

**Food and Digestion** ▪ *Guided Reading and Study*

## The Digestive Process Begins

*This section explains what the digestive system does and describes the functions of the mouth, the esophagus, and the stomach.*

### Use Target Reading Skills

*Before you read, look at the section headings and visuals to see what the section is about. Then write what you know about the digestive system in the graphic organizer below. As you read, continue to write in what you learn.*

What You Know
1. Food is digested in the stomach.
2.
3.

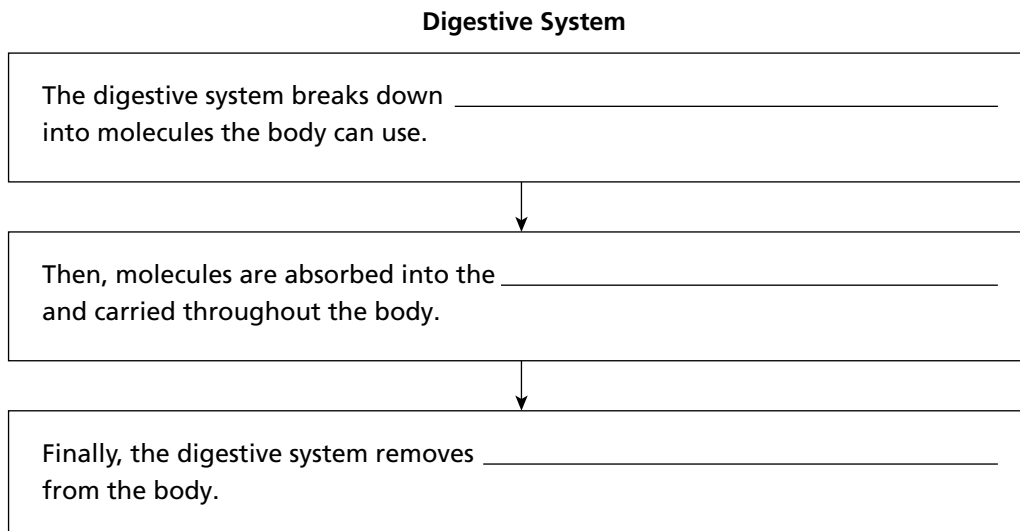
  

What You Learned
1.
2.
3.

**Food and Digestion**

### Functions of the Digestive System

- Complete the flowchart to show the role of the digestive system.



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**The Digestive Process Begins** *(continued)*

2. What is digestion?

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3. Is the following sentence true or false? In chemical digestion, foods are physically broken down into smaller pieces by chewing. \_\_\_\_\_

4. The process by which nutrient molecules pass through the wall of the digestive system and into the blood is called \_\_\_\_\_.

5. What happens to materials that are not absorbed?

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**The Mouth**

6. The fluid released when your mouth waters is called \_\_\_\_\_.

7. Circle the letter of the object that begins the process of mechanical digestion in the mouth.

- a. saliva
- b. teeth
- c. enzymes
- d. mucus

8. What occurs during chemical digestion in the mouth?

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**The Esophagus**

Match each term with its definition.

- Terms**
- \_\_\_ 9. epiglottis
  - \_\_\_ 10. esophagus
  - \_\_\_ 11. mucus
  - \_\_\_ 12. peristalsis

- Definitions**
- a. A thick, slippery substance that makes food easier to swallow
  - b. A flap of tissue that seals off the windpipe, preventing food from entering it
  - c. A muscular tube that connects the mouth to the stomach
  - d. Involuntary waves of muscle contraction that push food through the digestive system

