

Name:

7th Grade Science Worksheet  
Organ System Interactions

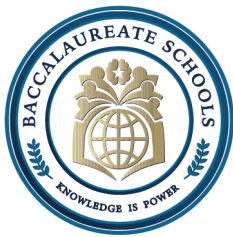
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**Introduction:**

In the human body, organ systems do not work in isolation. They work together to keep the body functioning properly. This is known as organ system interaction. For example, the digestive system works with the circulatory system to transport nutrients throughout the body. In this worksheet, you will learn about how different organ systems work together to maintain homeostasis (balance) in the body.

**Part 1: Fill in the Blanks with the correct answers:**

1. The \_\_\_\_\_ system is responsible for transporting oxygen and nutrients throughout the body, while the \_\_\_\_\_ system helps deliver these nutrients from the digestive system into the bloodstream.
2. The \_\_\_\_\_ system works with the muscular system to move the body. When muscles contract, they rely on signals from the \_\_\_\_\_ system (brain and nerves).
3. The \_\_\_\_\_ system helps protect the body from infection, while the \_\_\_\_\_ system (part of the immune system) helps filter and get rid of waste.
4. The \_\_\_\_\_ system and \_\_\_\_\_ system work together to control body movements by sending signals from the brain to the muscles.
5. The \_\_\_\_\_ system provides structure and support for the body, while the \_\_\_\_\_ system stores calcium and helps protect vital organs.



**Part 2: Multiple Choice : Choose the correct answer for each question.**

- 1. Which of the following is an example of an organ system working together with another system?**
  - A) The digestive system breaks down food while the respiratory system provides oxygen to the blood.
  - B) The heart pumping blood without the help of the circulatory system.
  - C) The skeletal system working independently to provide structure to the body.
  - D) None of the above.
  
- 2. How do the respiratory and circulatory systems work together?**
  - A) The respiratory system brings in oxygen, and the circulatory system transports it to the cells.
  - B) The circulatory system brings in oxygen, and the respiratory system transports it to the cells.
  - C) The respiratory system creates waste, and the circulatory system helps get rid of it.
  - D) The circulatory system and respiratory system do not interact.
  
- 3. Which organ system is directly responsible for producing hormones that help regulate growth, metabolism, and mood?**
  - A) Respiratory System
  - B) Endocrine System
  - C) Digestive System
  - D) Circulatory System
  
- 4. Which two organ systems work together to maintain homeostasis during exercise?**
  - A) Digestive and skeletal systems
  - B) Muscular and nervous systems
  - C) Respiratory and circulatory systems
  - D) Integumentary and excretory system

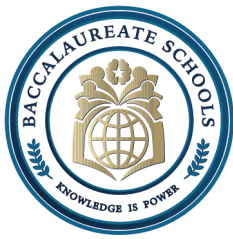
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**Part 3: Answer the following questions in complete sentences.**

- 1. How do the digestive and circulatory systems work together to provide energy for the body?**

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2. What role does the nervous system play in controlling the muscular system?

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3. Explain how the respiratory and circulatory systems interact to supply oxygen to the body's cells.

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**Part 4: Match the organ systems to their functions.**

Organ System	Function
1. Muscular System	A. Transports nutrients, gases, and wastes throughout the body
2. Endocrine System	B. Coordinates and controls body activities
3. Circulatory System	C. Supports and protects the body; produces blood cells
4. Skeletal System	D. Produces and secretes hormones that regulate body processes
5. Nervous System	E. Allows for movement of the body

**Part 5: Answer the following questions based on your understanding of organ systems working together in real life:**

1. During exercise, the body requires more oxygen. How do the respiratory, circulatory, and muscular systems interact to meet this demand?

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2. What happens when one organ system does not function properly? Choose one organ system and explain how it affects other systems.

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