Complete the flowchart about the digestion of food. These terms may be used more than once:
esophagus, feces, large intestine, liver, mechanical digestion, mouth, pancreas, pepsin,
stomach.

Food enters the body through the (1) __________________________, where
(2) __________________________ takes place by chewing and digestive
enzymes begin chemical digestion.

Food then moves through the (3) __________________________ by peristalsis.
It passes through the sphincter and into the (4) __________________________.

The muscles in the stomach wall contract to break down the food and mix
it with stomach secretions at about pH 2. These secretions contain
(5) __________________________ for digesting proteins.

In the small intestine, the (6) __________________________ adjusts the
pH to a little above pH 7 and provides digestive enzymes. The
(7) __________________________ produces bile, which is stored in the gall-
bladder until it is needed. Most of the nutrients are absorbed through the villi.

In the (8) __________________________, water is absorbed, and the waste
product becomes solid (9) __________________________, which are eliminated
from the body.
In your textbook, read about the functions of the digestive system.

Use each of the terms below only once to complete the passage.

- chemical
- chyme
- colon
- enzymes
- hormones
- mechanical
- small intestine
- three
- water

The digestive system has (1) ______________ major functions. Digestion can be categorized as either (2) ______________ or (3) ______________.

Most nutrients are absorbed in the (4) ______________. Accessory organs provide bile, (5) ______________, and (6) ______________ to aid digestion.

(7) ______________ is absorbed from (8) ______________ in the (9) ______________.

Label the diagram of the digestive system. Use these choices:

- esophagus
- gallbladder
- large intestine
- liver
- mouth
- pancreas
- salivary glands
- small intestine
- stomach
In your textbook, read about the small and large intestines.

If the statement is true, write True. If the statement is false, replace the italicized term or phrase to make it true.

19. The pancreas produces bile, which helps the body break down fats.

20. The largest internal organ of the body is the liver.

21. The gallbladder produces enzymes, hormones, and an alkaline fluid.

22. Fingerlike structures called villi absorb nutrients from food.

23. The colon is a small organ with no known function that sometimes gets infected.

Complete the table by checking the correct column(s) for each function.

<table>
<thead>
<tr>
<th>Function</th>
<th>Small Intestine</th>
<th>Large Intestine</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. Water is absorbed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Mechanical digestion is completed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Nutrients are absorbed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. Peristalsis happens.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Undigestible material is collected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Bile and pancreatic juices are added.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Chemical digestion is completed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Respond to each statement.

31. **State** the function of the gallbladder.

32. **Name** the part of the digestive system where food spends the most time.
Study Guide  
CHAPTER 35  
Section 2: Nutrition

In your textbook, read about calories and carbohydrates.

In the space at the left, write the letter of the term or phrase that best completes each statement or answers each question.

1. Which of these activities burns more Calories?
   A. jogging  
   B. playing baseball  
   C. sleeping  
   D. walking  

2. Complex carbohydrates, or starches, are found in ____
   A. fruit.  
   B. potatoes.  
   C. soda pop.  
   D. sugar.

In your textbook, read about fats and proteins.

For each answer below, write an appropriate question.

3. Answer: Fats supply concentrated energy, serve as building blocks, protect internal organs, and help maintain homeostasis.
   Question: ____________________________________________________________

4. Answer: because no single plant source contains all eight essential amino acids
   Question: ____________________________________________________________

In your textbook, read about vitamins and minerals.

Complete the table by checking the correct column(s) for each description.

<table>
<thead>
<tr>
<th>Description</th>
<th>Vitamins</th>
<th>Minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Organic compounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Involved with metabolic activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Help build bones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Can be produced by bacteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Essential part of a healthy diet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Inorganic compounds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Study Guide

CHAPTER 35
Section 3: The Endocrine System

In your textbook, read about the action of hormones.

For each statement below, write true or false.

1. Endocrine glands produce hormones.  
2. A hormone is an inorganic compound used as building material in the body.  
3. Estrogen, testosterone, and insulin are examples of steroid hormones.

In your textbook, read about the endocrine glands and their hormones.

Complete the table by filling in the missing information.

<table>
<thead>
<tr>
<th>Gland</th>
<th>Example of a Hormone or Substance That the Gland Secretes</th>
<th>Function of Hormone or Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreas</td>
<td>4.</td>
<td>accelerates the conversion of glucose to glycogen</td>
</tr>
<tr>
<td>Adrenal glands</td>
<td>5.</td>
<td>6.</td>
</tr>
<tr>
<td>Thyroid</td>
<td>thyroxine</td>
<td>7.</td>
</tr>
<tr>
<td>Pituitary gland</td>
<td>8.</td>
<td>9.</td>
</tr>
</tbody>
</table>

In your textbook, read about the link to the nervous system.

Number the steps in the order in which they occur, showing the responses of the endocrine and nervous systems to dehydration.

10. ADH travels in the blood to the kidneys.  
11. ADH bonds to receptors on kidney cells.  
12. The water in urine decreases; the water in the blood increases.  
13. The kidneys reabsorb more water.  
14. The hypothalamus releases ADH.  
15. The water level in the body is low.