

Must Remember

- Nutrients and essential substances that your body needs to survive. They are carbohydrates, lipids, proteins, vitamins, minerals, water and fibre.
- Carbohydrates provide energy, lipids provide energy, proteins are used for growth and repair, vitamins and minerals keep you healthy, water is needed in all cells, fibre provides bulk to food to keep it moving through the gut.
- Food tests are used to find out which nutrients a food contains.
- Iodine solution is used to test for starch, the emulsion test is used to test for lipids, Benedict's test is used to identify glucose and simple sugars, copper sulfate and sodium hydroxide are used to test for proteins.
- During digestion large molecules like lipids and proteins are broken down into small molecules. They can pass into the blood where they are used by the body.
- Digestion starts at the mouth where food is chewed and mixed with saliva, food passes down the gullet, in the stomach the food is mixed with digestive juices and acid, digestive juices from the liver are added in the small intestine and small molecules are absorbed into the blood, undigested food passes through the large intestine where water is absorbed into the body, feces are stored in the rectum, feces move out of the body through the anus.
- Enzymes are proteins that can break large molecules into small molecules. They are biological catalysts – they speed up digestion without being used up.

Key Terms

carbohydrate:

nutrient that provides energy

lipids:

Nutrient that provide a store of energy and insulates the body

nutrient:

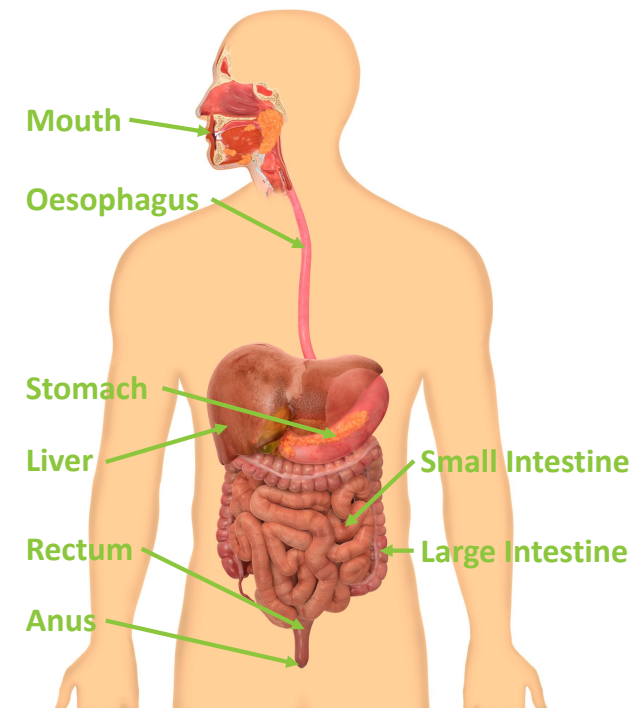
essential substance that your body needs to survive

protein:

nutrient used for growth and repair

Nice to know that...

- Carbohydrates are a main source of energy, lipids also provide energy. Proteins are used for the growth and repair of body tissues.
- Food passes through the digestive system to be broken down into nutrients that can then be used.
- Mouth → oesophagus → stomach → small intestine → large intestine



Maritime Futures – Nutrients in Food

One pot meals are a common meals upon sailing boats as these meals can be prepared easily. It is important that these meals contain all of the nutrients required to remain healthy. Food tests are chemical tests that can be used to identify the nutrients in food. Benedict's reagent is used to identify sugars, the biuret test can be used to identify protein, emulsion test can be used to identify fats, and iodine can be used to identify starch.

Further Study

[BBC Bitesize – Diet](#)