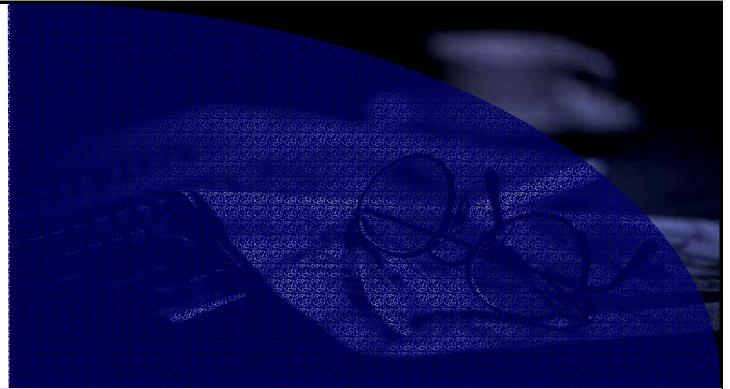


assessment for learning
year 8



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8A Food and digestion

Assessment for learning...year 8 (level 3-6)

Answer all questions:

Total marks	25
Time allowed	25 mins.

Question 1:

The human body has organs and organ systems which have different functions.

(a) (i) In which organ does the foetus develop?

.....

1 mark

(ii) In which organ is oxygen absorbed into the blood?

.....

1 mark

(b) Complete the table.

organ system	function in the human body
circulatory system	
..... system	this system of organs breaks down food and absorbs it into the body

2 marks

(c) Give **one** function of the skeleton.

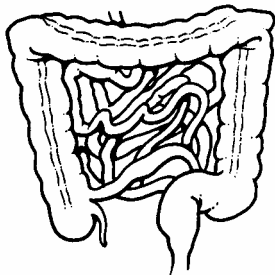
.....
.....

1 mark

Maximum 5 marks

Question 2:

The drawing shows part of an organ system.



(a) Which organ system is it part of?

Tick the correct box.

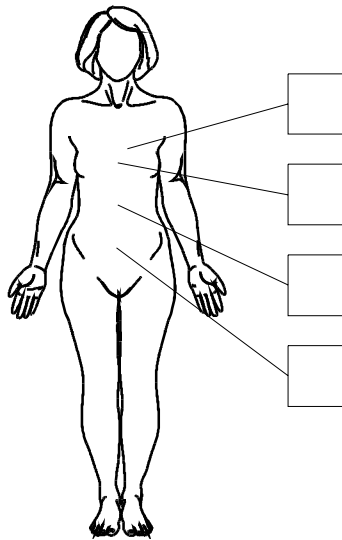
circulatory system reproductive system

digestive system respiratory system

1 mark

(b) Where is this part of the organ system found in the body?

Tick **one** box.



1 mark

Maximum 2 marks

Question 3:

The information below was taken from the label of a can of baked beans in tomato sauce.

nutritional information		list of ingredients
100g provides:		haricot beans, tomato purée, water, sugar, modified starch, salt, paprika, onion powder, herb extracts, spices
energy	406 kJ	
protein	5.4 g	
total carbohydrate	17.6 g	
sugar	6.0 g	
fat	0.4 g	
fibre	3.7 g	

(a) A healthy diet contains a number of groups of substances. The nutritional information lists some of these.

Give **one** group of substances, needed for a healthy diet, which is missing from the nutritional information.

.....

1 mark

(b) (i) Which food, shown in the list of ingredients, provides the most protein in this can?

.....

1 mark

(ii) Give **one** reason why we need protein in our diet.

.....

1 mark

(c) (i) Name **one** food, shown in the list of ingredients, which provides fibre.

.....

1 mark

(ii) Why is fibre needed for a balanced diet?

.....

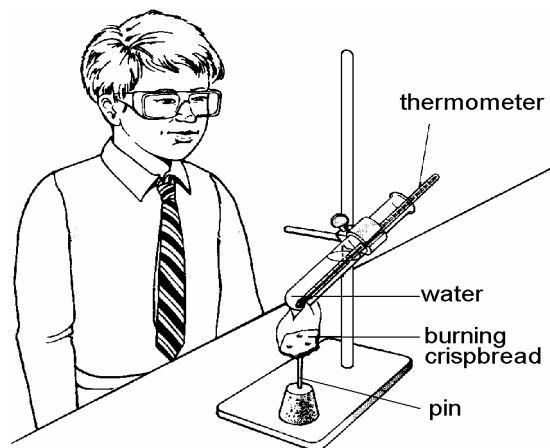
.....

1 mark

Maximum 5 marks

Question 4:

Peter burns a piece of crispbread to find out how much energy is stored in it. Energy from the burning crispbread raises the temperature of the water in the test-tube.



