

1. Key Words

1	Kilojoule	A <i>kilojoule</i> (or Calorie) is a unit of energy
2	Diabetes	Diabetes is a lifelong condition that causes a person's blood sugar level to become too high. There are 2 main types of diabetes : type 1 diabetes – where the body's immune system attacks and destroys the cells that produce insulin
3	Digestion	When larger food molecules are broken down into smaller ones so that they can then be absorbed into the blood.
4	Egestion	Egestion is the discharge (getting rid) of undigested material (food), from the digestive system via the anus.
5	Peristalsis	Peristalsis is a series of wave-like muscle contractions that moves food to different processing stations in the digestive system.
6	Enzymes	Biological catalysts- speed up chemical reactions inside the body
7	Villi	Villi (singular is villus) are small, finger-like structures in the small intestine. They help to absorb digested food.





2. Balanced diet

	Food group	Role in the body	Examples of foods
1	Carbohydrate	Energy source	Starchy foods like bread, pasta, potatoes. Or sugary foods like cakes and sweet foods
2	Protein	Growth and Repair (making new cells)	Meats, fish, beans, eggs, nuts
3	Fats	Energy store and insulation	Milk, cheeses, eggs and butter
4	Vitamins	Keeping body healthy	Fruits and vegetables eg Vit C from citrus fruits
5	Minerals	Keeping body healthy	Fruits and vegetables eg Iron from red meat
6	Fibre (Roughage)	Helps food to be fully digested and absorbed.	Cereals, fruits and vegetables
7	Water	Needed for all chemical reactions to occur inside cells	Drinks


4. Command Words

1	Define	State or describe exactly the nature, scope, or meaning of something / establish the character of something; mark out the boundary or limits of something
2	Summarise	Give a brief statement of the main points of something.
3	Suggest	Used with another command word, e.g. Suggest an explanation. Suggest tells you that you need to apply your knowledge to a new situation, and in this case to give a possible explanation
4	Why	Giving a reason or explanation to support the answer of the question.
5	Interpret	Ascribe meaning.
6	Evaluate	Look at the information in the question and bring it together to make a decision and come to a conclusion with evidence from the question. You may be asked to give a personal response.

3. Food tests**1** Starch**2** Protein**3** Sugar**4** Fat (Lipid)

BIOCHEMICAL (FOOD) TESTS							
CHEMICAL	TESTS FOR ...?	HOW TO CARRY OUT THE TEST	RESULT	CHEMICAL	TESTS FOR ...?	HOW TO CARRY OUT THE TEST	RESULT
	1 Starch	1.) Add the iodine solution directly to the substance (in solid or liquid form) and look for a colour change.	Turns blue black with starch		2 Protein	1.) Add Biuret's to the solution/suspension to be tested and look for a colour change.	Turns purple with protein
	3 Reducing Sugar	1.) Add Benedict's to the solution/suspension to be tested. 2.) Heat for 2 mins in a water bath at boiling point and look for a colour change.	Turns brick red with reducing sugars (green/ yellow/ orange if less sugar present)		4 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

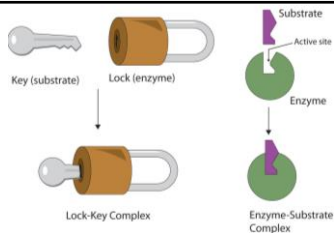
	Recommended amount for boys in KS3	Recommended amount for girls in KS3	100 g of wholemeal bread contain	100 g of oranges contain	100 g of butter contain
energy	9270 kJ	7920 kJ	920 kJ	150 kJ	3000 kJ
carbohydrate	296 g	246 g	38.4 g	8.5 g	0 g
protein	42 g	41 g	10.3 g	0.8 g	0.5 g
fat	86 g	72 g	2.5 g	0 g	81 g
fibre	18 g	15 g	6.5 g	2.1 g	0 g
vitamin A	600 µg	600 µg	0 µg	5 µg	887 µg
vitamin C	35 mg	35 mg	0 mg	50 mg	0 mg
calcium	1000 mg	800 mg	28 mg	41 mg	15 mg
iron	11 mg	15 mg	3 mg	0.3 mg	0.2 mg

 1 mg (milligram) = 0.001 g; 1 µg (microgram) = 0.000001 g.

5. Enzymes

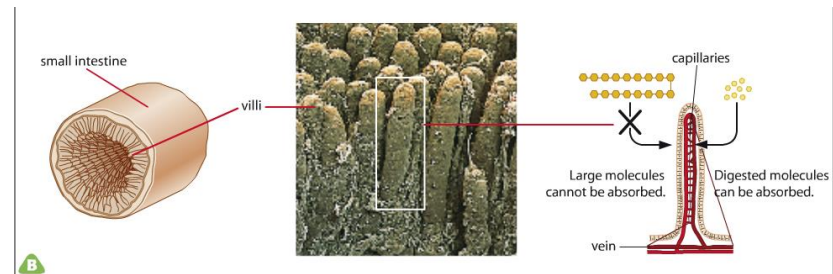
1	Carbohydrase	Breakdown large carbohydrates into soluble sugars eg Starch to glucose
2	Protease	Breakdown proteins into soluble amino acids
3	Lipase	Breakdown fats into fatty acids and glycerol

Enzyme theory:

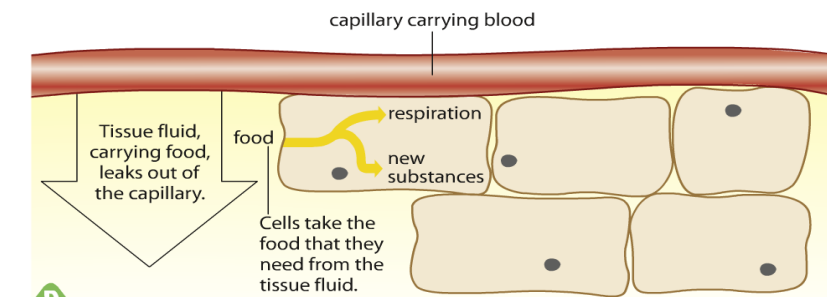


6. Absorption of food in the small intestine

Food absorption- soluble food molecules move from the small intestine villi and are absorbed into the bloodstream.



Absorbed food in blood is carried to all cells that need food molecules for different reasons eg growth; respiration etc



6. Digestive system

1	Putting food into your mouth is called Ingestion
2	In your mouth teeth grind and cut your food into smaller pieces
3	A liquid known as saliva is made to that makes food moist
4	The food is churned up with strong acid pH 1-2
5	Has no real job in humans but can become infected causing a condition known as appendicitis.
6	Takes food from mouth to stomach using muscle to squeeze food downwards
7	6.5 metres long in adults and where most absorption of food into the blood takes place.
8	Undigested food (fibre) ends up here where water is also removed back into the body and solid waste is produced- faeces.
9	Stores faeces before egestion occurs
10	Part of the body where faeces is egested from

