

The human heart

Outstanding Science Year 6 - Animals, including humans - OS6B002

National Curriculum Statutory Requirements

6B1 - identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

Learning Objective

I can explain how the human heart works.



Me:   

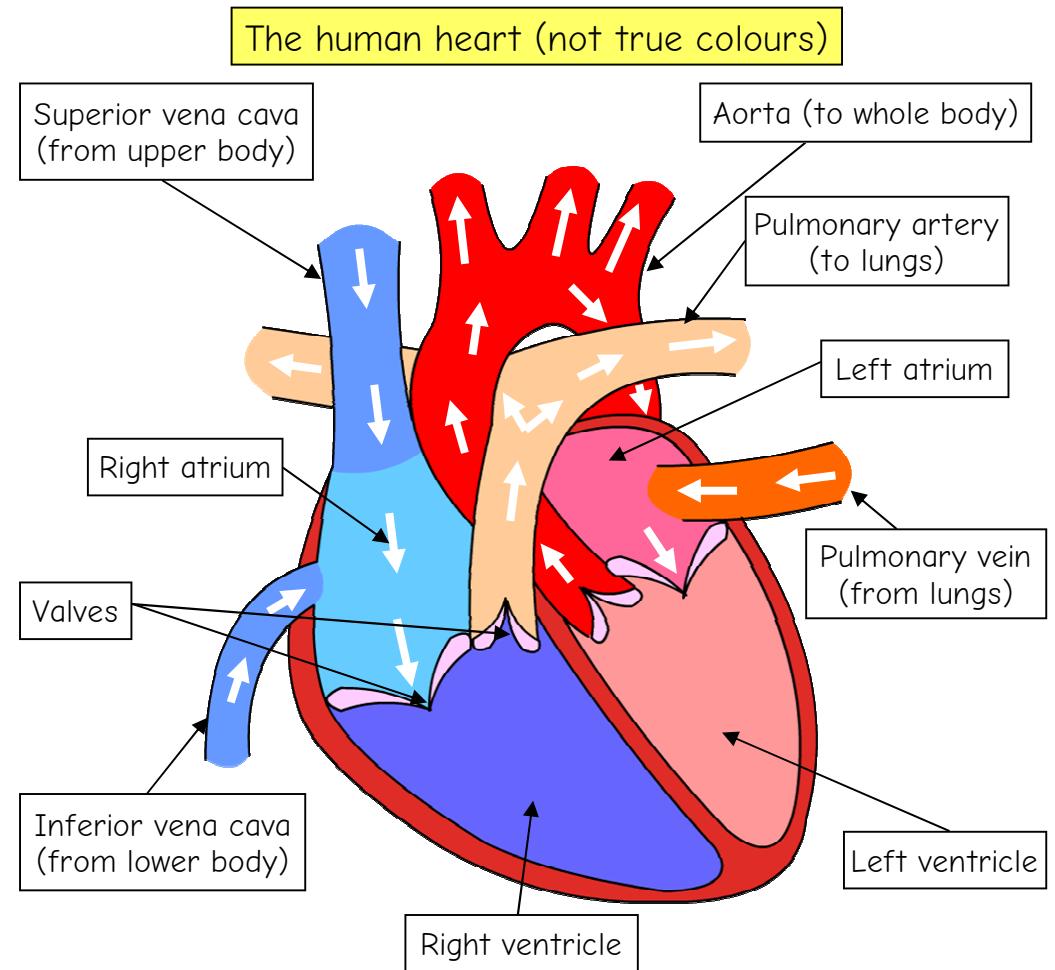
Teacher:   

The human **heart** is a **vital organ** - this means that it is essential for survival. It is located in the centre of the chest, protected by the **ribcage**. The main function of the heart is to pump **blood** continuously around the body. All of the **cells** in our body need oxygen in order to stay alive.

The human heart has a **double pump** system, pumping blood to the **lungs** and then around the **body**. Blood from around the body, low in **oxygen**, enters the **right atrium**. The heart pumps the blood through a valve (one-way opening) into the **right ventricle**.

From here, the blood travels to the **lungs** via the **pulmonary artery**. The lungs remove waste products, such as **carbon dioxide**, from the blood, while adding **oxygen**. The oxygenated blood re-enters the **left atrium** of the heart via the **pulmonary vein**.

It then passes through a valve into the **left ventricle**. The oxygen-rich blood then passes out of the heart through the **aorta**, which branches off into smaller **arteries** which reach all different parts of the body.



Activity

Look at the diagram on the following page. Carefully cut out the text boxes and paste them in the correct order, explaining the function of the human heart. For an added challenge, add your own descriptions and label the diagram.

The oxygen-rich blood re-enters the heart through the left atrium and passes into the left ventricle.	Blood is pumped from the right atrium into the right ventricle via a valve , preventing the blood from flowing backwards.	The oxygen-rich blood re-enters the heart through the left atrium and passes into the left ventricle.	Blood is pumped from the right atrium into the right ventricle via a valve , preventing the blood from flowing backwards.
The oxygenated blood leaves the left ventricle and enters the aorta . The aorta branches into smaller arteries throughout the body.	The blood is pumped out of the right ventricle and into the pulmonary artery , which carries the deoxygenated blood to the lungs .	The oxygenated blood leaves the left ventricle and enters the aorta . The aorta branches into smaller arteries throughout the body.	The blood is pumped out of the right ventricle and into the pulmonary artery , which carries the deoxygenated blood to the lungs .
The newly-oxygenated blood travels from the lungs back towards the heart through the pulmonary vein .	Blood from around the body, low in oxygen and containing waste products such as carbon dioxide, enters the heart via the right atrium .	The newly-oxygenated blood travels from the lungs back towards the heart through the pulmonary vein .	Blood from around the body, low in oxygen and containing waste products such as carbon dioxide, enters the heart via the right atrium .
In the lungs, gas exchange takes place between the blood and the air in the lungs. Carbon dioxide leaves the blood, and oxygen enters.	Cells throughout the body take oxygen from the blood for survival, and excrete waste products, such as carbon dioxide , into it.	In the lungs, gas exchange takes place between the blood and the air in the lungs. Carbon dioxide leaves the blood, and oxygen enters.	Cells throughout the body take oxygen from the blood for survival, and excrete waste products, such as carbon dioxide , into it.

Teacher's note - there are enough resources on this page for two children, to save on printing and photocopying costs.

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