

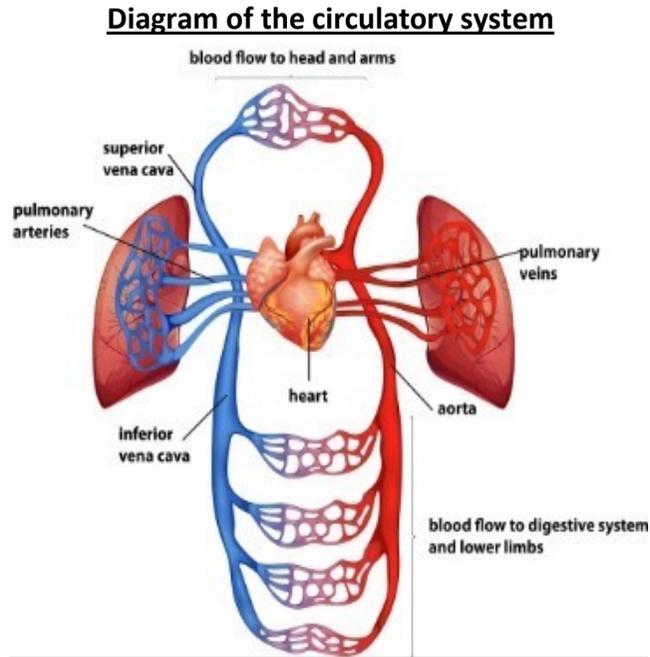
Year 5 & 6 Knowledge Organiser – Animals / Health – Exercise, Health and the Circulatory System

Heros & Villans

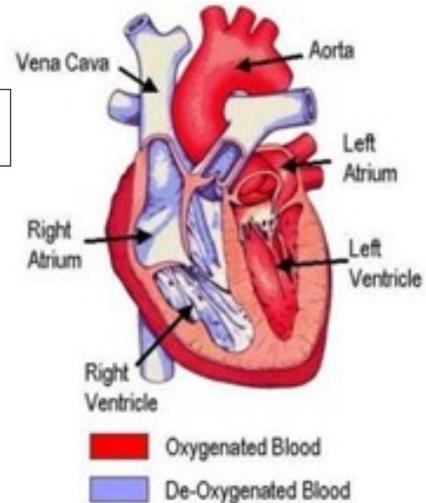
What should I already know?

- Which things are living and which are not.
- Classification of animals (e.g. amphibians, reptiles, birds, fish, mammals, invertebrates)
- Animals that are carnivores, herbivores and omnivores. Animals have offspring which grow into adults.
- The basic needs of animals for survival (water, food, air)
- The importance of exercise, hygiene and a balanced diet.
- Animals get nutrition from what they eat.
- Some animals have skeletons for support, protection and movement.
- The basic parts of the digestive system.
- The different types of teeth in humans.
- Respiration is one of the seven life processes.
- The life cycle of a human and how we change as we grow.

Diagrams



The Heart



What will I know by the end of the unit?

- Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
- Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
- Describe the ways in which nutrients and water are transported within animals, including humans.
- The heart is a major organ and is made of muscle.
- The heart pumps blood around the body through vessels and this can be felt as a pulse.
- The heart pumps blood through the lungs in order to obtain a supply of oxygen.
- Blood carries oxygen/essential materials to different parts of the body.
- During exercise muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase.
- An adequate, varied and balanced diet is needed to help us grow and repair our bodies (proteins), provide us with energy (fats and carbohydrates) and maintain good health (vitamins and minerals).

Tobacco, alcohol and other 'drugs' can be harmful.
All medicines are drugs, not all drugs are medicines.

Choices that can harm the circulatory system

- Some choices, such as smoking and drinking alcohol can be harmful to our health.
- Tobacco can cause short-term effects such as shortness of breath, difficulty sleeping and loss of taste and long-term effects such as lung disease, cancer and death
- Alcohol can cause short-term effects such as addiction and loss of control and long-term effects such as **organ** damage, cancer and death

Key vocabulary

aorta	the main artery through which blood leaves your heart before it flows through
arteries	a tube in your body that carries oxygenated blood from your heart to the rest of your body
atrium	one of the chambers in the heart
blood vessels	the narrow tubes through which your blood flows. Arteries, veins and capillaries are blood vessels.

Year 5 & 6 Knowledge Organiser –

Key vocabulary

capillaries	tiny blood vessels in your body
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	blood that does not contain oxygen
heart	the organ in your chest that pumps the blood around your body
lungs	two organs inside your chest which fill with air when you breathe in. They oxygenate the blood and remove carbon dioxide from it.
oxygenated	blood that contains oxygen
pulse	the regular beating of blood through your body. How fast or slow your pulse is depends on the activity you are doing.
veins	a tube in your body that carries deoxygenated blood to your heart from the rest of your body

Diagrams

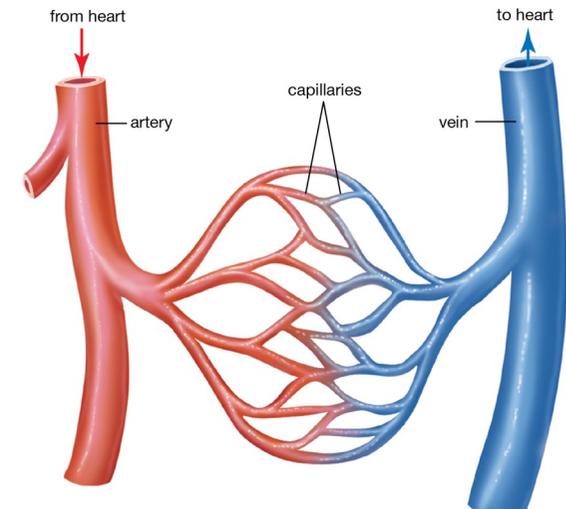
What is the circulatory system?

The **circulatory system** is made of the **heart**, **lungs** and the **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**.



Why is exercise so important?

Exercise can:

- tone our muscles and reduce fat
- increase fitness
- make you feel physically and mentally healthier
- strengthens the **heart**
- improves **lung** function
- improves skin

Topic- Animals / Health – Exercise, Health and the Circulatory System
Heros & Villans

Question 1 - The heart, blood vessels and lungs make up the...	Start of unit	End of unit	Question 5 - You are investigating which exercise yields the highest heart rate. How can you ensure a fair test?	Start of unit	End of unit
A. digestive system			A. treat everybody the same		
B. circulatory system			B. measure the same subject's pulse before, during and		
C. skeletal system			C. ensure the starting heart rate is the same before each		
D. muscular system			D. complete each exercise without resting in between.		
Question 2 - Which one of these is not an organ?	Start of unit	End of unit	Question 7 - The veins carry _____ blood.	Start of unit	End of
A. Heart			A. deoxygenated		
B. Lungs			B. oxygenated		
C. Blood			C. blue		
D. Liver			D. red		
Question 3 - The most effective way to show the change in pulse rate over time is by using a...	Start of unit	End of unit	Question 8 - The function of the blood is to provide the body with...(tick three)	Start of unit	End of unit
A. Picture			A. nutrients		
B. Line Graph			B. water		
C. Bar Chart			C. carbon dioxide		
D. Pie Chart			D. oxygen		