

GLOSSARY

B

bacteria extremely small, single-celled organisms without a nucleus; prokaryotic cells

C

cell membrane a phospholipid layer that covers a cell's surface and acts as a barrier between the inside of a cell and the cell's environment

cell theory the three-part theory about cells that states: (1) All organisms are composed of one or more cells, (2) the cell is the basic unit of life in all living things, and (3) all cells come from existing cells

cell wall a structure that surrounds the cell membrane of some cells and provides strength and support to the cell membrane

chloroplast an organelle found in plant and algae cells where photosynthesis occurs

community all of the populations of different species that live and interact in an area

cytoplasm (SIET oh PLAZ uhm) cellular fluid surrounding a cell's organelles

D

DNA deoxyribonucleic (dee AHKS ee RIE boh noo KLEE ik) acid; hereditary material that controls all the activities of a cell, contains the information to make new cells, and provides instructions for making proteins

E

ecosystem a community of organisms and their nonliving environment

endoplasmic reticulum (EN doh PLAZ mik ri TIK yuh luhm) a membrane-covered cell organelle that produces lipids, breaks down drugs and other substances, and packages proteins for delivery out of the cell

eukaryotic cell (eukaryote) (yoo KER ee OHT) a cell that contains a central nucleus and a complicated internal structure

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G

Golgi complex the cell organelle that modifies, packages, and transports materials out of the cell

L

lysosome a special vesicle in a cell that digests food particles, wastes, and foreign invaders

M

mitochondria (MIET oh KAHN dree uh) cell organelles surrounded by two membranes that break down food molecules to make ATP

multicellular made of many cells

N

nucleus the membrane-covered organelle found in eukaryotic cells; contains the cell's DNA and serves as a control center for the cell

O

organ a combination of two or more tissues that work together to perform a specific function in the body

organ system a group of organs that works together to perform body functions

organelle (OHR guh NEL) a structure within a cell, sometimes surrounded by a membrane

organism anything that can independently carry out life processes

P

population a group of individuals of the same species that live together in the same area at the same time

prokaryotic cell (prokaryote) (proh KER ee OHT) a cell that does not have a nucleus or any other membrane-covered organelles; also called a bacterium

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R

ribosome a small organelle in cells where proteins are made from amino acids

S

surface-to-volume ratio the amount of a cell's outer surface in relationship to its volume

T

tissue a group of similar cells that work together to perform a specific job in the body

U

unicellular made of a single cell

V

vacuole (VAK yoo OHL) a large membrane-covered structure found in plant cells that serves as a storage container for water and other liquids

vesicle a membrane-covered compartment in a eukaryotic cell that forms when part of the cell membrane surrounds an object and pinches off