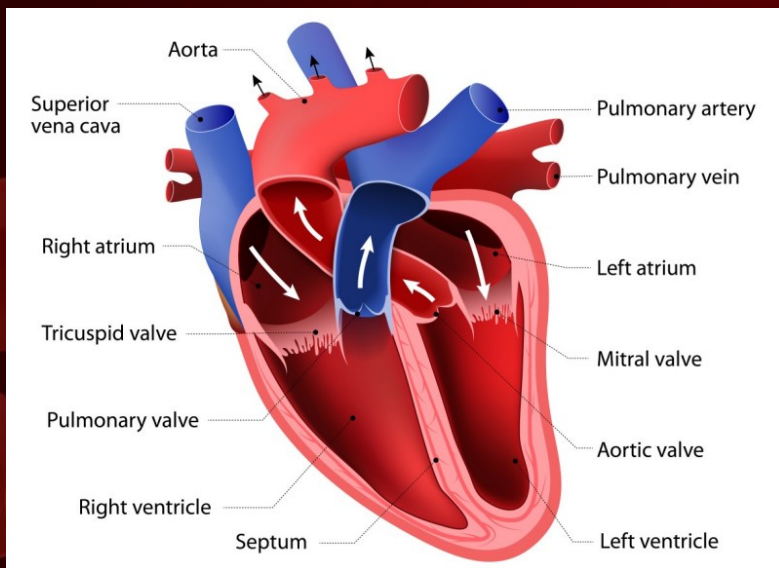


STAYING ALIVE!



In this unit, I will:

- ◇ identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
- ◇ recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
- ◇ describe the ways in which nutrients and water are transported.
- ◇ work scientifically to design fair experiments investigating heart rate.

The Circulatory System

The **red vessels** are **arteries** and the **blue vessels** are **veins**. Arteries have thick, muscular walls and carry oxygenated blood from the heart to the rest of the body. Veins carry deoxygenated blood back to the heart and have thinner walls.

Capillaries are microscopic vessels which link the veins and arteries together.

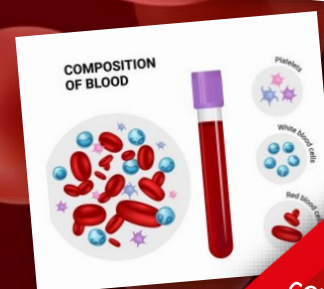
The entire trip around your body only takes blood about 20 seconds in total. Blood is what is used to transport oxygen, waste, nutrients, and more throughout the body.

Because your heart is crucial to your survival, it's important to keep it healthy with a well-balanced diet and exercise, and avoid things that can damage it, like smoking.

Your body makes 2.5 million new **red blood cells** every second.

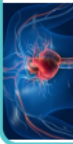
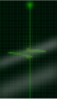
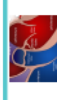
One drop of blood as over five million red blood cells. Each red blood cell lives for 120 days.

A blood cell can travel around your body in 20 seconds



Red blood cells carry oxygen. White blood cells fight infection as part of the immune system. Platelets help to clot (thicken) the blood and form a scab. Plasma is the fluid part of the blood, which transports water.

Rocket Words

	circulatory system	the system that controls the flow of blood around the body
	BPM	beats per minute measuring heart rate
	diet	the kind of food an animal usually eats
	pulse	the rhythmic throbbing of the arteries as blood is pumped through them
	oxygenated	containing oxygen
	deoxygenated	not containing oxygen
	atrium	the upper chambers of the heart
	ventricle	the lower chambers of the heart
	vessel	tube which circulates the blood through the body
	valve	flaps which open and close to allow blood flow
	diffusion	diffusion is the movement of all liquids and gases
	osmosis	osmosis is the movement of water only

Working Scientifically

