

Keywords/ Definitions	
Keyword	Meaning
digestion	The breakdown of large insoluble food molecules to smaller soluble ones.
digestive system	Organ system involved in breaking food down so that it can be absorbed into the bloodstream.
bile	A substance produced in the liver. It emulsifies fats to prepare them for digestion.
enzyme	A protein which catalyses or speeds up a chemical reaction.
egestion	The process of passing out the remains of food that has not been digested, as faeces, through the anus.
small intestine	The part of the alimentary canal or gut, between the stomach and large intestine, where digestion and absorption happen.
large intestine	The lower part of the alimentary canal (gut) where absorption of water and production of faeces happens.
excretion	Process by which waste products from chemical reactions in an organism are removed.
amylase	An enzyme that can break down starch into simple sugars.
lipase	Enzyme that breaks down lipids (fats and oils).
protease	Enzyme that breaks down proteins.
villi	Finger-like projections in the small intestine that provide a large surface area for the absorption of food.
surface area	The area of the surface of an organism or membrane.

Key Facts
- The body needs a balanced diet with carbohydrates, lipids, proteins, vitamins, minerals, dietary fibre and water, for its cells' energy, growth and maintenance. - 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. - The digestive system is the organ system that breaks food down into small molecules that are absorbed into the bloodstream. - Digestion is helped by enzymes, which are biological catalysts. - The liver produces bile, which helps the digestion of lipids (fats and oil). - The pancreas produces biological catalysts called digestive enzymes which speed up the digestive reactions. - Digestive enzymes cannot break down dietary fibre, which is why the body cannot absorb it. - Deficiencies -if you have too little of a particular nutrient - Iron deficiency can cause anaemia, vitamin D deficiency causes rickets, vitamin C deficiency causes scurvy.

Numeracy – Energy Requirements
Each person needs a different amount of energy depending on factors such as: - age - gender (male or female) - amount of daily activity If you look on the side of food packets you will see the food's energy content. This is usually measured in kilojoules, kJ.



KS3 Bio: Digestion

BIOCHEMICAL (FOOD) TESTS							
CHEMICAL	TESTS FOR ...	HOW TO CARRY OUT THE TEST	RESULT	CHEMICAL	TESTS FOR ...	HOW TO CARRY OUT THE TEST	RESULT
	Starch	1.) Add the iodine solution directly to the substance to be tested (in solid or liquid form) and look for a colour change.	Turns blue black with starch		Protein	1.) Add Benedict's to the solution/ suspension to be tested and look for a colour change.	Turns purple with protein
	Reducing Sugar	1.) Add Benedict's to the solution/ suspension to be tested. 2.) Heat for 2 mins in a water bath or boiling point and look for a colour change.	Turns brick red with reducing sugars (green/ yellow/ orange if less sugar present)		Lipid (known as the Emulsion test)	1.) Add ethanol to the solution/ suspension to be tested and shake thoroughly. 2.) Then add water and look for a colour change.	Turns cloudy/ milky with lipid

