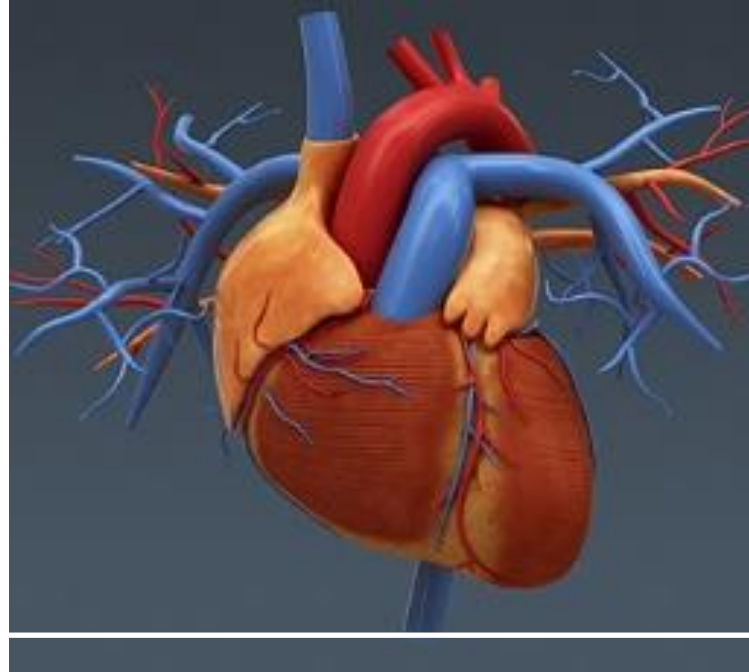


My Knowledge Journal



Circulatory System and Nutrients

Name: _____

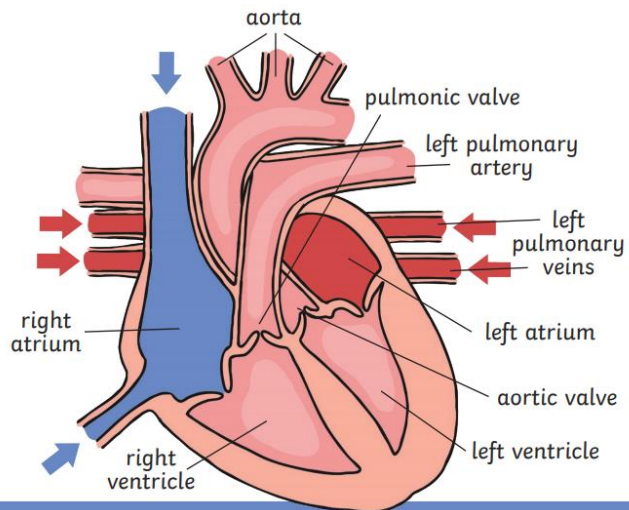
Pre Knowledge Quiz

Q1. List the four main components of blood and explain what they do.

Q2. What is the purpose of the heart?

Q3. What is the difference between veins and arteries?

Q4. Use the diagram to explain how the heart works.



Circulatory System and nutrients

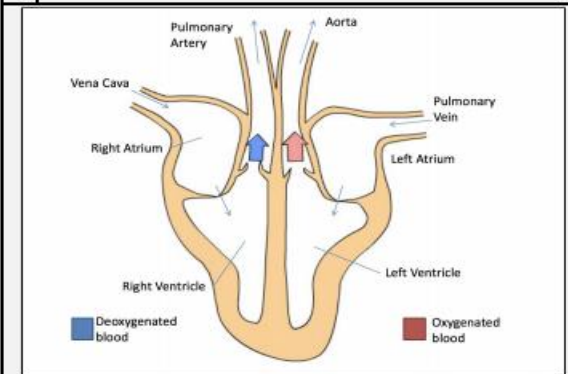
Knowledge Organiser

What should I already know?

- To describe the simple functions of the basic parts of the digestive system in humans

The Function of the Heart:

- 1 Deoxygenated blood flows into the heart from the body through the veins
- 2 This 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.



