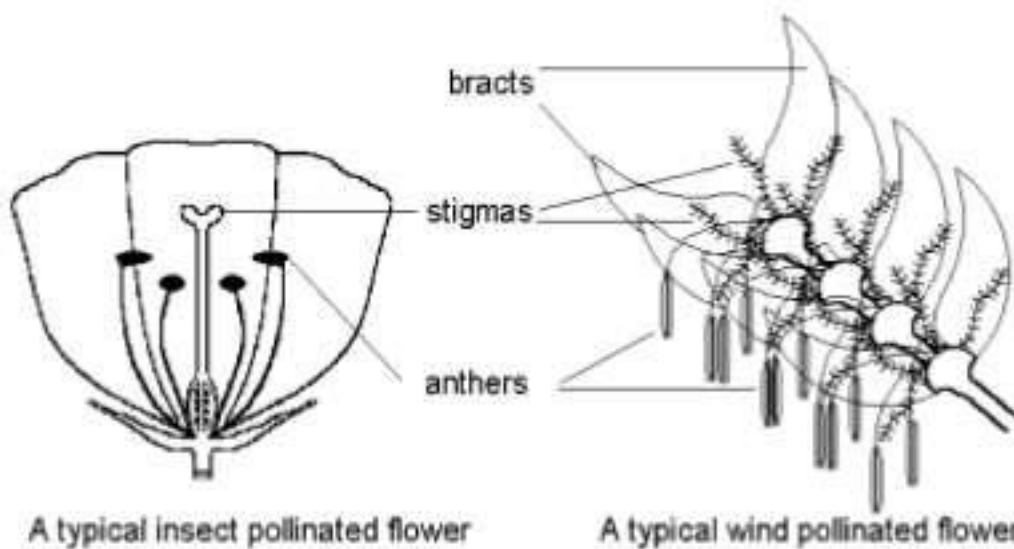


# Task Booklet Year 7 Science

## Humans and Psychology



Student Name: \_\_\_\_\_

Science Teacher: \_\_\_\_\_

**Blood and Circulation**

**Core**

1. Fill in the gaps using the words in the box.

**oxygen   nutrients   grow   excreted   heart   transport   waste**

Blood is the \_\_\_\_\_ system of the body. It carries  
 \_\_\_\_\_ and \_\_\_\_\_ to all parts of the body. It is  
 Pumped around the body by the \_\_\_\_\_. It also takes  
 \_\_\_\_\_ products away from the body cells so that they can be  
 \_\_\_\_\_

**Standard**

2. Complete the table by writing in the function of each type of blood cell.

<i>Type of Cell</i>	<i>Function</i>
Red Blood Cell	
White Blood Cell	
Platelet	

3.  
**Ext**

Draw lines to match the statements on the left with the information on the right.

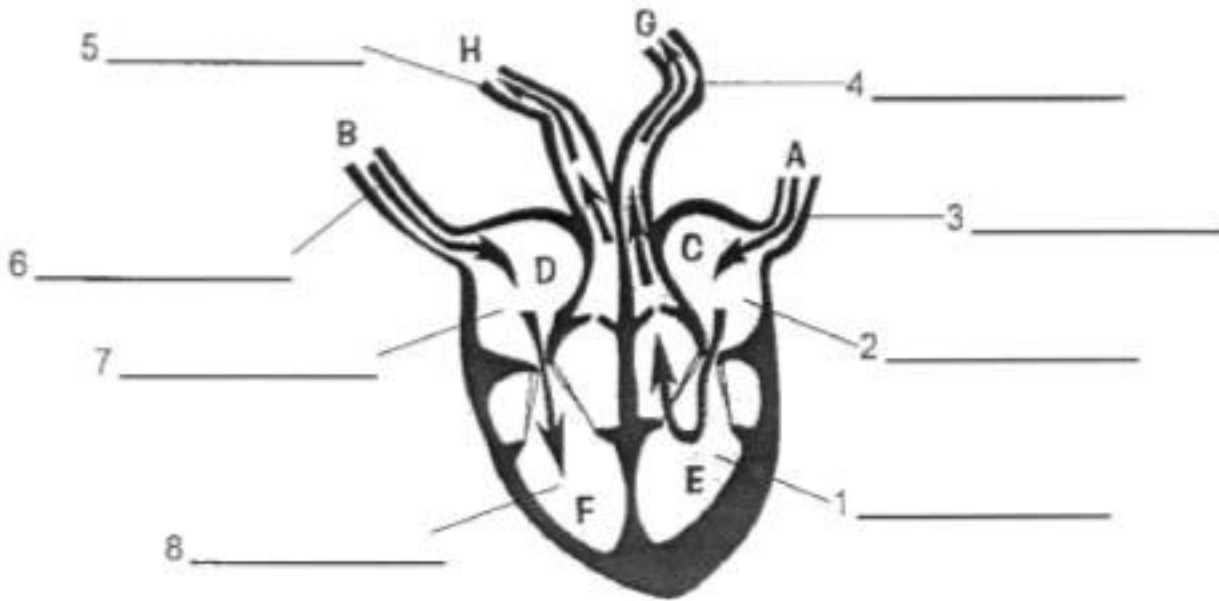
Plasma
Capillaries
Red Blood Cells
White Blood Cells
Antibodies
Platelets
Heart

