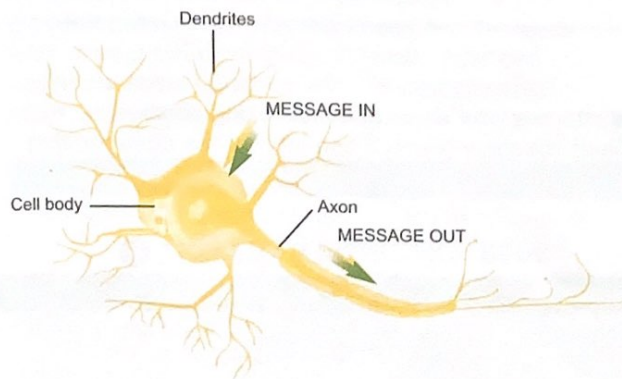


3 Apply the Skill

DIRECTIONS: Study the information and illustration, read the question, and choose the **best** answer.

NERVOUS SYSTEM

Cells in the human body are organized into systems, such as the nervous system. The nervous system includes the brain, the spinal cord, and about 100 billion nerve cells, or neurons. Neurons carry signals through the body that allow a person to move, sense things, think, and learn. The illustration shows a neuron.



2. Which detail from the illustration supports the main idea that neurons carry signals to allow a person to move, sense things, think, and learn?
- A. Axons send messages out from neurons.
 - B. The cell body of a neuron is irregular in shape.
 - C. Dendrites have many branches.
 - D. Axons are thicker than dendrites.

DIRECTIONS: Read the passage and the question, and choose the **best** answer.

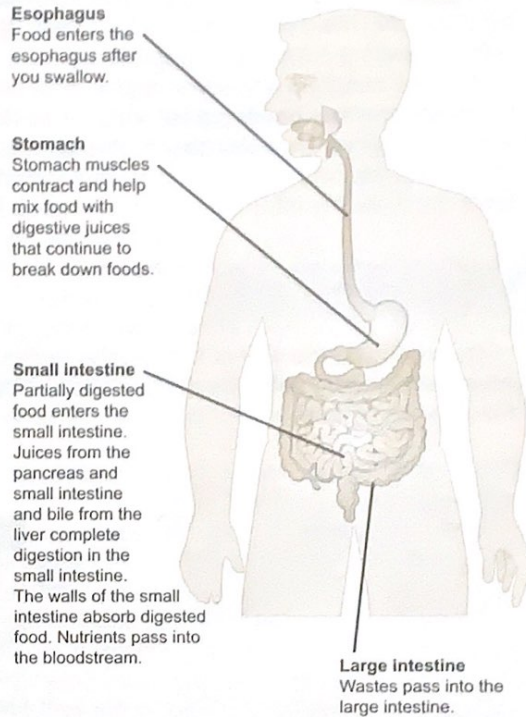
WHAT BONES DO

Bones operate with muscles to move the body. They also safeguard internal organs such as the heart and lungs. Bones store calcium and other minerals for the body to use. Additionally, the marrow inside bones produces blood cells.

3. Which sentence would **best** fit in this passage to state the main idea?
- A. Some bone cells release calcium into the blood.
 - B. Bone can be compact or spongy.
 - C. Bones are reshaped throughout a person's life.
 - D. The skeletal system has numerous functions.

DIRECTIONS: Study the illustration, read each question, and choose the **best** answer.

DIGESTIVE SYSTEM AND DIGESTION



4. Which statement expresses the main idea of the illustration?
- A. Digestion begins even before a person swallows.
 - B. Digestion is mostly complete when the food leaves the small intestine.
 - C. Digestion is a complex process involving several organs.
 - D. Digestion takes place mostly in the stomach.
5. Which detail explains that secretions from organs aid with digestion in the small intestine?
- A. Partially digested food moves from the stomach to the small intestine.
 - B. Pancreatic juice, intestinal juice, and bile complete digestion in the small intestine.
 - C. The walls of the small intestine absorb digested food.
 - D. Nutrients pass from the small intestine into the bloodstream.

3 Apply the Skill

DIRECTIONS: Study the information and table, read each question, and choose the **best** answer.

THE HUMAN BODY AND NUTRIENTS

The human body needs nutrients to carry out complex life processes, such as cell growth and division. Nearly all the nutrients our bodies need come from the foods we ingest. It is important to consume a balanced diet to ensure that your body receives the nutrients it needs to function. Nutrients are organized into classes, and the body needs nutrients from each class. Understanding where different nutrients can be found and how nutrients work in your body can help you make informed decisions about what you eat. The table provides more information about nutrients.

