



Topic: Animals including humans

Year 6

Strand: Biology

What I should know by the end of this unit:

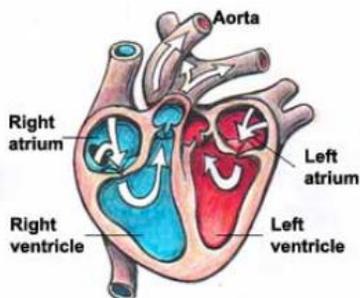
- The main parts of the human circulatory system and the functions of the heart, blood vessels and blood.
- The impact of diet, exercise, drugs and lifestyle on the way their bodies function
- The ways in which nutrients and water are transported within animals, including humans

The circulatory system

The **circulatory system** is the system that circulates blood through the body.

The function of the heart

1. Deoxygenated blood flows into the heart from the body through the veins.
2. The blood is pumped out to the lungs through the pulmonary artery
3. Blood is then oxygenated in the lungs
4. Blood returns to the heart through the pulmonary vein
5. The oxygenated blood is then pumped out of the heart through the aorta
6. The blood travels around the body delivering oxygen and nutrients to the organs



Diet and lifestyle

Fatty rich foods can **clog** arteries and veins, preventing blood from delivering what is needed.

Exercise can improve the health of a person by removing **fatty deposits** from the body

Some exercises are called **cardiovascular** and are designed to improve the fitness of the overall circulatory system by **strengthening** the organs and **pulse rate**.

Key Vocabulary

Spelling	definition
Arteries	Blood vessels that carry blood to the heart
Blood	A red fluid that is pumped by the heart and supplies the body with nutrients and oxygen
Blood vessels	The narrow tubes through which your blood flows includes the arteries, veins and capillaries
Carbon dioxide	Carbon dioxide is a gas produced by animals and people breathing out
Capillaries	Microscopic blood vessels found in the muscles and lungs
Deoxygenated	Deoxygenated is to be depleted of oxygen
Heart	The organ in your chest that pumps the blood around your body.
Lungs	The two spongy organs inside your chest which fill with air when you breathe in. they remove carbon dioxide from blood and add oxygen.
Oxygen	A colourless gas that exists in large quantities in the air. All plants and animals need oxygen in order to live
Oxygenated	To be enriched with oxygen
Ribcage	The bony structure consisting of the ribs and their connective tissue that encloses and protects the lungs and heart.
Veins	Blood vessels that carry blood to the heart



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Phrases about blood

Bad blood	<ul style="list-style-type: none"> • People have argued about something and dislike each other
Bay for blood	<ul style="list-style-type: none"> • Demanding that someone should be hurt or punished
Blue blood	<ul style="list-style-type: none"> • From a family that has high social ranks
Blood out of a stone	<ul style="list-style-type: none"> • People are not being very helpful when you are getting information or persuading someone to talk
Blood, sweat and tears	<ul style="list-style-type: none"> • A very hard thing to do and requires a lot of effort
Blood is thicker than water	<ul style="list-style-type: none"> • Loyalty to their family is greater than their loyalty to anyone else
Own flesh and blood	<ul style="list-style-type: none"> • A member of your family

Some choices can harm the circulatory system

Some choices, such as smoking and drinking alcohol can be harmful to 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

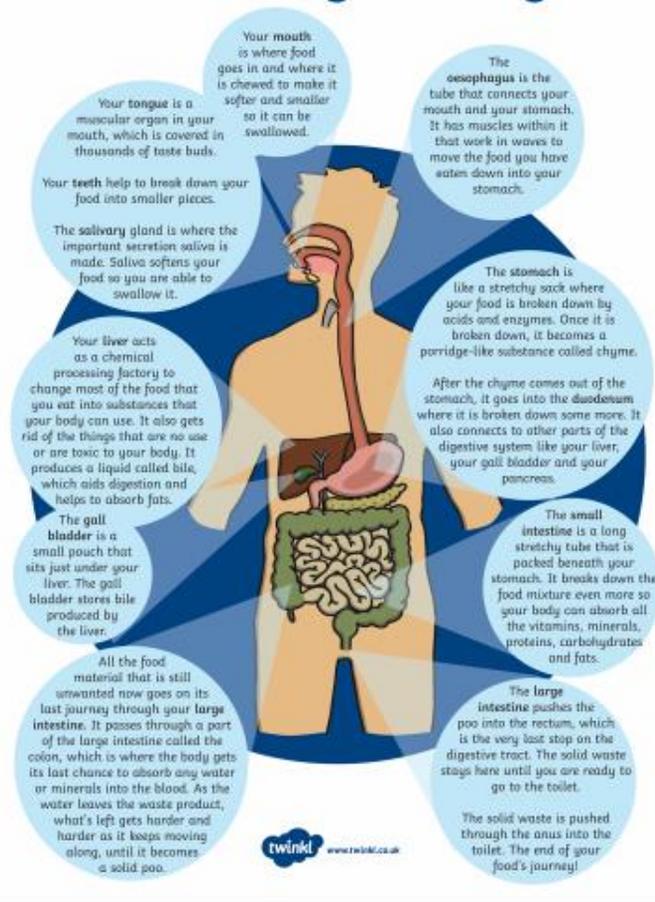
Alcohol can cause short-term effects such as addiction and loss of control and long-term effects such as organ damage, cancer and death

Why is exercise so important?

Exercise can:

- Tone our muscles and reduce fat
- Increase fitness
- Make you feel physically and mentally healthier
- Strengthen the **heart**
- Improve **lung** function
- Improves skin

The Human Digestive System





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The heart, blood vessels and lungs make up the ...	Start of unit	End of unit
Digestive system		
Circulatory system		
Muscular system		
Nervous system		

Which one of these is not an organ?	Start of unit	End of unit
Heart		
Lungs		
blood		

The veins carry _____ blood?	Start of unit	End of unit
Oxygenated		
blue		
deoxygenated		

Click TWO activities below to show the two activities that would increase the pulse rate the most	Start of unit	End of unit
Reading a book		
Playing football		
Going for a walk		
Drinking water		

The function of the blood is to provide the body with ... (tick 3)	Start of unit	End of unit
Nutrients		
Oxygen		
Water		
Carbon dioxide		

Arteries, veins and capillaries are examples of ...	Start of unit	End of unit
Blood		
Blood vessels		
Blood types		
nutrients		

Which of these can harm our bodies? Tick two	Start of unit	End of unit
All Drugs		
Alcohol		
Exercise		
smoking		