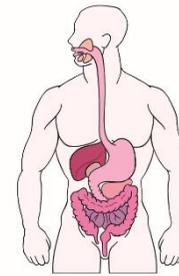


Animals, Including Humans

Science Knowledge Organiser Year 6 Term 4



Key Questions

- What are the main parts of the human circulatory system?
- How do the heart, blood vessels and blood function?
- How are nutrients and water transported around the body?
- How can we lead happy, healthy lifestyles?

Key People

Sir Richard Doll (Linking Smoking and Health Problems)

Justus von Liebig (Theories of Nutrition and Metabolism)

Key Knowledge

What I should already know...

Year 3

- that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- that humans and some other animals have skeletons and muscles for support, protection and movement.

Year 4

- the simple functions of the basic parts of the digestive system in humans
- the different types of teeth in humans and their simple functions
- how to construct and interpret a variety of food chains, identifying producers, predators and prey.

Year 5

- the changes as humans develop to old age.

What I will know at the end of this unit...

- the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
 - The heart keeps the blood pumping around the circulatory system
 - When the heart beats, deoxygenated blood pumps through the right side of the heart and oxygenated blood pumps through the left side of the heart
 - Veins carry blood to the heart, arteries carry blood away from the heart
- Eating a balanced diet, having good personal hygiene and exercising lead to a healthy lifestyle
- Children should be exercising for 60 minutes a day
- The small intestine absorb the water and the digested nutrients. The waste products then move into the large intestine.

Key vocabulary

Absorb - take in or soak up

Aorta - the main artery in the human circulatory system

Artery - the tubes that carry oxygenated blood around the body

Atrium - the upper chambers of the heart

Blood Vessels - the tubes that carry blood around the body (veins, arteries and capillaries)

Circulatory system - A system which includes the heart, veins, arteries and blood transporting substances around the body.

Deoxygenated - to describe blood that is not carrying oxygen

Drug - a substance containing natural or man-made chemicals that has an effect on your body when it enters your system.

Nutrients - a substance that provides nourishment essential for the maintenance of life and for growth.

Oxygenated - to describe blood that is carrying oxygen

Pulse - the beat of your heart

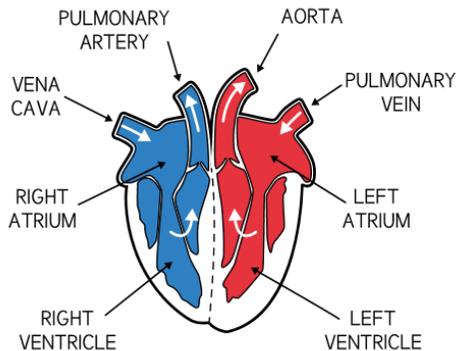
Vein - the tubes that carry deoxygenated blood back to the heart

Vena Cava - a large vein that carries deoxygenated blood into the heart

Ventricle - the main chambers of the heart

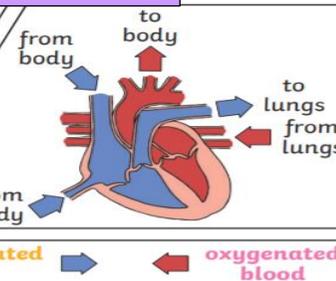
Villi - finger-like structures that line the small intestine to absorb water and nutrients

The Human Heart



More Key Knowledge...

Mammals have **hearts** with four chambers. Notice how the blood that has come from the body is **deoxygenated**, and the blood that has come from the lungs is **oxygenated** again. The blood isn't actually red and blue: we just show it like that on a diagram.



Drugs, alcohol and smoking have negative effects on the body.



A healthy diet involves eating the right types of **nutrients** in the right amounts.

