



Knowing More and Remembering More at Sacred Heart

Key Vocabulary

Circulatory system: the name given to the process where the heart pumps blood to all of the different parts of the body, the blood carries, food and oxygen that the rest of the body needs to survive.

Blood: a red fluid that travels around your body in tubes called blood vessels.

Red blood cells: these give blood its colour and carry oxygenated blood around the body.

White blood cells: these keep you healthy by destroying germs they find in your body.

Platelets: these are tiny sticky cells that help stop bleeding when you cut yourself.

Plasma: this is a yellow liquid which is made up mostly of water mixed with sugar, vitamins and proteins that carries your blood cells around your body.

Septum: is a thick wall of muscle in the middle of the heart that separates the left half from the right half.

Veins: carry deoxygenated blood

Arteries: carry oxygenated blood

Ventricles, atriums and chambers: Parts of the heart. (See diagram)

Organ donation: when a person allows an organ of theirs to be removed and transplanted to another person.

Blood

What is blood?

How are nutrients transported around the body?

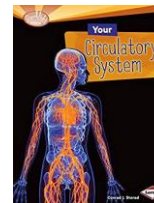
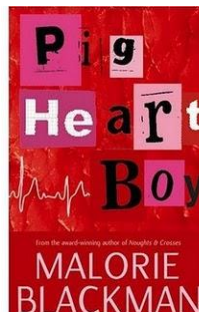
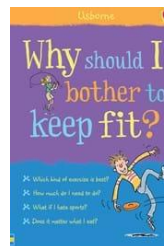
What are the main functions of the heart, lungs and blood vessels in the circulatory system?

How is blood made?

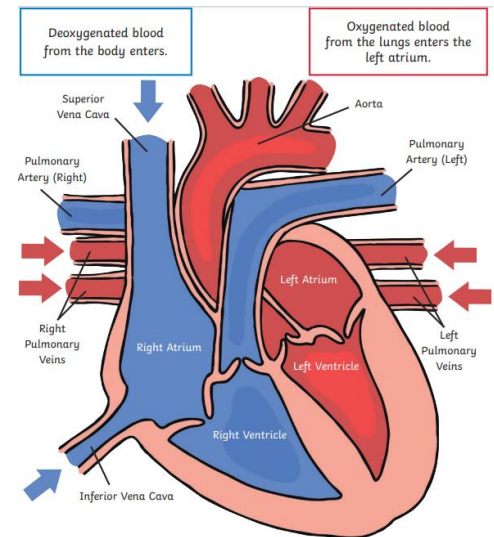
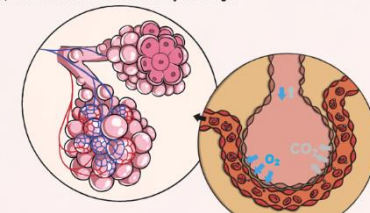
What constitutes a healthy lifestyle?

How do drugs and alcohol, and diet and exercise impact the body?

Suggested Reading

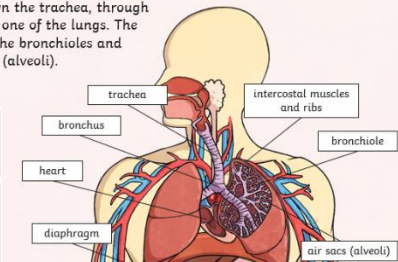


The oxygen is absorbed into the blood through a layer of moisture in the air sacs (alveoli). Carbon dioxide in the blood is transferred back into the air, which then travels back out of the lungs.



The Function of the Lungs

Air breathed in through the mouth or nose travels down the trachea, through the bronchi into one of the lungs. The air travels into the bronchioles and into the air sacs (alveoli).



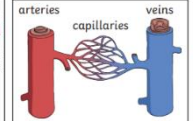
Blood transports:

- gases (mostly oxygen and carbon dioxide);
- nutrients (including water);
- waste products.

The liquid part of blood contains water and protein. This is called plasma.

Capillaries are the smallest blood vessels in the body and it is here that the exchange of water, nutrients, oxygen and carbon dioxide takes place.

Arteries carry oxygenated blood away from the heart.



Veins carry deoxygenated blood toward the heart.

If you linked up all of the body's blood vessels, including arteries, capillaries, and veins, they would measure over 60,000 miles.



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Timeline

1945	End of the Second World War
5 th July 1948	The NHS was founded by Labour Health Minister Aneurin Bevan.
21 st June 1948	Rune Elmqvist, a Swedish medical doctor/engineer, invented the first pace maker.
20 th May 2020	A new law, set to save hundreds of lives, was passed so that people have to 'opt out' of organ donation.

Key Characters:



Rune Elmqvist:

Rune Elmqvist was born in 1906 and developed the first implantable pacemaker in 1958, working under the direction of Åke Senning, senior physician and cardiac surgeon at the Karolinska University Hospital in Solna, Sweden. Elmqvist initially worked as a medical doctor, but later worked as an engineer and inventor. He passed away in 1996.



Pablo Picasso:

Pablo Ruiz Picasso was born in 1881. He was a Spanish painter, sculptor, printmaker, ceramicist and theatre designer who spent most of his adult life in France. He passed away in 1973.

Key Vocabulary

Drug: a substance that has an effect on your body.

Alcohol: a drug produced through grains, fruits or vegetables.

Nutrients: substances that animals need to stay healthy.



Drugs, alcohol and smoking have negative effects on the body.

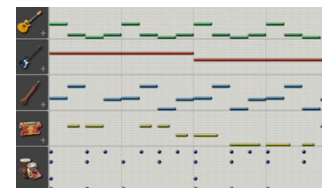


A healthy diet involves eating the right types of nutrients in the right amounts.



Regular Exercise: • strengthens muscles including the heart muscle; • improves circulation; • increases the amount of oxygen around the body; • releases brain chemicals which help you feel calm and relaxed; • helps you sleep more easily; • strengthens bones. It can even help to stop us from getting ill.

COMPOSE
MUSIC



IMPROVISE

RHYTHM

BEAT