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**The Stomach**

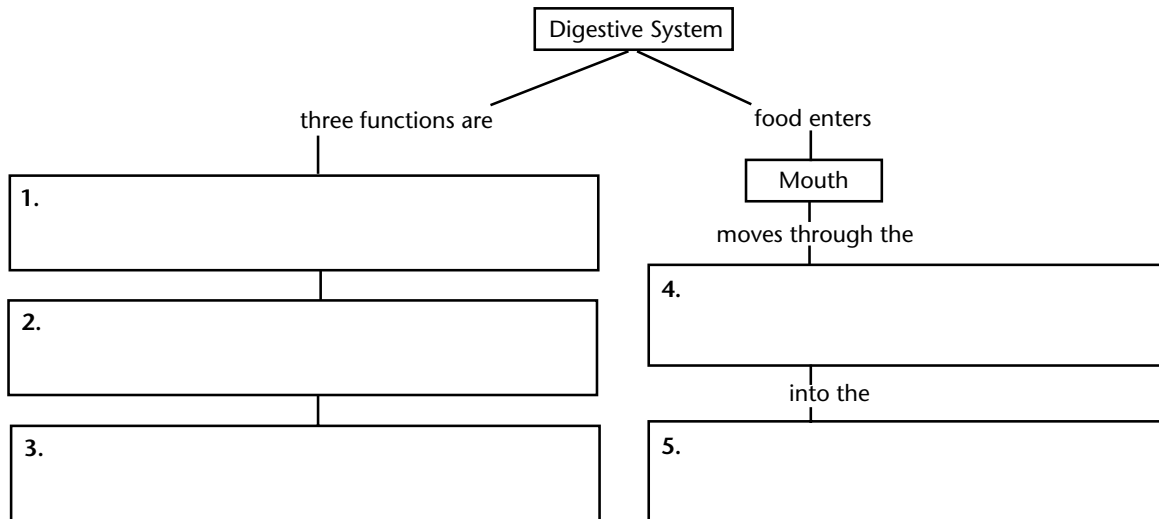
13. Circle the letter of each sentence that is true about the stomach.
- a. The stomach is a J-shaped muscular pouch in the abdomen.
  - b. Mechanical digestion does not occur in the stomach.
  - c. Digestive juice in the stomach contains an enzyme that breaks down proteins.
  - d. Hydrochloric acid in the stomach kills many bacteria that are swallowed with food.
14. Give two reasons why the hydrochloric acid in the digestive juice does not damage the stomach.
- a. \_\_\_\_\_
  - b. \_\_\_\_\_

**Food and Digestion** ▪ *Review and Reinforce*

# The Digestive Process Begins

## Understanding Main Ideas

Fill in the blank rectangles to complete this concept map.



Answer the following in the space provided.

6. Explain the difference between mechanical digestion and chemical digestion.

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## Building Vocabulary

Fill in the space to complete each sentence.

7. When you swallow food, a flap of tissue called the \_\_\_\_\_ seals off your windpipe.
8. \_\_\_\_\_ is a thick, slippery substance that lines the esophagus.
9. The process of \_\_\_\_\_ involves the movement of nutrients through the wall of your digestive system into your blood.
10. Involuntary waves of muscle contractions that keep food moving in one direction through the digestive system are called \_\_\_\_\_.
11. Most mechanical digestion occurs in the \_\_\_\_\_.
12. The \_\_\_\_\_ connects the mouth and the stomach.
13. In your mouth, \_\_\_\_\_ mixes with food to moisten it.
14. The process of breaking down food into small nutrient molecules is called \_\_\_\_\_.
15. A protein that speeds up chemical reactions in the body is a(n) \_\_\_\_\_. Chemical digestion is accomplished by these proteins.

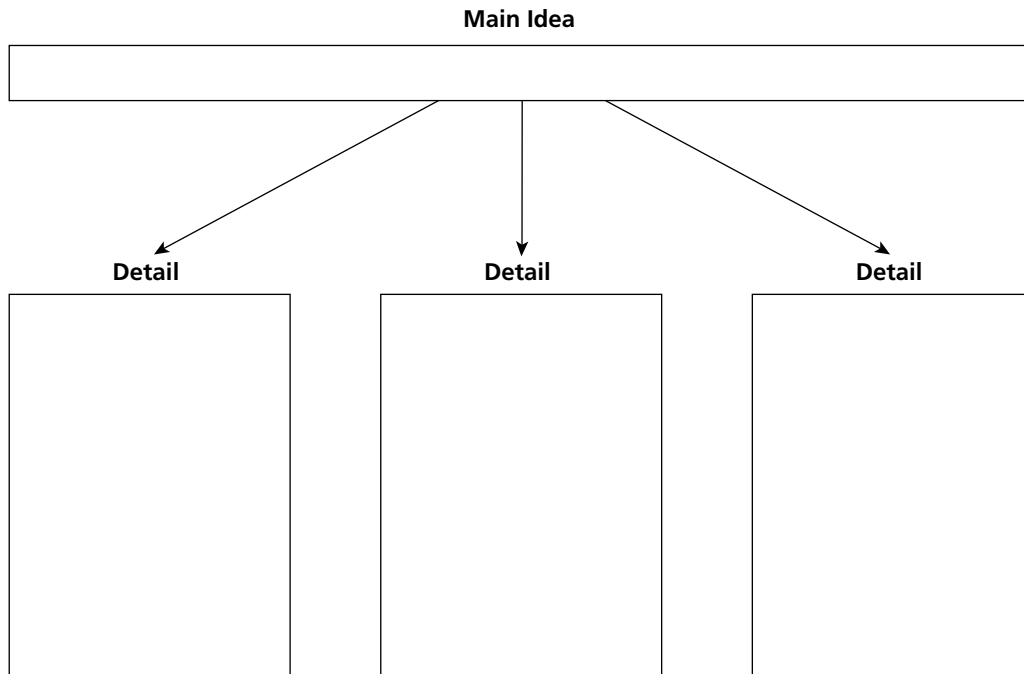
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# Final Digestion and Absorption

