

Skills Worksheet

# Directed Reading

## Lesson: Body Organization FROM CELLS TO SYSTEMS

1. A group of cells that look alike and work together to perform a single function is called a(n) \_\_\_\_\_.
2. Two or more tissues that work together to perform a specific function are called a(n) \_\_\_\_\_.

### BODY SYSTEMS WORK TOGETHER

- \_\_\_\_\_ 3. When the body systems work together properly, they keep the body
- a. old and sick.
  - b. alive and healthy.
  - c. run down.
  - d. None of the above

## Lesson: The Nervous System MISSION CONTROL

4. What is the function of your nervous system?

\_\_\_\_\_

\_\_\_\_\_

5. Fill in the part of the nervous system that is missing: brain, spinal cord, nerves, and \_\_\_\_\_.

### YOUR BRAIN

6. Describe what the brain does.

\_\_\_\_\_

\_\_\_\_\_

7. The three parts of the brain are the \_\_\_\_\_, the \_\_\_\_\_, and the \_\_\_\_\_.

### THE CENTRAL NERVOUS SYSTEM

8. The two parts of the central nervous system are the

\_\_\_\_\_ and the \_\_\_\_\_.

**Directed Reading** *continued*

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9. Describe the major functions of the spinal cord.

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**THE PERIPHERAL NERVOUS SYSTEM**

10. A bundle of cells that conducts electrical signals through the body is called a

\_\_\_\_\_.

11. What do nerves do?

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**COMMON PROBLEMS OF THE NERVOUS SYSTEM**

Match the definitions with the correct term. Write the letter in the space provided.

- |  |                          |
|--|--------------------------|
| _____ 12. an injury to the brain caused by a blow to the head  | <b>a.</b> paralysis      |
| _____ 13. a disorder of nerves and brain that is characterized by uncontrollable muscle activity     | <b>b.</b> concussion     |
| _____ 14. condition in which a person has very poor muscle control caused by damage to the brain     | <b>c.</b> epilepsy       |
| _____ 15. loss of the ability to use muscles; generally caused by damage to the brain or spinal cord | <b>d.</b> meningitis     |
| _____ 16. an infection of the protective lining of the brain caused by bacteria or virus             | <b>e.</b> cerebral palsy |

**Lesson: The Endocrine System**

**GROW, FIGHT, OR FLEE**

17. Your endocrine system releases \_\_\_\_\_ to help control certain body functions.

18. Name two functions of the endocrine system.

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## Directed Reading *continued*

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### YOUR GLANDS

- \_\_\_\_\_ 19. What endocrine gland releases a hormone that regulates the amount of sugar in the blood?
- |              |             |
|--------------|-------------|
| a. pituitary | b. adrenal  |
| b. ovary     | d. pancreas |
- \_\_\_\_\_ 20. An endocrine gland that produces hormones involved in male reproduction is the
- |              |             |
|--------------|-------------|
| a. thyroid.  | b. testes.  |
| c. pancreas. | d. ovaries. |
21. A tissue or group of tissues that makes and releases chemicals is called a \_\_\_\_\_.

### YOUR HORMONES

22. Name a hormone that controls the development of secondary sex characteristics in males.
- \_\_\_\_\_

23. Name a hormone that helps you respond to emergencies.
- \_\_\_\_\_

### COMMON PROBLEMS OF THE ENDOCRINE SYSTEM

- \_\_\_\_\_ 24. What endocrine problem can cause the body to slow down and lead to weight gain?
- |                     |                    |
|---------------------|--------------------|
| a. gigantism        | c. hyperthyroidism |
| b. Type II diabetes | d. hypothyroidism  |
- \_\_\_\_\_ 25. What disease is characterized by high levels of sugar in the blood caused by the pancreas producing too little insulin?
- |                     |                    |
|---------------------|--------------------|
| a. gigantism        | c. hyperthyroidism |
| b. Type II diabetes | d. hypothyroidism  |

## Lesson: The Skeletal and Muscular Systems

### YOUR SKELETON: YOUR BODY'S FRAMEWORK

26. The ends of your bones are covered by a soft flexible tissue called \_\_\_\_\_.
27. The tissue inside of a bone is called \_\_\_\_\_.

### JOINTS

28. The place where two bones meet is called a \_\_\_\_\_.

**Directed Reading** *continued*

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**29.** What is the purpose of joints?

\_\_\_\_\_

**COMMON SKELETAL AND JOINT PROBLEMS**

**30.** If bones are moved out of place, your joints can be

\_\_\_\_\_.