(a) Describe one way Peter has arranged the apparatus so that he is working safely.

.....

.....

2 marks

(b) Peter wants to find out if potato crisps contain as much energy as crispbread. He does the experiment again using a piece of potato crisp.

Suggest **two** things he must do to make the experiment a fair test.

1.
2.

1 mark

The table shows some of the nutritional information from a packet of crispbread and a packet of potato crisps.

	energy in kJ	protein in g	carbohydrate in g	fat in g	fibre in g
100 g of crisp bread	1455	11.6	58.1	7.3	14.7
100 g of potato crisps	2072	5.8	57.9	28.7	4.3

(c) Peter burns 1.0 g of potato crisp instead of 1.0 g of crispbread in a similar experiment. What result will he get when he burns the potato crisp? Tick the correct box.

The change in the temperature of the water will be greater.

The change in the temperature of the water will be the same.

The change in the temperature of the water will be smaller.

There will be no change in the temperature of the water.

1 mark

(d) (i) Fibre contains energy. Explain why this energy can **not** be used by the human body.

.....
.....

1 mark

(ii) Use the table in part (b) to give **two** reasons for choosing crispbread rather than potato crisps as part of a balanced diet.

1.
.....
2.
.....

2 marks

(e) Crispbread does not contain vitamin C. Which of the foods in the list below is the best source of vitamin C?
Tick the correct box.

cheese eggs fish oranges

1 mark

Maximum 8 marks

Question 5:

The table below shows the pH in different parts of the digestive system.

part of digestive system	pH
mouth	6.5 – 7.5
stomach	1.0 – 2.5
small intestine	7.0 – 8.0

(a) Amylase is an enzyme which speeds up the digestion of starch. Amylase is produced by the salivary glands.

Why does amylase stop working in the acidic conditions in the stomach?

.....
.....

1 mark

(b) As food passes from the stomach into the small intestine, a different digestive juice is mixed with the food.

(i) Use the information in the table to suggest what type of substance this digestive juice is.

.....

1 mark

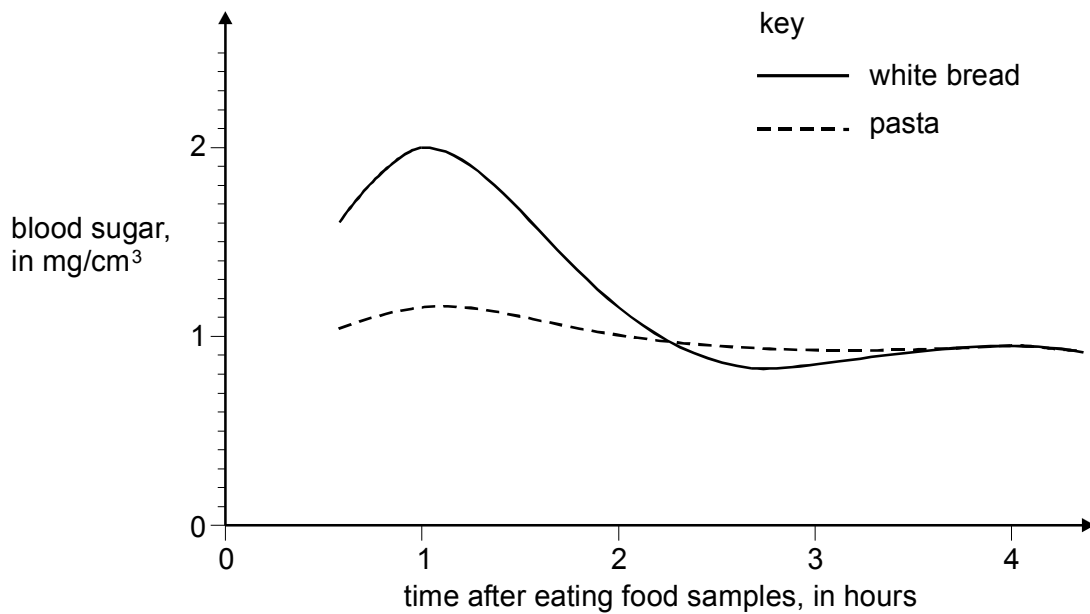
(ii) What type of chemical reaction takes place as this digestive juice mixes with the acid from the stomach?

.....

1 mark

(c) After food containing starch is digested, a person's blood sugar level rises. The body responds by producing a chemical called insulin. Insulin lowers the blood sugar level again.

The graph below shows how a person's blood sugar level changes after eating two different samples of food.



(i) Use the graph to help you to explain why less insulin would be produced one hour after eating pasta than one hour after eating white bread.

.....
.....

1 mark

-

(ii) Suggest the normal blood sugar level in this case.

.....

1 mark

Maximum 5 marks

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