

Definitions and Concepts for WJEC (Wales) Biology GCSE

Topic 1.3: Digestion and the Digestive System in Humans

*Definitions in **bold** are for higher tier only*

Definitions marked by '' are for separate sciences only*

Amino acids - Small molecules that make up a protein.

Benedict's test - A test for reducing sugar.

Benedict's reagent - A reagent used to test for reducing sugars that produces a different colour (from a blue solution to a brick red precipitate) based on the amount of reducing sugar present.

Bile - A liquid secreted by the liver which neutralises stomach acid and emulsifies fats.

Biuret test - A test used to check the presence of peptide bonds. If peptide bonds are present there will be a colour change from blue to violet.

Calorimetry - A technique used to determine the energy content of foods by measuring the heat energy given out during combustion.

Carbohydrase - An type of enzyme that breaks down carbohydrates into simple sugars.

Carbohydrate - A large molecule that is synthesised from simple sugars.

Cardiovascular disease - A non-communicable disease that affects the heart or blood vessels.

Digestion - The process of breaking down biological molecules from food so that they can be absorbed into the body.

Fatty acid - A carboxylic acid that has a long carbon chain. Fatty acids react with glycerol to make lipids.

Fibre - A nutrient needed to maintain a balanced diet which aids movement of food by peristalsis.

Gall bladder - Where bile is stored before it is released.

Glucose - A type of carbohydrate (simple sugar) which is used in respiration to produce energy in the form of ATP.

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Glycogen - A form of glucose which is stored in the body.

Human digestive system - A system that is specialised to break down food molecules for absorption.

Iodine solution - A solution used to test for the presence of starch. A colour change from brown to blue-black indicates a positive result.

Large intestine - The organ where water reabsorption takes place.

Lipase - An enzyme that breaks down lipids into fatty acids and glycerol.

Lipid - A large molecule that is synthesised from three fatty acids and a glycerol molecule.

Liver - The organ which produces bile.

Minerals - Ions needed in small amounts by the body for correct function - for example, iron is needed for haemoglobin.

Pancreas - A small organ behind the stomach which produces digestive enzymes and releases them into the small intestine.

Peristalsis - The process by which food moves through the digestive system due to muscular contractions.

Protease - A type of enzyme that breaks down proteins into amino acids.

Protein - A large molecule synthesised from amino acid monomers.

Small intestine - The organ of the digestive system where digested food is absorbed.

Starch - A carbohydrate which is made up of many glucose molecules bonded together and is used as storage in plants.

Type 2 diabetes - A condition in which a person develops insulin resistance or doesn't produce enough insulin.

Villi - Small projections that line the small intestine which maximise nutrient absorption into the bloodstream.

Vitamins - Molecules needed by the body in small amounts for correct function - for example, vitamin C helps with wound healing.

✚ Definition taken from: [WJEC \(Wales\) GCSE in BIOLOGY Specification V.2 January 2019](#)

