

Nova's Human Body Investigation

Learning objective: To identify and name the main parts of the human circulatory system and explain the functions of the heart, blood vessels, and blood.

Read each question carefully and use your knowledge of the human body to provide detailed answers. Remember to use scientific terminology where appropriate.

Word bank: Heart · Blood vessels · Oxygen · Carbon dioxide · Nutrients · Arteries · Veins · Capillaries · Circulation · Lungs

1. Nova wants to know what the primary function of the heart is. Explain how the heart acts as a pump within the circulatory system. (2 marks)

2. Describe the difference between arteries and veins. Which one carries blood away from the heart, and which one carries blood back towards it? (2 marks)

3. Blood is responsible for transporting vital substances around the body. Name two substances that blood carries to the cells and one waste product it carries away. (3 marks)

4. Why is it important for blood to pass through the lungs during its journey around the body? (2 marks)

5. Max has been exercising and notices his heart rate has increased. Explain why the body requires faster blood circulation during physical activity. (2 marks)

Draw: Draw a simple diagram of the circulatory system. Include the heart and show the path of blood flowing to the lungs and to the rest of the body. Use arrows to show the direction of blood flow.



Extension challenge: Research what happens to our circulatory system when we go to high altitudes, where the air has less oxygen. Write a short paragraph explaining how the body might adapt.