

Key area 6 -The need for transport (animals)homework

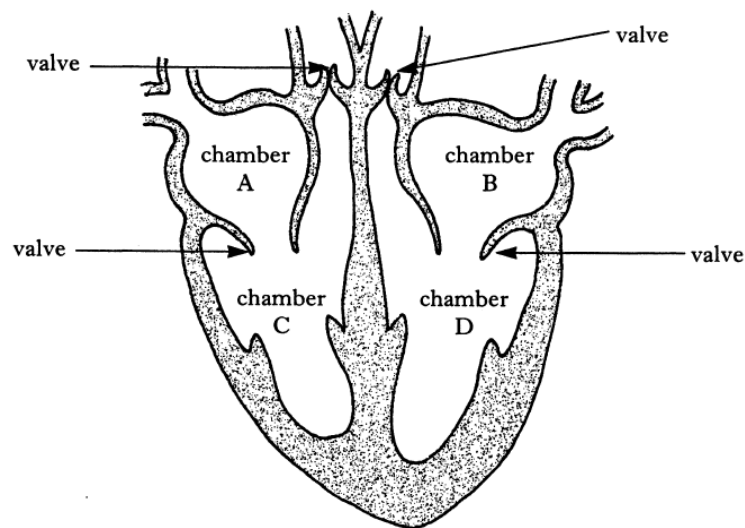
1. a) Oxygen travels around the body in red blood cells. Name the substance found in red blood cells which combines with oxygen.

1

b) Other than oxygen, name one substance which is carried in the blood.

1

2. The diagram below shows the human heart.



a) Name chamber C.

1

b) What is the function of the heart valves?

1

c) Name the blood vessels which supply the heart with oxygen.

1

3. A student carried out an investigation into the relationship between running speed and heart rate.

She used a treadmill to run at a specific speed for 1 minute and measured her heart rate immediately after. She rested for 2 minutes before running at the next speed.

The results of the investigation are shown below.

<i>Running speed (km/hour)</i>	<i>Heart rate (beats per minute)</i>
0	70
2	77
4	82
6	95
8	112
10	143
12	175

a) Why was it good experimental practice to rest for 2 minutes in between each test?

1

b) Draw a line graph to display the student's results.

3

c) Describe the relationship between running speed and heart rate.

1

4. a) Describe the movement of oxygen in the lungs.

2

b) Describe one feature of the alveoli and explain how it allows efficient gas exchange.

Feature _____

1

Explanation _____

1

c) Decide if each of the following statements about the role of cilia and mucus is **True** or **False**, and tick (✓) the appropriate box. If the statement is **False** write the correct word in the **Correction box** to replace the word underlined in the statement.

Statement	True	False	Correction
Mucus is a sticky substance which traps dirt and <u>microorganisms</u> .			
Cilia beat <u>downwards</u> to remove the mucus from the lungs.			

2

5. The villi which line the small intestine each contain a lacteal and blood capillaries.

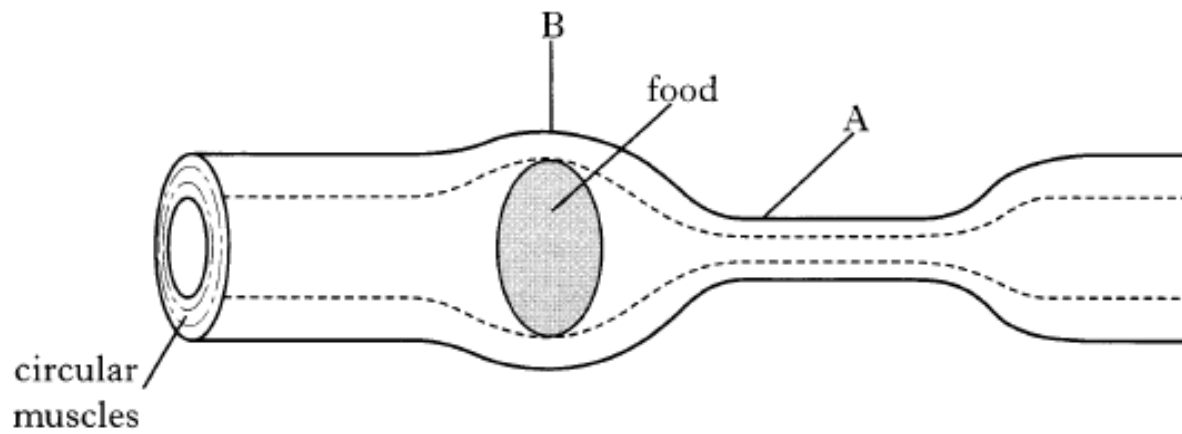
Give a brief description of the function of each of these structures.

Lacteal _____

Blood capillaries _____

2

6. Food is moved along the alimentary canal by the action of circular muscles.



a) What name is given to this movement of food?

1

b) Describe the state of the muscles at positions A and B in the diagram

A _____

B _____

1