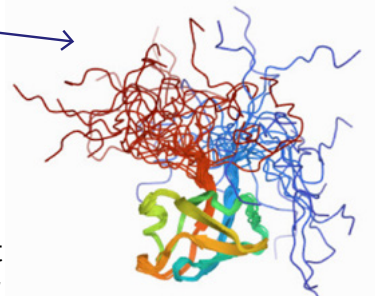
VOCABULARY LIST

BIOLOGY

DNA *(noun):* the molecule found in cells that carries instructions for cell structure and processes in the body. DNA contains genes that are passed on from parents to offspring and give living things their inherited characteristics. The letters *DNA* stand for **d**eoxyribo**n**ucleic **a**cid.

enzyme *(noun)*: a type of protein found in animals and plants that speeds up chemical reactions by reducing the amount of energy needed for the reactions to proceed.



gene *(noun)*: a small section of DNA that contains instructions, usually for making a specific protein.

mitochondrion *(noun;* plural is mitochondria*)*: an organelle (part of a cell) that converts food and oxygen into energy to fuel the cell.

neuron *(noun)*: a cell within the nervous system that transmits information to other nerves, muscles, or gland cells.

proteins *(noun)*: large, complex molecules that are essential for all life processes, playing a key role in the structure, function, and regulation of the body's cells, tissues, and organs.

RNA *(noun)*: the molecule that delivers a copy of the instructions in DNA so that cells can produce proteins according to the instructions. The letters *RNA* stand for **r**ibo**n**ucleic **a**cid.

TAKE IT FURTHER

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

IMAGING

crystallize *(verb):* to cause a material to organize into a crystal form in which its atoms or molecules are arranged in a highly ordered structure.

diffraction *(noun)*: the slight bending of light, or other waves (like X-rays), when passing around something in its path.

electron *(noun)*: a particle that orbits the nucleus of an atom and carries a negative electrical charge.

fluorescence *(noun)*: light that a substance (like a protein) first absorbs and then emits (gives off).

imaging *(noun)*: techniques used by scientists that make cellular, molecular, and atomic structures and processes visible.

laser *(noun)*: a very narrow beam of light, or a device that uses the vibrations of atoms or molecules to generate light.

light microscope *(noun)*: a type of microscope that uses light rays and curved glass lenses to magnify a specimen; also known as an optical microscope.

specimen *(noun)*: a sample or example of something that is used for scientific study.

structural biologist *(noun)*: a scientist who studies how biological molecules are built. Using a variety of imaging techniques, structural biologists view molecules in three dimensions to see how they are assembled, how they function, and how they interact.