

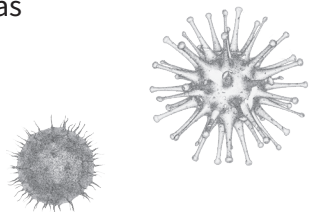
VOCABULARY LIST

KNOW YOUR MICROORGANISMS

Microbe (*noun*): a microscopic organism, such as a bacterium, virus, fungus, and amoeba.

Pathogen (*noun*): a medical term for any type of microbe that can cause disease, such as a bacterium or virus. In everyday language, pathogens are also known as germs or bugs.

Superbug (*noun*): an informal term for types of pathogens that can't be treated with medicine, such as bacteria that have mutated to be resistant to antibiotics or viruses for which we haven't found an effective vaccine.



help them survive in their environment and reproduce (pass on a new trait to new generations). Since organisms with the new trait survive better than those without the trait, the species changes over time.

replicate (*verb*): to make an exact copy.

specificity (*noun*): when medicines are only effective against a particular, specific organism or group of organisms (for example, antibiotics don't work against viruses).

vaccine (*noun*): a substance that helps protect against certain diseases by helping the immune system recognize and destroy specific microbes.

antibiotic (*noun, adjective*): medicine used against bacteria (not for viruses).

gene (*noun*): a small section of DNA that contains the instructions for making a specific protein. Proteins control the processes that occur in the body's cells.

host (*noun*): an organism that another organism lives in or on (which can be helpful or harmful or the host).

► **For example**, the human gut hosts "good" bacteria that help humans with digestion. Cells in

which disease-causing viruses live also act as hosts.

mutation (*noun*): a change in an organism's genes, which gives the organism a new trait, such as the ability to resist a medicine.

► **Note**: A mutation can be positive, negative, or neutral for an organism's survival.

natural selection (*noun*): a process through which species change and survive over time; the main process of evolution. Natural selection occurs when organisms develop new traits (through mutations) that better

TAKE IT FURTHER

Choose five vocabulary words that you think will be hardest to remember, then write a paragraph with them (nonfiction or fiction).