

What is the circulatory system and how does it work?

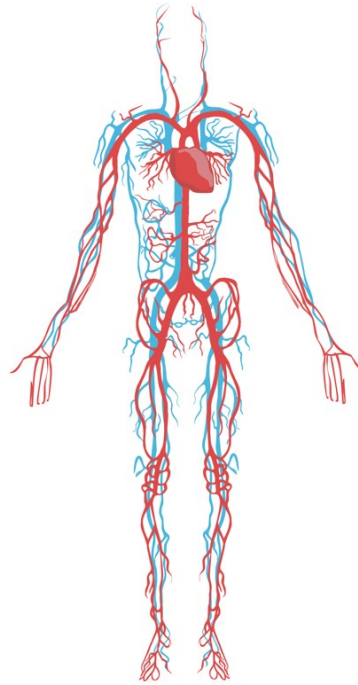
Working Scientifically: Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results.

Key vocabulary

circulatory system
heart
blood vessel
vein
artery
capillary
red blood cells
white blood cells

nutrients
plasma
oxygen
oxygenated
deoxygenated
lungs
atrium
ventricle
dissection

Label the 3 main parts of the circulatory system



Must-know knowledge

Blood transports nutrients and oxygen to all parts of the body, and takes waste, such as carbon dioxide, away.

Nutrients are carried in the plasma to provide the nourishment cells need to repair themselves and grow.

Oxygen is carried in red blood cells from the lungs to all cells in our body. White blood cells help to fight bacteria and viruses in our body to prevent illness.

The heart pumps blood around the body and is part of the circulatory system, which is split into four chambers. It has two atria and two ventricles.

Veins carry blood towards the heart. Blood flows through the heart as part of its journey through the circulatory system.

Blood flows through the right atrium, then out of the right ventricle to the lungs. Blood from the lungs then flows into the left atrium and out of the left ventricle towards the rest of the body.

Valves stop the blood flowing in the wrong direction.

The left ventricle is thicker than the right ventricle because moving blood around the whole body requires more force than moving blood to the lungs.

Label the heart

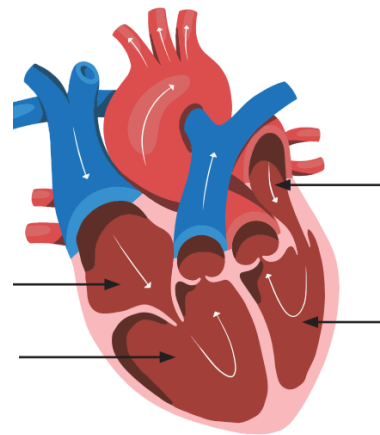
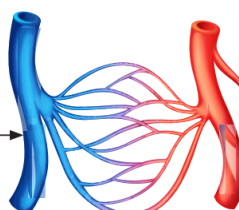


Diagram: Blood Vessels

veins – blood vessels that carry blood towards the heart



capillaries – blood vessels that connect veins and arteries

arteries – blood vessels that carry blood away from the heart

Key Questions:

What is the function of the circulatory system?

What are the three main parts of the circulatory system?

What is the function of the heart?

What is the difference between the 3 different types of blood vessel?

Why is it important that blood moves in 1 direction?