

Boarshaw Community Primary School

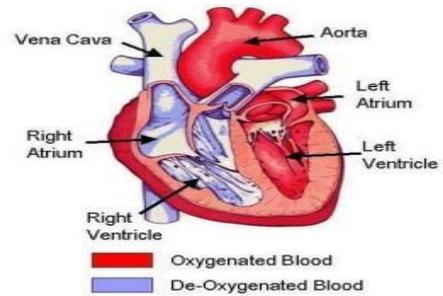
Year 6

Science: Animals Including Humans (the Heart)

Previous knowledge: What should I already know?

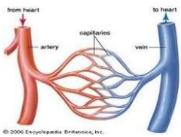
- the function of the skeleton and the purpose of muscles;
- the basic parts of the digestive system and the functions of organs in this system;
- the life cycle of a human and how we change as we grow and develop;
- the importance of exercise, hygiene and a balanced diet.

Diagram of the heart



Key facts / information

What is the **Circulatory System**?



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

Choices that can harm the **circulatory system**.

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

Why is **exercise** so important?

- Exercise** can:
- tone our **muscles** and reduce fat;
 - increase fitness;
 - make us feel physically and mentally healthier;
 - strengthen the **heart**;
 - improve your **lung** function;
 - improve your skin.

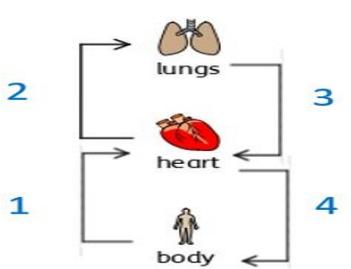
- The heart is composed of four chambers: the right and left atrium and the right and left ventricle.
- The right atrium collects the deoxygenated blood from the body and sends the blood to the right ventricle.
- The right ventricle pumps the deoxygenated blood to the lungs. Here the blood picks up oxygen and disposes of carbon dioxide.
- The lungs send oxygenated blood back to the left atrium which pumps it to the left ventricle.
- The left ventricle pumps the blood to the rest of the body, via the aorta.
- How often your heart pumps is called your pulse.

Key knowledge: What I should know by the end of the unit?

- The effect of exercise on the heart and how pulse can be used as a measure of this.
- How to present this data effectively.
- The names of the different parts of the heart and how to locate them on a diagram and on a dissected animal heart.
- The four parts of the blood (red blood cells, white blood cells, platelets and plasma) and the job of each of these.
- Effects of food, drugs and alcohol on the body.

Key vocabulary

<p>aorta the main artery through which blood leaves your heart before it flows through the rest of your body</p> <p>artery a tube in your body that carries oxygenated blood from your heart to the rest of your body</p> <p>atrium one of the chambers in the heart</p> <p>blood vessels the narrow tubes through which your blood flows. Arteries, veins and capillaries are blood vessels</p> <p>capillaries tiny blood vessels in your body</p> <p>carbon dioxide a gas produced by animals and people breathing out</p> <p>heart the organ in your chest that pumps the blood around your body</p> <p>lungs two organs inside your chest which fill with air when you breathe in. They oxygenate the blood and remove carbon dioxide from it</p>	<p>nutrients substances that help plants and animals to grow</p> <p>organ a part of your body that has a particular purpose</p> <p>oxygen a colourless gas</p> <p>oxygenated blood blood that contains oxygen</p> <p>pulse the regular beating of blood through your body.</p> <p>respiration process of respiring; breathing ; inhaling and exhaling air.</p> <p>veins a tube in your body that carries deoxygenated blood to your heart from the rest of your body</p> <p>vena cava a large vein through which deoxygenated blood reaches your heart from the body</p> <p>ventricle one of the chambers in the heart</p>
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	Start of unit	End of unit
Question 1: What is circulation? Can you name any parts of the circulatory system?		
Question 2: What are the names of the 4 different parts of your blood and what do they do?		
Question 3: Which of these activities would increase your pulse rate? Reading a book Playing football Going for a walk Drinking water Singing loudly		
Question 4: How does blood travel around your body?		
Question 5: Which of these is not an organ? Heart Blood Stomach Brain		
Question 6: How does drinking alcohol affect your body?		
Question 7: Can you explain what is happening at the different stages in the diagram? 	1. 2. 3. 4.	1. 2. 3. 4.