Class	Example Sources	Uses
Carbohydrates	Breads, cereals, pasta, corn, peas, potatoes, sugar, honey, fruit	Provide energy for muscles, nerves, brain
Fats	Salmon, swordfish, nuts, meat, butter, olive oil, corn oil, whole milk	Provide energy; aid in absorption of vitamins; insulate and cushion organs
Proteins	Fish, meat, soy, eggs, milk, yogurt, cheese, beans, lentils, nuts, seeds, grains	Build muscles and immune system; fight infection; repair cells
Vitamins	Eggs, dairy products, vegetables, fruits, nuts, meats	Regulate body processes
Minerals	Dairy products, vegetables, meats, eggs	Build bones, teeth, blood; help the body use energy
Water	Water, juice, fruits, vegetables	Gives cells shape; transports other nutrients; eliminates waste; regulates temperature
Dietary fiber	Beans, peas, oats, apples, wheat bran, nuts, vegetables, fruits	Controls blood sugar; reduces risk of diabetes and heart disease; keeps digestive tract regular

2. Which title **best** conveys the topic of the table?
- Vitamins and Minerals
 - Major Nutrient Classes
 - Healthful Eating
 - Nutrient Uses

3. Based on the table, a lack of which nutrient type would most affect the skeletal system?

- minerals
- proteins
- water
- carbohydrates

4. Based on the table, which action provides a person with nutrients from the greatest number of nutrient classes?

- eating beans
- drinking water
- taking vitamins
- eating vegetables

DIRECTIONS: Study the information and table, read the question, and choose the **best** answer.

BACTERIA: NOT ALWAYS THE BAD GUYS

Because they are linked to illness, we often think of bacteria in negative terms. However, not all bacteria cause disease. Many helpful bacteria are decomposers, which break down and recycle nutrients in the bodies of dead plants and animals. Other helpful bacteria live inside the human body, where they aid digestion and produce vitamins the body needs. Also, bacteria play a role in the production of many popular foods, such as cheeses. Scientists have even discovered how to put bacteria to work to clean up contaminated water and soil.

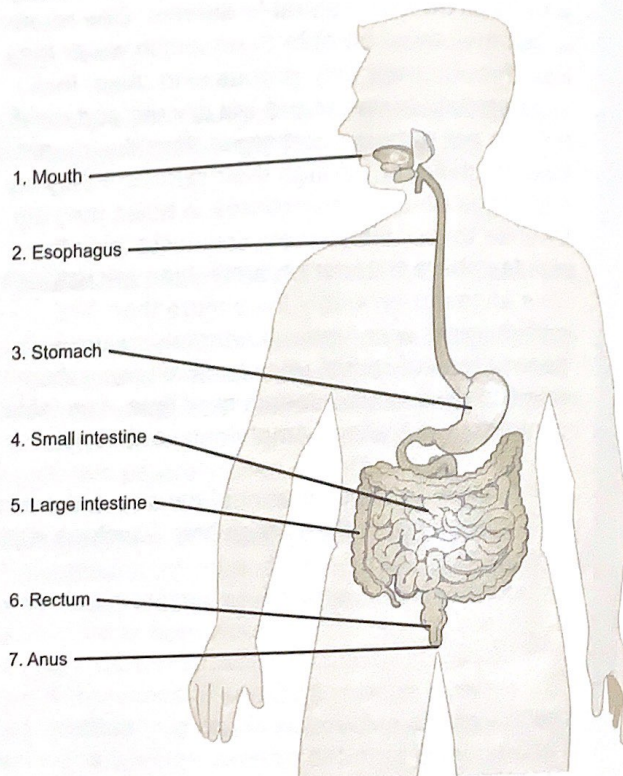
Large Intestine Bacterium	How It Is Helpful
<i>Lactobacillus acidophilus</i>	Crowds out harmful microbes, preventing them from growing
<i>Escherichia coli</i>	Provides vitamin K and some B vitamins
<i>Klebsiella</i>	Benefits people with diets that are too low in protein
<i>Methanobacterium smithii</i>	Digests carbohydrates that cannot be digested by humans

5. Which idea is supported by both the passage and the table?

- Some bacteria that live in the digestive tract of humans are beneficial.
- Bacteria break down and recycle nutrients.
- The production of some foods relies on the help of bacteria.
- Many millions of bacteria live inside the human body.

DIRECTIONS: Study the information and illustration, read each question, and choose the **best** answer.

The digestive system does the important job of extracting nutrients from food to be absorbed into the blood and carried to cells in the body. The process of digestion breaks down food into its smallest parts so that the body can use them for energy. The illustration shows body parts involved in digestion.



4. Based on the information, what must happen before food mixes with digestive juices in the stomach?
 - A. The body must absorb nutrients from the food.
 - B. Waste must accumulate in the large intestine.
 - C. Waste must pass out of the rectum.
 - D. The food must travel through the esophagus.

5. In which part of the digestive system does the absorption of nutrients into the blood occur?
 - A. mouth
 - B. esophagus
 - C. small intestine
 - D. rectum

DIRECTIONS: Read the passage and question, and choose the **best** answer.

In multicellular organisms, cells differentiate during reproduction to produce specialized cells. Specialized cells work together to form tissues. Tissues work together to form organs. Organs work together to form body systems. In this way, levels of organization in a multicellular organism become increasingly complex.

28. Which statement explains how an organ and a body system are similar?

- A. Their organization is less complex than tissues but more complex than cells.
- B. Both are made up of tissues that are made up of cells.
- C. They represent the least complex levels of organization in an organism.
- D. Both are made up of cells that did not differentiate.