

Nova's Guide to the Human Circulatory System

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

Read the following passage carefully, then answer the questions below to test your understanding of how the human circulatory system works.

Nova the barn owl loves to swoop over the school playground, observing how active the children are. She knows that to keep running and playing, their bodies rely on a brilliant internal delivery network: the circulatory system. At the centre of this system is the heart, a powerful muscle that acts like a double-sided pump. It works tirelessly to push blood through a complex web of tubes called blood vessels.

As blood travels, it carries vital oxygen and nutrients to every single cell in the body. Nova explains that these cells need oxygen to create the energy required for a busy day of learning. Once the blood delivers its cargo, it picks up waste products, such as carbon dioxide, and transports them away to be removed. Arteries carry oxygen-rich blood away from the heart, while veins bring the blood back to be refreshed. This constant cycle ensures that every part of the human body receives exactly what it needs to function correctly. Without this remarkable, non-stop delivery service, we would not be able to grow, move, or think.

Word bank: circulatory · heart · oxygen · nutrients · vessels · arteries · veins · carbon dioxide

1. According to the text, what are the two main things that blood delivers to cells? (2 marks)

2. What is the specific difference between the roles of arteries and veins? (2 marks)

3. Why does Nova describe the heart as a 'double-sided pump'? (2 marks)

4. Based on the text, what might happen to a person's body if the circulatory system stopped working correctly? (2 marks)

5. Nova says the circulatory system is a 'brilliant delivery network'. Do you agree with this comparison? Explain your reasoning using evidence from the text. (3 marks)

Draw: Draw a diagram of the human circulatory system showing the heart in the centre, with arrows indicating the direction of blood flow through the body.



Extension challenge: Research how the heart rate changes during exercise and write a short paragraph explaining why the heart needs to pump faster when you are running compared to when you are resting.