

SMRP Knowledge Organiser for Year 6: Animals including Humans—Circulatory System

Science knowledge

All animals, including humans, have a circulatory system.

Blood helps oxygen get around your body. It also delivers nutrients and water to the different parts of your body and then carries waste such as carbon dioxide away.

Your pulse tells you how fast your heart is pumping.

The heart pumps blood and keeps it flowing in the circulatory system. It never stops pumping blood whilst you are alive.

The circulatory system is made up of the heart, blood and blood vessels. It is the body's delivery system and moves oxygen and nutrients to different parts of the body and takes waste products such as carbon dioxide away .

We need to look after our bodies and keep them healthy. We can do this by exercising regularly and eating a balanced diet. Drinking alcohol, smoking tobacco and taking certain drugs can have a negative impact on our bodies

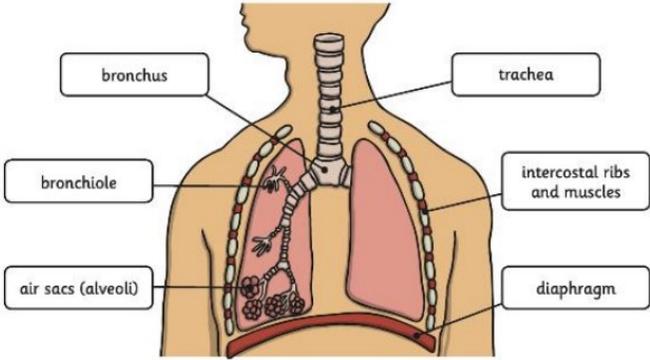
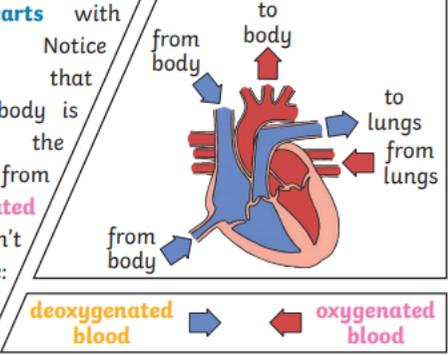
- Increase the amount of oxygen around the body.
- Strengthen bones
- Helps you sleep more easily
- Releases brain chemicals which help you feel calm and relaxed.
- Improves circulation.
- strengthens muscles including the heart muscle.



Regular exercise

The Human Circulatory System

Mammals have **hearts** with four chambers. Notice how the blood that has come from the body is **deoxygenated**, and the blood that has come from the lungs is **oxygenated** again. The blood isn't actually red and blue: we just show it like that on a diagram.



Science Vocabulary

Word	Definition
Respiration	the act or process of breathing : the inhaling of oxygen and the exhaling of carbon dioxide.
Exercise,	physical activity that is planned, structured, and repetitive for the purpose of conditioning the body.
Valve,	any of the valves that control blood flow to and from the heart
Deoxygenated	oxygen has been removed. An example of deoxygenated is when oxygen has been
Oxygenated	as a blood cell with large percentage of oxygen and low in carbon dioxide
Arteries,	A set of tubes in the body that take blood AWAY from the heart.
Veins	Tubes forming part of the bloody circulation system of the body, carrying blood
Vessels	A tubular structure carrying blood through the tissues and organs
Blood,	Red liquid that circulates in arteries and veins, carrying oxygen to and carbon diox-
Heart	An organ in the body that pumps blood. It is the size of your fist and is found slightly to the left of your chest.
Circulatory	The circulatory system is the body system that moves blood round the body. The heart and all blood vessels make up the circulatory system.