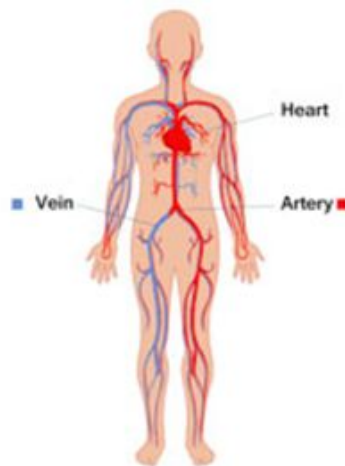


The Human Body: 4th Grade- Unit 1, Lesson 2

Science concept: The Heart and the Circulatory system

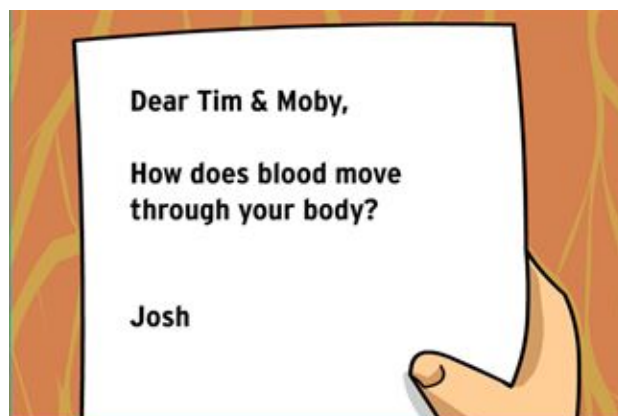
Hey guys! Have you ever wondered how your blood moves around the body? Well the circulatory system is responsible for the process of blood transport. As the name suggests, this body system **circulates** blood around the body using a network of organs and vessels. The circulatory system is often referred to as the **cardiovascular system** and its main function is to transport nutrients to all cells of the body and remove waste products, through the blood.



Supplementary teaching video link

Here's a video with a bit more information on circulatory system:

<https://www.brainpop.com/health/bodysystems/circulatorysystem/>



Blood in your body certainly gets around! In this BrainPOP movie on circulation, Tim and Moby talk about your circulatory system and how blood moves through your body.

Concept reinforcement questions

1. The three parts of the circulatory system are _____, _____ and _____?
2. Blood travels around the body in _____
3. What are the 3 main blood vessels?
4. What is the main function of the heart?
5. What is another name for the circulatory system?
6. What is the difference between pulmonary circulation and coronary circulation.

Answers:

1. *the heart, blood and blood vessels*
2. *blood vessels*
3. *Arteries, veins, capillaries*
4. *pump blood around the body*
5. *cardiovascular system*
6. *pulmonary circulation occurs in the heart and lungs. Coronary circulation occurs in the heart only.*

Additional reading

The heart acts as a pump, pushing blood to all parts of the body and maintaining blood flow. The blood contains useful materials like oxygen, water and nutrients and removes waste products like carbon dioxide. Think of your blood vessels as a series of pipes. They are responsible for transporting blood through the body. The arteries transport blood from the heart to all parts of the body while the veins transport blood back to the heart. The capillaries connect the arteries and veins.

The proper functioning of the circulatory system is important for a healthy life. Therefore, we must exercise regularly, have a healthy balanced diet and stay away from tobacco and other harmful substances to ensure our heart stays healthy.

DID YOU KNOW?

Humans and other mammals have a **closed circulatory system** while invertebrates have an **open circulatory system**. In a closed circulatory system, the heart pumps blood through vessels. In an open circulatory system, the blood is not contained in blood vessels.

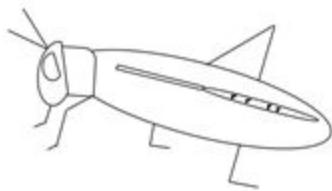


Image 1: Open circulatory system



Image 2: Closed circulatory system



Scratch software

Create an animation explaining the function of the circulatory system. Don't forget to include the three major parts(heart, blood, blood vessels) and their functions.

This might be useful when creating your animation!

<https://youtu.be/HBBSmkBwVXY>