



Year 6 – Animals including humans

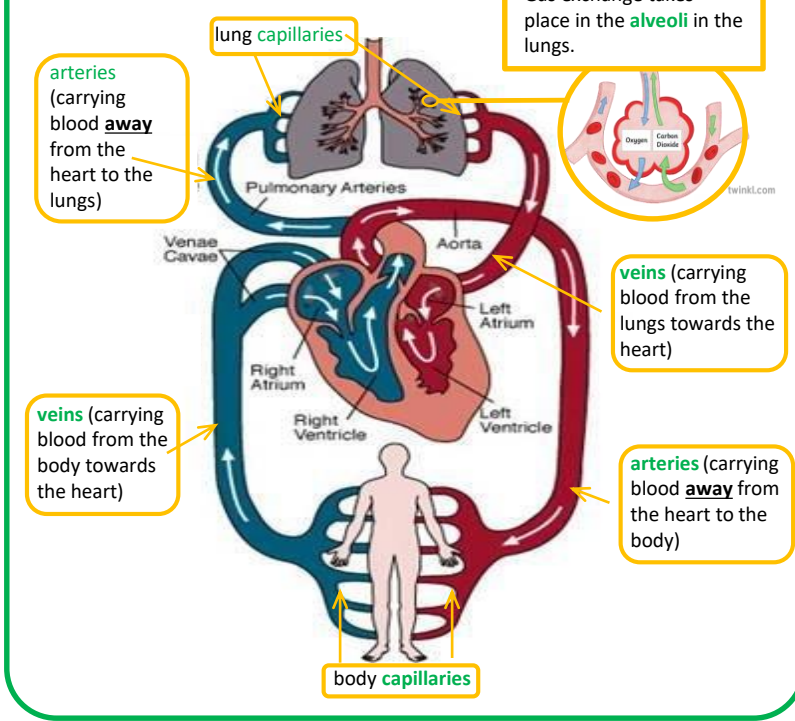
A healthy heart beats between 60 and 100 times a minute.

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

Vital Vocabulary – learn these words and their definitions

Key Word	Definition
circulatory system	A system that includes the heart , veins, arteries and blood transporting substances around the body
blood vessels	A tubular structure carrying blood through the tissues and organs
arteries	Blood vessels that carry blood away from the heart
veins	Blood vessels that carry blood towards the heart
capillaries	Tiny blood vessels with walls one-cell thick where exchange of materials occurs
oxygenated	When blood is enriched with oxygen from the lungs
deoxygenated	When blood is low in oxygen (Oxygen has passed from the blood to the body cells.)
addiction	An inability to stop consuming a substance

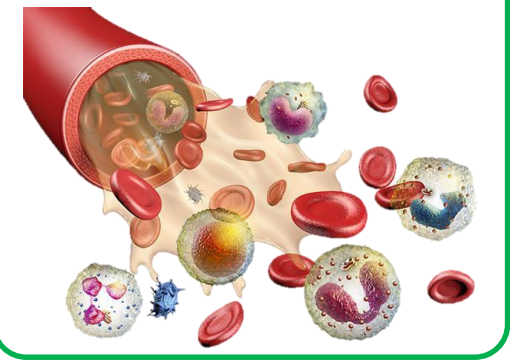
Our Circulatory System



Blood

Blood transports substances around the body, helps the body fight infection and stops you bleeding when you get hurt.

- Red blood cells transport oxygen.
- Plasma is the liquid (carbon dioxide and nutrients are transported in it).
- White blood cells fight microbes that make you sick.
- Platelets help your blood to clot.



The impact of diet, exercise and drugs on our bodies

Regular exercise:

- strengthens muscles, including the heart
- improves circulation
- releases brain chemicals, which help you feel more relaxed
- helps you sleep more easily
- strengthens bones



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



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

William Harvey (1578 – 1657)

William Harvey, an English doctor, was the first person to correctly describe how blood is pumped around the body by regular contractions of the heart.



Each second we lose about 3 million red blood cells, only to be replaced by the same number produced in the bone marrow.

The blueish colour of some veins is an optical illusion: all blood is red.