be used by the cell.
- Nuclear membrane – a double-layered membrane that surrounds and protects the nucleus.
- Nucleoid – a region inside a bacterial cell that contains genetic material. Unlike in plant and animal cells, the nucleoid in bacteria is not surrounded by a nuclear membrane.
- Nucleolus – a small body in the nucleus where ribosomes are synthesized.
- Nucleus – a round body in the center of the cell that contains DNA and regulates gene expression.



- Organelle – a cell structure that performs a specific function.
- Pilus – a hair-like structure that helps bacterial cells adhere to surfaces. Some pili are able to transfer genetic material to other cells.
- Plasmid – a small, circular piece of DNA separate from the genetic material in the nucleoid of a bacterial cell. Plasmids often contain genes that provide an advantage to the cell, like antibiotic resistance.
- Plastid – a small structure that can store food (*leucoplast*) or pigment (*chromoplast*).
- Ribosome – a tiny structure where proteins are synthesized.
- Vacuole – a type of vesicle that stores water, nutrients, and other chemicals. The large vacuole found in plant cells helps the cells maintain their shape.
- Vesicle – a small, sac-like package of nutrients, proteins, or water created by the Golgi apparatus. Types of vesicles include vacuoles and lysosomes.