

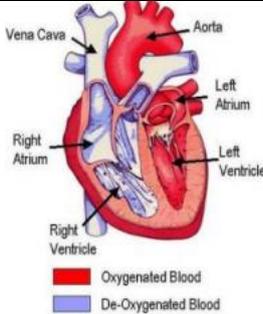
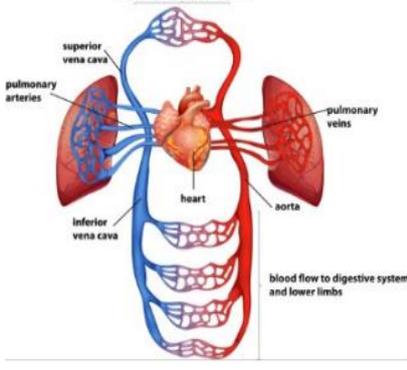


Lilycroft Primary School Science Knowledge Organiser



Topic: Animals including humans	Year: 6	Strand: Biology
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What should I already know?	
	*The different types of teeth *The main parts of the digestive system
What will I know by the end of the unit?	
The human circulatory system	
What are the main parts of the circulatory system?	Heart Blood vessels Blood
What is the circulatory system?	<ul style="list-style-type: none"> • The circulatory system is made of the heart, lungs and the 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.
What does the heart do?	* The heart pumps blood through the blood vessels so that food and oxygen can get to all parts of the body.
What do the blood vessels do?	* The blood vessels carry the blood around the body.
What are the three types of blood vessels?	* The arteries- carry the blood away from the heart. * The capillaries- enable the actual exchange of energy between the blood and the tissues. * The veins- carry blood from the capillaries back toward the heart.
What does the blood do?	Blood moves food and oxygen around the body.
Healthy choices	
What choices can harm the circulatory system?	* Some choices, such as smoking, drugs and drinking alcohol can be harmful to our health. * Smoking is addictive and can cause heart disease and cancer. * Drugs can be addictive and damage the brain or cause death. * Small amounts are ok. Large amounts can damage liver, heart and stomach.
Why is exercise important?	* Tones our muscles and reduce fat * Increase fitness * Makes you feel physically and mentally healthier * Strengthens the heart * Improves lung function * Improves skin

Diagram	
 <p style="text-align: center; font-size: small;">blood flow to head and arms</p>  <p style="text-align: center; font-size: small;">blood flow to digestive system and lower limbs</p>	<p>* The heart is composed of four chambers; the right atrium, the right ventricle, the left atrium and the left ventricle. * How often your heart pumps is called your pulse.</p> <ol style="list-style-type: none"> 1. The right atrium collects the deoxygenated blood from the body. It sends the blood to the right ventricle. 2. The right ventricle pumps the deoxygenated blood to the lungs. Here the blood picks up oxygen and disposes of carbon dioxide. 3. The lungs send oxygenated blood back to the left atrium which pumps it to the left ventricle. 4. The left ventricle pumps the blood to the rest of the body.

Vocabulary	
WORD	DEFINITION
Arteries	a tube in your body that carries oxygenated blood from your heart to the rest of your body
Atrium	one of the chambers in the heart
Blood vessels	the narrow tubes through which your blood flows. Arteries, veins and capillaries are blood vessels.
Carbon dioxide	a gas produced by animals and people breathing out
Deoxygenated	blood that does not contain oxygen
Lungs	two organs inside your chest which fill with air when you breathe in. They oxygenate the blood and remove carbon dioxide from it.
Oxygen	a colourless gas that plants and animals need to survive
Oxygenated	blood that contains oxygen
Pulse	the regular beating of blood through your body. How fast or slow your pulse is depends on the activity you are doing.
Respiration	process of breathing- inhaling and exhaling air
Veins	a tube in your body that carries deoxygenated blood to your heart from the rest of your body.
Ventricle	one of the chambers in the heart.

Investigations/Working Scientifically
How does your pulse change with exercise? Which exercise produces the fastest pulse? How would you make this a fair test?