

Year 8 Knowledge Organiser - Digestion

Vitamins and minerals are needed in small amounts to keep the body healthy. Iron is a mineral important for red blood cells. Calcium is a mineral needed for strong teeth and bones.

Enzymes: Substances that speed up the chemical reactions of digestion.

Dietary fibre: Parts of plants that cannot be digested, which helps the body eliminate waste.

Carbohydrates: The body's main source of energy. There are two types: simple (sugars) and complex (starch).

Lipids (fats and oils): A source of energy. Found in butter, milk, eggs, nuts.

Protein: Nutrient your body uses to build new tissue for growth and repair. Sources are meat, fish, eggs, beans, nuts and seeds.

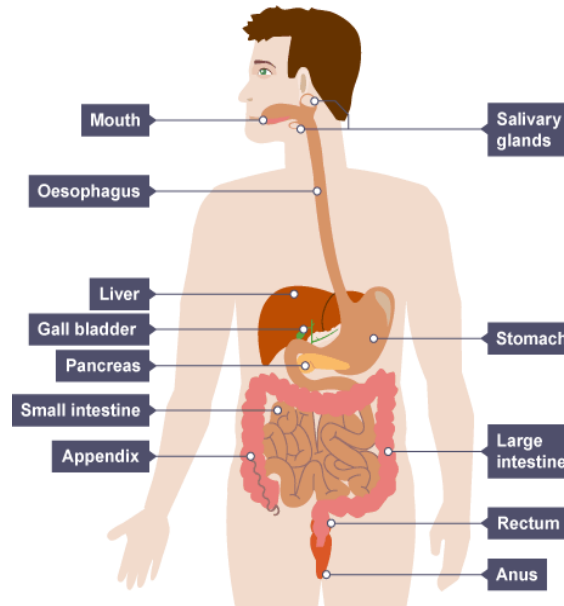
Stomach: A sac where food is mixed with acid and enzymes to start the digestion of protein and kill microorganisms.

Small intestine: Upper part of the intestine where digestion is completed and nutrients are absorbed by the blood.

Large intestine: Lower part of the intestine where water is absorbed and where faeces are formed.

Gut bacteria: Microorganisms that naturally live in the intestine and help food break down.

Organs of the digestive system



Websites that might be useful:

<https://www.bbc.com/bitesize/articles/zmwvgdm>

<https://www.natgeokids.com/uk/discover/science/general-science/digestive-system/>

Extension ideas to research:

- How does temperature and pH affect enzyme activity?
- Design a diet for a person with specific dietary needs.

A healthy diet

The body needs a balanced diet with carbohydrates, lipids, proteins, vitamins, minerals, dietary fibre and water, for its cells' energy, growth and maintenance.



Modelling the digestive system

Organs of the digestive system are adapted to break large food molecules into small ones which can travel in the blood to cells.

Evaluate the experiment that modelled the digestive system. Which part of the digestive system did each stage in the experiment represent?