



Year 6 Science Knowledge Organiser: Circulatory System



Key vocabulary

arteries	tubes in your body that carry oxygenated blood from your heart to the rest of your body.
atrium	the part of the heart that receives blood from the veins.
blood vessels	narrow tubes that your blood flows through.
carbon dioxide	a gas produced by animals and people breathing out.
circulatory system	the system responsible for circulating blood through the body, that supplies nutrients and oxygen to the body and removes waste products such as carbon dioxide .
deoxygenated heart	blood that does not contain oxygen .
lungs	the organ in your body that pumps blood around the body .
nutrients	two organs in your chest which fill with air when you breathe in. They oxygenate the blood and remove carbon dioxide from it.
organ	substances that help animals and plants grow.
oxygen	a part of the body that has a particular purpose and performs specific functions.
oxygenated	a colourless gas that plants and animals need to survive.
pulse	blood that contains oxygen .
respiration	the regular beating of blood through your body. How fast or slow your pulse rate is depends on how active you are.
veins	inhaling oxygen -rich air and exhaling air filled with carbon dioxide .
ventricle	a tube in your body that carries deoxygenated blood to your heart from the rest of your body.
	the part of the heart from which blood passes into the arteries.

Focus scientists

Barbara Casadei (1959-present day) is a researcher helping The **British Heart Foundation** find cures for cardiovascular conditions.

William Harvey (1578-1657) was the doctor who discovered the nature of blood circulation and the function of the heart as a pump)



Key Knowledge

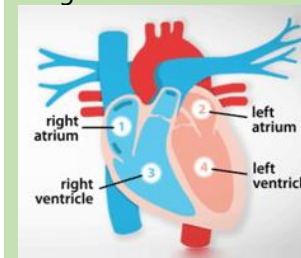
What is the circulatory system? The **circulatory system** is made up of the **heart**, **lungs** and **blood vessels**.

Arteries carry **oxygenated blood** from the heart to the rest of the body.

Veins carry **deoxygenated blood** from the body to the heart.

Nutrients, **oxygen** and **carbon dioxide** are exchanged via the **capillaries**.

Diagram of the heart



The **heart** is composed of four chambers; the right **atrium**, the right **ventricle**, the **left atrium** and **left ventricle**. The rate that your heart pumps is called your **pulse**.

Deoxygenated
Oxygenated

The function of the heart

Deoxygenated blood flows into the **heart** from the body through the **veins**.

This blood is pumped out of the lungs through the **pulmonary artery**.

Blood is then the **oxygenated** in lungs.

Blood returns to the heart through the **pulmonary artery**.

The **oxygenated blood** is then pumped out of the heart through the **aorta**.

The blood travels around the body delivering

Healthy diet and life style

Things that can harm the circulatory system	<ul style="list-style-type: none">•Smoking and drinking alcohol can be harmful to our health.•Tobacco can cause short-term effects such as shortness of breath and loss of taste and long term effects such as lung disease and cancer.•Alcohol can cause short term effects such as addiction and long term effects such as organ damage and cancer.
Things that can maintain a healthy circulatory system	<p>Exercise helps to improve health by:</p> <ul style="list-style-type: none">•Removing fatty deposits from the body.•Toning muscles and reducing fat.•Increasing fitness (ability to do high intensity activities for longer).