**31.** What is arthritis?

\_\_\_\_\_

\_\_\_\_\_

**TYPES OF MUSCLE**

**32.** Give an example of where in the body each of the following types of muscle can be found.

cardiac \_\_\_\_\_

smooth \_\_\_\_\_

skeletal \_\_\_\_\_

**33.** What is a tendon?

\_\_\_\_\_

\_\_\_\_\_

**HOW MUSCLES MAKE YOU MOVE**

\_\_\_\_\_ **34.** When a muscle contracts, it gets

- a.** longer.
- b.** shorter.
- c.** flatter.
- d.** None of the above

**35.** Describe how muscles cause your body to move.

\_\_\_\_\_

\_\_\_\_\_

**COMMON MUSCULAR PROBLEMS**

**36.** What is muscular dystrophy?

\_\_\_\_\_

\_\_\_\_\_

**Directed Reading** *continued*

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**37.** What is tendinitis?

\_\_\_\_\_

**Lesson: The Digestive and Urinary Systems**

**DIGESTION: FROM FOOD TO ENERGY**

**38.** A \_\_\_\_\_ is a substance in food that your body needs to function properly.

**THE JOURNEY OF FOOD**

**39.** What happens to food as you chew?

\_\_\_\_\_

**40.** What two functions happen in the small intestine?

\_\_\_\_\_

\_\_\_\_\_

**41.** What three digestive organs all release chemicals into the small intestine to help digest food?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**HOW THE BODY ABSORBS NUTRIENTS**

**42.** Small projections called \_\_\_\_\_ in the small intestine allow nutrients to pass from the digestive system to the blood.

**43.** How do villi make absorption of nutrients easier for the body?

\_\_\_\_\_

\_\_\_\_\_

**COMMON DIGESTIVE PROBLEMS**

\_\_\_\_\_ **44.** Which of the following does NOT lead to problems with digestion?

- a.** improper chewing of food
- b.** eating slowly and calmly
- c.** too much acid in the stomach
- d.** gulping food when you eat

**Directed Reading** *continued*

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**45.** Describe an ulcer.

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**EXCRETION: REMOVING LIQUID WASTES**

**46.** What three body systems are involved in excretion?

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**47.** The muscular bag-like organ that stores liquid waste is the

\_\_\_\_\_.

**FILTERING BLOOD**

\_\_\_\_\_ **48.** The organ responsible for filtering wastes out of the blood and sending them to the bladder is the

- |                   |                  |
|-------------------|------------------|
| <b>a.</b> heart.  | <b>c.</b> liver. |
| <b>b.</b> kidney. | <b>d.</b> lung.  |

**49.** Microscopic filters inside your kidneys that remove harmful products from your blood are called \_\_\_\_\_.

**COMMON PROBLEMS OF THE URINARY SYSTEM**

**50.** What are stones?

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**Directed Reading** *continued*

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**Lesson: The Circulatory and Respiratory Systems**

**CIRCULATION: ALL ABOARD!**

**51.** Explain the major function of the circulatory system.

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**WHAT IS BLOOD?**

**52.** List the four main components of blood.

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**53.** Explain the functions of the following components of blood:

red blood cells \_\_\_\_\_

white blood cells \_\_\_\_\_

**SUPPLY LINES**

**54.** What is the difference between an artery and a vein?

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**COMMON CIRCULATORY PROBLEMS**

**55.** Abnormally high blood pressure is called \_\_\_\_\_.

**56.** A condition in which the number of red blood cells or hemoglobin is below normal is called \_\_\_\_\_.

**THE RESPIRATORY SYSTEM: WHY YOU BREATHE**

**57.** Describe the function of the respiratory system.

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**Directed Reading** *continued*

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**58.** Your \_\_\_\_\_ are large, spongelike organs in which oxygen and carbon dioxide are passed between the blood and the environment.

