The Circulatory System with Nova the Owl

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 each question carefully and use your knowledge of the human body to provide clear, scientific explanations. Use the word bank to help you with your spelling.

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

1. Nova the Owl is curious about the heart. Describe the main job of the heart within the circulatory system. (2 marks)

2. Explain the difference in function between arteries and veins. Why is this difference important for the body? (3 marks)

3. Blood travels around the body carrying essential substances. Name two things that blood carries to the cells and one waste product it carries away. (3 marks)

4. Why are capillaries so thin? Explain how their structure helps them perform their function. (2 marks)

5. If you were to exercise, your heart rate increases. Why does the body need the heart to beat faster during physical activity? (2 marks)

Draw: Draw a simple, labelled diagram of the human circulatory system. Include the heart in the centre, and use red arrows to show oxygenated blood leaving the heart and blue arrows to show blood returning to the heart.

Extension challenge: Nova the Owl wants to know what happens to our circulation when we are resting compared to when we are running a race. Write a short paragraph explaining the relationship between physical activity and heart rate.