

Acids, Bases, and Solutions ▪ *Guided Reading and Study***Digestion and pH**

This section explains why it is necessary for your body to digest food. It also explains how pH affects digestion.

Use Target Reading Skills

As you read about how pH changes as food moves through the digestive system, fill in the flowchart to show the steps in the process.

pH During Digestion

At a pH near 7, enzymes in the a. _____ start to break down carbohydrates.
↓
At a pH near b. _____ stomach enzymes break down c. _____.
↓
d. _____ _____ _____

What Is Digestion?

1. The process that breaks down the complex molecules of foods into smaller molecules is called _____.
2. Why must foods be broken down in your body?

3. Complete the table about the two processes of digestion.

Digestion	
Digestive Process	Description
a. Mechanical digestion	
b. Chemical digestion	

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4. Circle the letter of each sentence that is true about digestive enzymes.
- a. Enzymes require just the right temperature and pH to work.
 - b. The pH must be neutral for all enzymes to work.
 - c. Some enzymes require the pH to be high.
 - d. Some enzymes require the pH to be low.

pH in the Digestive System

5. Is the following sentence true or false? The pH is not the same in all parts of the digestive system. _____
6. What is amylase?
- _____
- _____
7. Amylase works best when the pH is near _____.
8. The stomach begins the chemical digestion of foods containing _____.
9. What occurs in your stomach that drops the pH to a very acidic level of about 2 ?
- _____
- _____
- _____
10. What does pepsin do?
- _____
- _____
11. Why is the pH in the small intestine about 8?
- _____
- _____
- _____
12. Is the following sentence true or false? Enzymes in the small intestine work best in a slightly basic solution. _____
13. Most chemical digestion is completed in the _____.