

The Digestive System

Chapter 11: The Digestive System · Topic 1

Key Concept

Mechanical digestion (chewing, churning) physically breaks food into smaller pieces, while chemical digestion (enzymes) breaks down molecules.

Enzymes, like amylase (breaks down starch) and protease (breaks down proteins), speed up chemical digestion at specific points in the digestive tract.

The small intestine is where most nutrient absorption occurs, with finger-like projections called villi increasing surface area for absorption.

Understanding the digestive system helps us appreciate how our body extracts nutrients from food for energy, growth, and repair.

Quick Revision Notes

- Mechanical digestion physically breaks down food.
- Chemical digestion uses enzymes.
- Amylase breaks down starch.
- Protease breaks down proteins.
- The small intestine absorbs most nutrients.
- Villi are finger-like projections increasing surface area.
- This maximises nutrient absorption.
- The digestive system provides energy for growth and repair.

Practice Questions

- 1 Discuss the difference between mechanical and chemical digestion.
- 2 Research what amylase and protease do.
- 3 Explain the role of villi in the small intestine.
- 4 Draw and label the digestive system.
- 5 Discuss why nutrient absorption is important.
- 6 Explain the path food takes through the digestive system.