Fight disease
Produced by a certain type of blood cell
Contain Haemoglobin
Help blood clot and prevent invaders
Narrow blood vessels
Pump that sends blood round the body
Liquid part of the blood

The Heart

Core

- Complete the labels on the heart diagram below.



- Starting at B, put the letters in order to show the complete flow of blood into and out of the heart.

**B**

\_\_\_\_\_

\_\_\_\_\_

- Colour the side of the heart that contains oxygenated blood red, and the side that contains deoxygenated blood blue.
- Why are valves needed in the heart?

\_\_\_\_\_

- Which blood vessels carry blood AWAY from the heart?

\_\_\_\_\_

- Some people are born with a 'hole in the heart' that lets blood flow from the right side of the heart to the left side of the heart without going through the lungs. This means that less oxygenated blood is pumped round the body. What effect might this have on a person?

\_\_\_\_\_

\_\_\_\_\_

**Digestion Models**

**Core**

1. Vanessa and Imran carried out an investigation to see how an enzyme affects the digestion of starch. The results are shown in the table.

If starch was present the Iodine went blue. If not, it stayed brown.

BL = Blue  
BR = Brown

		<b>Time (mins)</b>						
		<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>
<b>Temperature (°C)</b>	<b>20</b>	BL	BL	BL	BL	BR	BR	BR
	<b>35</b>	BL	BL	BR	BR	BR	BR	BR

- (a) Why did the mixture stop turning the Iodine blue?

\_\_\_\_\_

- (b) Which temperature did the enzyme work best at?

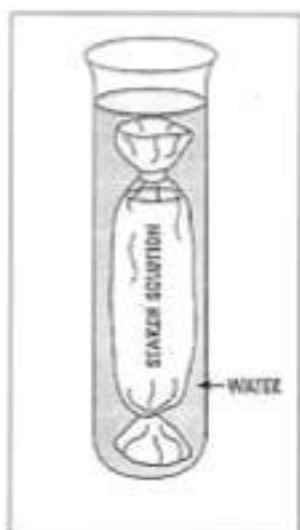
\_\_\_\_\_

- (c) Why do you think it works best at this temperature?

\_\_\_\_\_

**Standard**

2. The diagram shows an experiment to see how the human gut works. Starch solution is placed inside the Visking tubing bag and after 20 minutes the water around the tubing is tested for starch.



- (a) What chemical would you use to test for starch?

\_\_\_\_\_

- (b) Would starch be present in the water?  
Explain your answer.

(c) The water was also tested for glucose. What chemical would you use to test for glucose?

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(d) Would you expect the water to contain any glucose? Explain your answer.

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3. In a similar experiment the enzyme amylase was added to the starch solution in the Visking tubing.

Would glucose be present in the water surrounding this tube after 20 minutes? Explain your answer.

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**Standard / Extension**

**Reproduction in Humans**

Describe the journey of a sperm from where it is made in the testis all the way to the egg inside the female. You must include the names of all of the structures that the sperm passes through on its journey.

Write this as a series of bullet points. The first one has been done for you as an example.

- Sperm are produced in the testes. When the man ejaculates they pass from the testes in the sperm tube.

Core

The Placenta

1. Label the diagram of the foetus in the uterus using the words.

**Placenta** - makes hormones that control the pregnancy

**Blood Vessels** - carry materials between the mother and the foetus

**Umbilical Cord** - connects the foetus to the placenta

**Sac** - fluid filled bag in which the foetus develops



Standard

2. Copy the words in the box into the correct side of the table.

**Food Drugs Oxygen Carbon dioxide Urea / other wastes antibodies**

<i>Materials carried to foetus by placenta</i>	<i>Materials carried away from foetus by placenta</i>