

Worksheet: The Pathway of Blood (Grade 10)

Instructions: Fill in the blanks, answer the short answer questions, and label the diagram.

Part 1: The Blood Circuit (10 points)

1. Blood travels in a continuous loop throughout the body. This loop consists of two main circuits: the _____ circuit and the _____ circuit. (2 points)
2. The **systemic circulation** carries oxygenated blood from the _____ to the rest of the body and returns deoxygenated blood back to the _____. (3 points)
3. The **pulmonary circulation** carries deoxygenated blood from the _____ to the lungs for gas exchange and returns oxygenated blood back to the _____. (3 points)

Part 2: Short Answer (10 points)

1. Briefly explain the role of valves in the heart. (2 points)

2. What happens to the blood in the lungs during gas exchange? (2 points)

3. Describe the difference between oxygenated and deoxygenated blood. (3 points)

4. Why is the continuous circulation of blood essential for human health? (3 points)
