

Bones, Muscles, and Skin • Guided Reading and Study

# Body Organization and Homeostasis *(continued)*

## Introduction (p. 438)

- List the levels of organization in the human body, starting with the smallest unit.
  - cells
  - tissues
  - organs
  - organ systems

## Cells (p. 439)

- The basic unit of structure and function in a living thing is a(n) cell.
- Circle the letter of the outside boundary of an animal cell.
  - cytoplasm
  - nucleus
  - tissue
  - cell membrane
- The control center that directs the cell's activities and contains information that determines the cell's form and function is the nucleus.
- What is the cytoplasm?  
Cytoplasm is the jellylike substance in the cell
- Is the following sentence true or false? Cells carry on the processes that keep organisms alive. True

## Tissues (p. 440)

- What is a tissue?  
A tissue is a group of cells that perform the same function.

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8. Complete the table to show the functions and examples of the tissues in the human body.

Tissues in the Human Body		
Tissue	Function	Example (where tissue is found)
Muscle	makes parts of body move by contracting or shortening	bicep, tricep
Nervous	carries messages back and forth between brain	brain spinal cord nerves
Connective	and other parts of body supports and connects <del>the</del> body and its parts	blood fat cartilage bones & tissue tendons
Epithelial	Covers the surfaces of the body - inside and out	skin tissue lining of digestive system

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**Organs and Organ Systems (pp. 440-441)**

9. A structure that is made up of different kinds of tissues is a(n) organ.
10. Circle the letter of the unit of organization that represents an organ.
- a. muscle cell
  - b. blood
  - c. heart
  - d. digestive system

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**Body Organization and Homeostasis** (continued)

11. Is the following sentence true or false? An organ has a specific job that is more complex than that of a tissue. True

12. What is an organ system?

An organ system is a group of organs working together to perform a major function.

Match the organ system with its function.

<u>d</u>	Organ Systems	Functions
<u>f</u>	13. endocrine	a. Takes oxygen into the body
<u>c</u>	14. circulatory	b. Supports and protects the body
<u>a</u>	15. excretory	c. Removes wastes
<u>e</u>	16. respiratory	d. Controls body process by means of chemicals
<u>b</u>	17. digestive	e. Takes food into the body and breaks it down
	18. skeletal	f. Transports materials to and from body cells

**Homeostasis** (pp. 442–443)

19. The process by which an organism's internal environment is kept stable in spite of changes in the external environment is called

homeostasis.

20. How does your body maintain a constant temperature on a hot day?

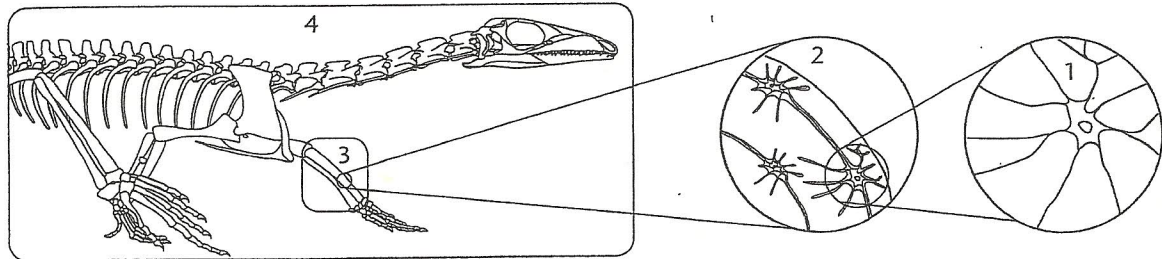
When a person perspires, the liquid evaporates and the skin cools down. The removal of heat helps the body maintain a constant body temperature.

Bones, Muscles, and Skin • Review and Reinforce

# Body Organization and Homeostasis

## Understanding Main Ideas

The illustration below shows the units of organization in a reptile. The units are numbered 1-4. Label the numbered units of organization in the spaces provided.



1. cell
2. tissue
3. organ
4. organ system

## Building Vocabulary

Fill in the blank to complete each statement.

5. The nucleus is the structure in a cell that contains information that determines the cell's characteristics.
6. Muscle tissue makes up organs that are able to contract, or shorten. Nervous tissue makes up the organs that send messages to control the body.
7. The inside of the digestive system is lined with epithelial tissue.
8. The kidney is a(n) organ. The excretory system is a(n) organ system.
9. A(n) cell is the basic unit of structure and function in a living thing.
10. Connective tissue provides support for your body and connects all its parts.
11. The cytoplasm is the area between the cell membrane and the nucleus; it contains a clear, jellylike substance.