**HOW YOU BREATHE**

**59.** What is the diaphragm?

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**COMMON RESPIRATORY PROBLEMS**

**60.** What is pneumonia?

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**Lesson: Caring for Your Body**

**BODY SYSTEMS AND TOTAL HEALTH**

**61.** Explain how your body systems are affected by the health of other systems.

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**STAYING HEALTHY**

**62.** List four tips for staying healthy.

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# Answer Key

## Directed Reading

### LESSON: BODY ORGANIZATION

1. tissue
2. organ
3. b

### LESSON: THE NERVOUS SYSTEM

4. controls your body by conducting electrical messages to and from the various parts of your body
5. sensory organs
6. Your brain tells your body what to do by sending impulses to different parts of the body.
7. cerebrum, cerebellum, brainstem
8. brain and spinal cord
9. The major function of the spinal cord is to relay impulses between the brain and different parts of the body.
10. nerve
11. Nerves serve as a means of communication between the central nervous system and the rest of the body.
12. b
13. c
14. e
15. a
16. d

### LESSON: THE ENDOCRINE SYSTEM

17. hormones
18. Two functions are to tell your body how to grow and develop and to prepare your body to respond to stress and fear.
19. b
20. b
21. gland
22. testosterone
23. epinephrine
24. d
25. b

### LESSON: THE SKELETAL AND MUSCULAR SYSTEMS

26. cartilage
27. marrow
28. joint

29. Joints allow movement when the muscles attached to the bones contract.
30. dislocated
31. Arthritis is inflammation of a joint.
32. heart, stomach, bones
33. Tendons attach muscle to bone.
34. b
35. Muscles pull on the bones that form a joint.
36. Muscular dystrophy is a disease that leads to muscle weakness.
37. Tendinitis is inflammation of a tendon.

### LESSON: THE DIGESTIVE AND URINARY SYSTEMS

38. nutrient
39. Food is mixed with saliva as you chew.
40. chemical digestion, absorption
41. liver, gall bladder, pancreas
42. villi
43. They make absorption easier by increasing the surface area of the intestinal wall.
44. b
45. An ulcer is a round, open sore in the lining of the stomach or small intestine.
46. The three body systems are your skin, your lungs, and your urinary systems
47. bladder
48. b
49. nephrons

### LESSON: THE CIRCULATORY AND RESPIRATORY SYSTEM

50. Stones are crystallized mineral chunks that can form in the kidneys and the bladder.
51. The major function of the circulatory system is to transport nutrients and gases to different parts of the body where they can be used by the cells.
52. plasma, platelets, white blood cells, red blood cells
53. carry oxygen and pick up carbon dioxide; fight infection

54. Arteries carry fresh blood away from the heart and veins carry oxygen-poor blood back to the heart.
55. hypertension
56. anemia
57. The respiratory system brings oxygen into the body and removes carbon dioxide from the body.
58. lungs
59. The diaphragm is a muscular dome below the lungs which causes inhalation and expiration.
60. an infection of the lungs in which the alveoli fill with thick fluid.
61. Body systems are affected by the health of other systems in that if one system fails or malfunctions others can do the same—leading to many different health problems.
62. Answers may vary. Students should choose any four of: eat healthy, drink water, get enough exercise, avoid injuries and accidents, avoid using alcohol, drugs, and tobacco, visit a doctor for yearly checkups.

## Concept Mapping

### LESSON: THE SKELETAL AND MUSCULAR SYSTEMS

The *skeletal system* includes *cartilage* and *bones*, many of which contain *marrow* and are connected by *joints*.

### LESSON: THE CIRCULATORY AND RESPIRATORY SYSTEMS

The circulatory system is made of your *heart*; *blood*, which contains blood cells, *plasma*, and *platelets*; and *blood vessels*, which are called *arteries* and veins, which are linked together by *capillaries*.

## Concept Review

### LESSON: BODY ORGANIZATION

1. cells
2. tissue
3. system
4. organ
5. Answers may vary. Be sure student include both the skeletal and muscular system and the circulatory and respiratory systems.

### LESSON: THE NERVOUS SYSTEM

6. d
7. a
8. A nerve is the bundle of cells that conducts electrical signals through your body. A nerve impulse is the electrical message the nerves send.

### LESSON: THE ENDOCRINE SYSTEM

9. g
10. e
11. c
12. f
13. b
14. a
15. The endocrine system controls your growth by releasing more human growth and sex hormones as you reach puberty.
16. Answers may vary. Sample answers: type 2 diabetes and hyperthyroidism

### LESSON: THE SKELETAL AND MUSCULAR SYSTEMS

17. joint
18. knee, elbow, shoulder, hip
19. c
20. d
21. Smooth muscle contracts to move material such as food through internal organs. Cardiac muscle helps push blood through the body. Skeletal muscle pulls on the bones they are attached to and causes your body to move.
22. d
23. g
24. f
25. i
26. a
27. c
28. h
29. e
30. b
31. The three things to do to prevent injuries are to warm up, cool down, and stretch.

### LESSON: THE DIGESTIVE AND URINARY SYSTEMS

32. c
33. e
34. h
35. a
36. b