

Diet

What is a balanced diet?

Diet

Why does the body need protein?

Diet

Give the importance of fats and oils in the diet.

Diet

Why is iron needed in the diet?

Diet

Why is fibre (roughage) needed?

Diet

What causes scurvy?

Diet

What causes rickets?

Diet

Why is vitamin D needed?

For growth and repair of tissues. Sources include meat, fish, eggs and beans.

A diet that contains all the nutrients in the correct proportions and gives the right amount of energy for the person.

To make haemoglobin in red blood cells. Sources include red meat and green leafy vegetables.

They provide energy, are an energy store and give insulation.

A lack of vitamin C in the diet.

It provides bulk for the gut muscles to push food along and helps prevent constipation.

It helps the body absorb calcium for hard bones and teeth.

A lack of vitamin D (or calcium) in the diet, so bones do not harden properly.

The digestive system

Name the parts of the large intestine.

The digestive system

Name the four associated organs of the digestive system.

The digestive system

Define assimilation.

The digestive system

Define egestion.

The digestive system

Define absorption.

The digestive system

What is physical digestion?

The digestive system

Why does physical digestion help chemical digestion?

The digestive system

What are the functions of incisors, canines, premolars and molars?

Salivary glands, pancreas, liver and gall bladder.

Colon, rectum and anus.

The removal of undigested food from the body as faeces.

Uptake and use of nutrients by cells.

The breakdown of food into smaller pieces without chemical change to the food molecules.

The movement of nutrients from the intestines into the blood.

Incisors bite and cut; canines tear; premolars and molars crush and grind.

It increases the surface area of food for enzymes to act on.

The digestive system

List the parts of a tooth.

The digestive system

How does the stomach carry out physical digestion?

The digestive system

Give two functions of hydrochloric acid in gastric juice.

The digestive system **Supplement**

What does bile do to fats and oils?

The digestive system **Supplement**

Why is it important that bile is alkaline?

Chemical digestion

What is chemical digestion?

Chemical digestion

Why is chemical digestion needed?

Chemical digestion

What does amylase do?

Its muscular walls churn the food and mix it with gastric juice.

Enamel, dentine, pulp (with nerves and blood vessels) and cement. The tooth is embedded in the jawbone and gums.

It emulsifies them into small droplets, increasing the surface area for chemical digestion.

Kills harmful microorganisms in food and provides an acidic pH for optimum enzyme activity.

The breakdown of large insoluble molecules into small soluble molecules.

To neutralise the acidic food and gastric juice entering the duodenum, giving a suitable pH for enzymes.

It breaks down starch to simple reducing sugars.

It produces small soluble molecules that can be absorbed.

Chemical digestion

What do proteases and lipase produce?

Chemical digestion

Where is amylase secreted?

Chemical digestion

Where are protease and lipase secreted?

Chemical digestion **Supplement**

Describe the two steps in the digestion of starch.

Chemical digestion **Supplement**

Compare pepsin and trypsin.

Absorption

Where are nutrients absorbed?

Absorption

Where is water absorbed?

Absorption **Supplement**

Why are villi and microvilli important?

In the salivary glands and the pancreas. It acts in the mouth and the small intestine.

Proteases make amino acids; lipase makes fatty acids and glycerol.

Amylase breaks starch to maltose; maltase on the epithelium membranes breaks maltose to glucose.

Protease: stomach and pancreas. Lipase: pancreas. Protease acts in the stomach and small intestine; lipase acts in the small intestine.

In the small intestine.

Pepsin breaks down protein in the acidic stomach. Trypsin breaks down protein in the alkaline small intestine.

They increase the internal surface area of the small intestine for absorption.

Most from the small intestine; some from the colon.

Absorption **Supplement**

Describe the structure of a villus.

Absorption **Supplement**

What are the roles of capillaries and lacteals in villi?

Capillaries absorb glucose and amino acids into the blood. The lacteal absorbs fatty acids and glycerol.

Finger-like; wall one cell thick with microvilli; contains a network of capillaries and a lacteal.