*This section describes the roles of the small and large intestines in digestion.*

## Use Target Reading Skills

*As you read The Small Intestine section, write the main idea in the graphic organizer below. Then write three supporting details that further explain the main idea.*



**Food and Digestion**

## The Small Intestine

1. What takes place in the small intestine?  
\_\_\_\_\_  
\_\_\_\_\_
2. List the three organs that produce the enzymes and secretions used in the small intestine.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
3. The largest organ inside the body, which is located in the upper right part of the abdomen, is the \_\_\_\_\_.
4. A substance made by the liver that breaks up fat particles is called \_\_\_\_\_.

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**Final Digestion and Absorption** *(continued)*

5. What is the role of the gallbladder?

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6. Enzymes produced by the pancreas help break down \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

7. The tiny finger-shaped structures that cover the inner surface of the small intestine are called \_\_\_\_\_.

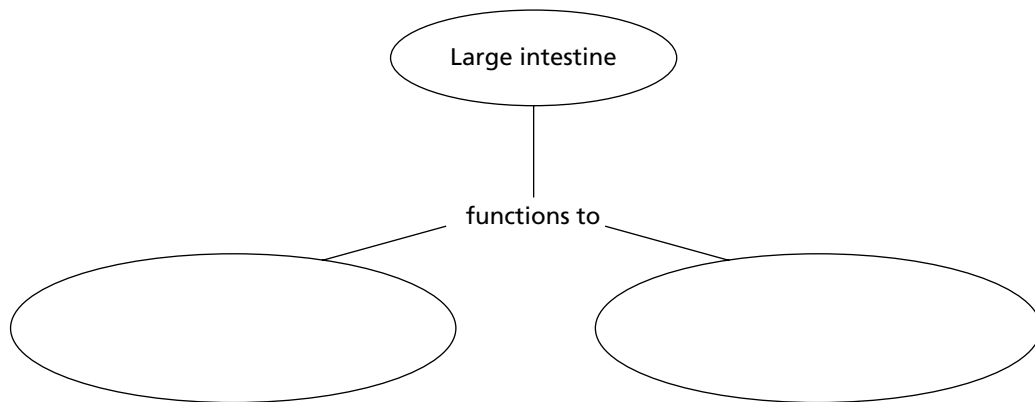
8. Is the following sentence true or false? Nutrient molecules pass from the small intestine into the bloodstream through the villi.

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**The Large Intestine**

9. Is the following sentence true or false? The bacteria in the large intestine feed on the material passing through and make certain vitamins for the body. \_\_\_\_\_

10. Complete the concept map to show the role of the large intestine.



11. The short tube at the end of the large intestine where waste material is compressed is called the \_\_\_\_\_.

12. Circle the letter of the muscular opening through which wastes are removed from the body.

- a. rectum
- b. anus
- c. pancreas
- d. villi

**Food and Digestion** ▪ *Review and Reinforce*

# Final Digestion and Absorption

## Understanding Main Ideas

Place a check mark in the correct column.

Characteristic	Small Intestine	Large Intestine
1. Contains bacteria that feed on material passing through.		
2. Most absorption of nutrients occurs here.		
3. Is lined with villi.		
4. Is directly attached to the stomach.		
5. Prepares wastes for elimination from the body.		
6. Most chemical digestion occurs here.		
7. Receives bile and enzymes from other organs.		
8. Is the last section of the digestive system.		

Answer the following questions on a separate sheet of paper.

9. What happens to the water contained in the materials that pass into the large intestine?
10. What is bile?

## Building Vocabulary

Match each term with its function by writing the letter of the correct function in the right column on the line beside the term in the left column.

- |                     |  |
|---------------------|--|
| ___ 11. liver       | a. stores bile   |
| ___ 12. gallbladder | b. tiny finger-shaped structure in which absorption occurs         |
| ___ 13. pancreas    | c. solid wastes exit the body through this opening                 |
| ___ 14. rectum      | d. produces bile   |
| ___ 15. anus        | e. structure in which waste material is compressed into solid form |
| ___ 16. bile        | f. produces enzymes that flow into the small intestine             |
| ___ 17. villus      | g. breaks up fat molecules   |