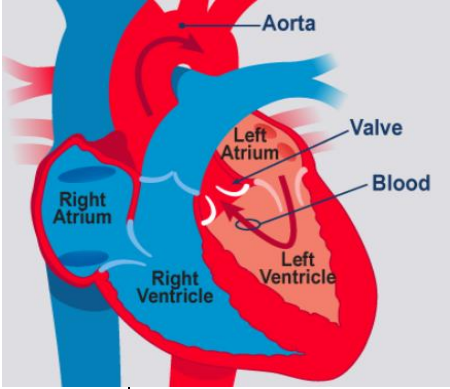
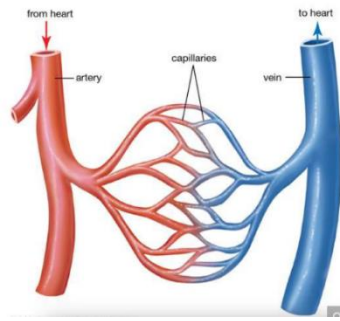


Knowledge Organiser

Subject: Science Unit: Animals including humans - part 2

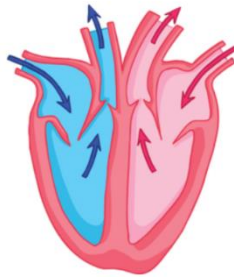
Overview:		
<p>During this sequence of learning, pupils will identify and name the main parts of the circulatory system and describe the functions, recognise the impact of diet, exercise and drugs on the bodies function and describe the ways in which nutrients and water are transported within animals including humans.</p>		
What should I already know?	Vocabulary:	
<ul style="list-style-type: none"> Living things move, grow, consume nutrients and reproduce. Animals, including humans, need food, water and air to survive. People need to exercise often to help their body stay strong and fit. Keeping clean, including washing and brushing teeth, is an important part of staying healthy. There are food groups: fruit and vegetables, carbohydrates, protein, dairy, fat and sugary foods. Proteins are good for growth, carbohydrates for energy and fruit and vegetables provide vitamins and minerals which help keep us healthy. More than half of our diet should be made up of carbohydrates, fruit and vegetables. Fats and sugary foods should be eaten rarely and in small amounts. Getting the right amount of each food group (including over half of the diet made up of fruit, vegetables and carbohydrates) is called a balanced diet. A lack of a nutrient can cause ill health; for example, a lack of vitamin D leads to a disease called rickets. Food passes through the body with the nutrients being extracted and the waste products excreted, and that this process is called digestion. The process of digestion involves breaking complex foodstuffs into simpler building blocks that can be absorbed by the body. 	<p>artery</p> <p>aorta</p>	<p>The largest of the blood vessels which carries blood from the heart to the rest of the body.</p> <p>The main artery of the body that supplies oxygenated blood to the body.</p>
		
<ul style="list-style-type: none"> Getting the right amount of each food group (including over half of the diet made up of fruit, vegetables and carbohydrates) is called a balanced diet. A lack of a nutrient can cause ill health; for example, a lack of vitamin D leads to a disease called rickets. Food passes through the body with the nutrients being extracted and the waste products excreted, and that this process is called digestion. The process of digestion involves breaking complex foodstuffs into simpler building blocks that can be absorbed by the body. 	<p>atrium</p> <p>blood vessels</p>	<p>The upper two sections of the heart.</p> <p>A tube shaped structure that carries blood through the body.</p>
What will I know by the end of the unit?		
<ul style="list-style-type: none"> The heart and lungs are organs protected by the ribcage. The heart pumps blood to the lungs to get oxygenated. This blood is then pumped around the body. Blood travels around the body transporting nutrients that have been absorbed into the blood stream from digestion. Blood also carries oxygen around the body which is used to power the body; this use of oxygen to create energy is called respiration. The heart beats, pumping blood around the body and blood vessels carry the blood; arteries carry blood away from the heart; veins carry blood towards the heart; capillaries are tiny blood vessels that connect arteries and veins. 	<p>capillary</p> <p>circulatory system</p> <p>vein</p> <p>pulse</p>	<p>The smallest of the blood vessels which link the arteries and the veins.</p> <p>Consists of the heart, blood vessels and the blood - the circulatory system transports materials throughout the body.</p> <p>Blood vessels that carry blood back to the heart.</p> <p>The beat you feel in your wrist or neck resulting from</p>

- The heart is composed of four chambers: two atria and two ventricles; the aorta is the largest artery in the body and most major arteries branch off from it.



- The job of the ventricles is to push the blood out of the heart.
- The atria are the two chambers at the top of the heart and the ventricles are at the bottom.

- When we exercise, our heart beats more frequently as it needs to pump more blood around the body. This is due to the muscles needing more oxygen



- When we stop exercising it returns to a resting heart rate; fitter people tend to have lower resting heart rates.
- Drugs are chemicals that have an impact on the natural chemicals in a person's; drugs can be harmful or helpful, depending on what they are and how they are used.
- All drugs can be harmful if they are overused.
- Paracetamol and aspirin are examples of drugs that can be helpful as a painkiller.
- There are illegal drugs that can have serious negative effects.
- Alcohol and tobacco are examples of drugs that are legal to adults but that can have serious negative effects, such as liver disease and lung disease.

blood flowing through the arteries.

ventricle

The lower two sections of the heart.

replenished

To make full or complete again.

resting heart rate

The number of times your heart beats per minute whilst at complete rest e.g. sitting still or lying down quietly.