The Circulatory System

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

blood vessels	the narrow tubes through which your blood flows includes the arteries, veins and capillaries
blood	a red fluid that is pumped by the heart and supplies the body with nutrients and oxygen.
veins	blood vessels that carry blood to the heart.
arteries	blood vessels that carry blood away from the heart.
capillaries	microscopic blood vessels found in the muscles and lungs
oxygen	a colourless gas that exists in large quantities in the air. All plants and animals need oxygen in order to live.
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.
ribcage	the bony structure consisting of the ribs and their connective tissue that encloses and protects the lungs and heart
carbon dioxide	a gas produced by animals and people breathing out
oxygenated	to be enriched with oxygen
deoxygenated	to be depleted of oxygen

Diet and Lifestyle

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

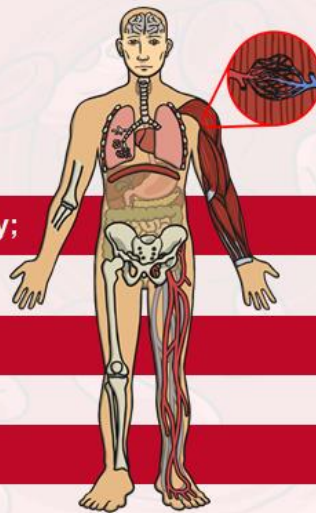
Exercise can improve the health of a person by removing **fatty deposits** from the body.

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

What Is Blood For?

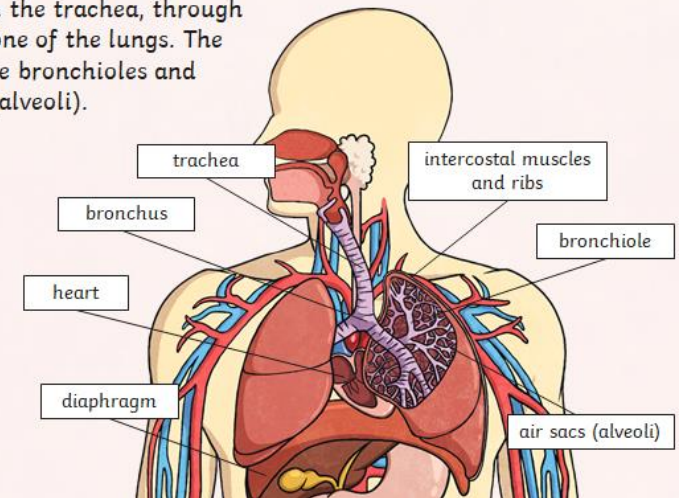
Thanks to all the components of blood (plasma, red blood cells, white blood cells, and platelets) and their functions, we know that blood:

- carries nutrients throughout the body;
- gives oxygen to the body;
- keeps you from getting sick.



The Function of the Lungs

Air breathed in through the mouth or nose travels down the trachea, through the bronchi into one of the lungs. The air travels into the bronchioles and into the air sacs (alveoli).

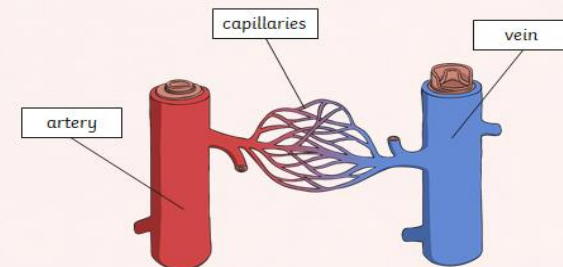


What Blood Vessels Do

Arteries – carries oxygenated blood **away** from the heart

Capillaries – enable **exchange** of oxygen with body

Veins – carries blood from capillaries back to the heart to be pumped **to** the lungs to be re-oxygenated.



Your mouth is where food goes in and where it is chewed to make it softer and smaller so it can be swallowed.

Your tongue is a muscular organ in your mouth, which is covered in thousands of taste buds.

Your teeth help to break down your food into smaller pieces.

The salivary gland is where the important secretion saliva is made. Saliva softens your food so you are able to swallow it.

Your liver acts as a chemical processing factory to change most of the food that you eat into substances that your body can use. It also gets rid of the things that are no use or are toxic to your body. It produces a liquid called bile, which aids digestion and helps to absorb fats.

The gall bladder is a small pouch that sits just under your liver. The gall bladder stores bile produced by the liver.

All the food material that is still unwanted now goes on its last journey through your large intestine. It passes through a part of the large intestine called the colon, which is where the body gets its last chance to absorb any water or minerals into the blood. As the water leaves the waste product, what's left gets harder and harder as it keeps moving along, until it becomes a solid poo.

The oesophagus is the tube that connects your mouth and your stomach. It has muscles within it that work in waves to move the food you have eaten down into your stomach.

