

Vocabulary

heart the organ that pumps your blood around the body

circulation the movement of blood through the vessels.

pulse rate the number of times the heart beats in a minute

blood vessels the tubes that carry blood around the body.

Arteries, capillaries, veins are all blood vessels.

vein a blood vessel that carries blood from the body toward the heart.

artery blood vessel that carries blood away from the heart to the rest of the body.

capillary Tiny blood vessels whose walls are so thin that oxygen, nutrients, and waste products flow through them.

aorta the largest artery in the body, which delivers blood from the heart to the rest of the body.

atrium one of the upper two hollow chambers of the heart that collects blood as it enters the heart and before it is pumped to the ventricles.

blood A fluid found in humans and other animals which provides nutrients and oxygen to all parts of the body.

heart valves the heart that open and close automatically to control blood flow into, through, and out of the heart.

ventricle one of the two lower chambers of the heart. The right ventricle sends blood to the lungs and the left ventricle sends blood carrying oxygen to the rest of the body.

lungs pair of organs situated within the ribcage where oxygen can pass into the blood and carbon dioxide be removed

nutrients substances that provides nourishment essential for the maintenance of life and for growth

Biology

Science Y5: Heart and Health

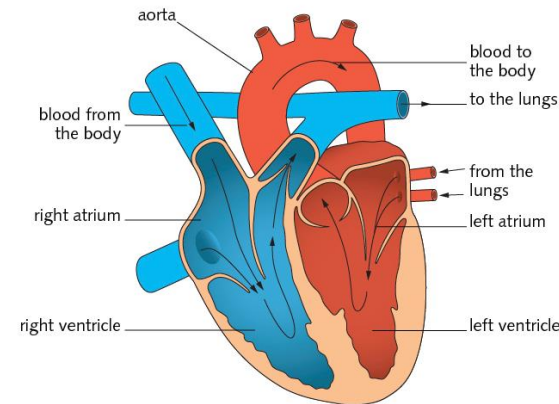
Key knowledge and diagrams

circulatory system The main parts of the circulatory system are the heart, blood vessels (arteries, veins and capillaries) and blood. These work together to deliver oxygen and nutrients to every part of the body. Blood transports gases, nutrients, water and waste products around the body.

the health of humans can be adversely affected by the following: a poor diet; exposure to disease-causing micro-organisms; exposure to harmful substances (alcohol, tobacco, drugs and solvents); lack of exercise, rest and sleep; stress.

regular exercise strengthens muscles including the heart; increases the amount of oxygen around the body; helps you sleep more easily; strengthens bones; releases brain chemicals which help you feel calm and relaxed.

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



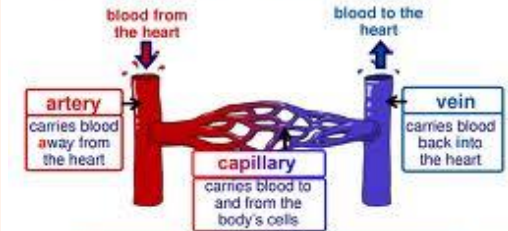
Scientists



William Harvey 1578 - 1657

Blood vessels

There are **three types** of blood vessels, as shown in this magnified part of the circulatory system.



Why are there different types of blood vessels?

Links to prior learning

skeletal, muscular and digestive systems in Y3 and Y4

Links to other subjects

maths – calculating heart rate
creating, plotting and interpreting bar graphs