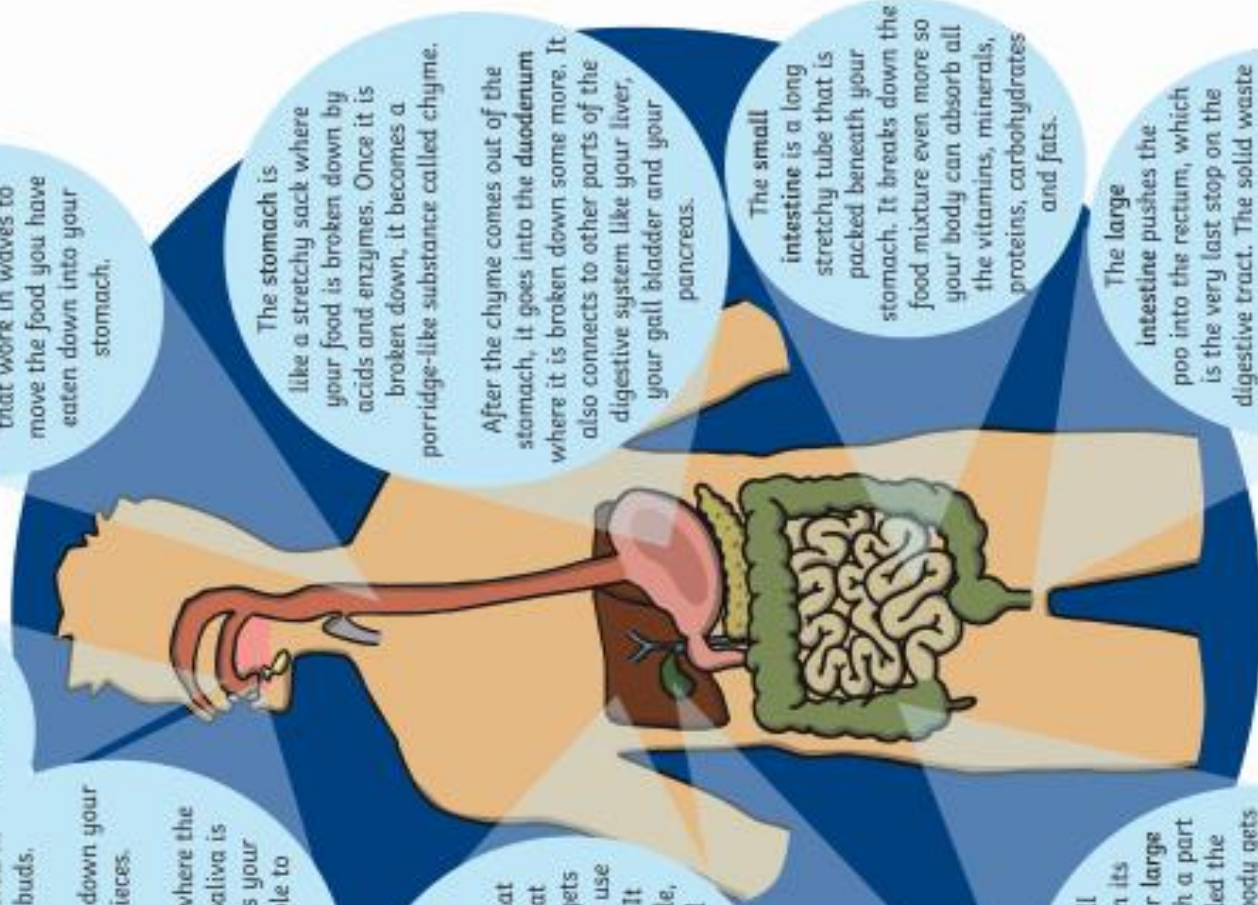
The stomach is like a stretchy sack where your food is broken down by acids and enzymes. Once it is broken down, it becomes a porridge-like substance called chyme.

After the chyme comes out of the stomach, it goes into the duodenum where it is broken down some more. It also connects to other parts of the digestive system like your liver, your gall bladder and your pancreas.

The small intestine is a long stretchy tube that is packed beneath your stomach. It breaks down the food mixture even more so your body can absorb all the vitamins, minerals, proteins, carbohydrates and fats.

The large intestine pushes the poo into the rectum, which is the very last stop on the digestive tract. The solid waste stays here until you are ready to go to the toilet.

The solid waste is pushed through the anus into the toilet. The end of your food's journey!



My Knowledge Builder

My Previous Knowledge...	
New knowledge ...	
Week 1	<ul style="list-style-type: none">•••
Week 2	<ul style="list-style-type: none">•••
Week 3	<ul style="list-style-type: none">•••

Week 4	<ul style="list-style-type: none">•••
Week 5	<ul style="list-style-type: none">•••
Week 6	<ul style="list-style-type: none">•••
Week 7	<ul style="list-style-type: none">•••

Post Knowledge Quiz

Q1. List the four main components of blood and explain what they do.

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Q3. What is the difference between veins and arteries?

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