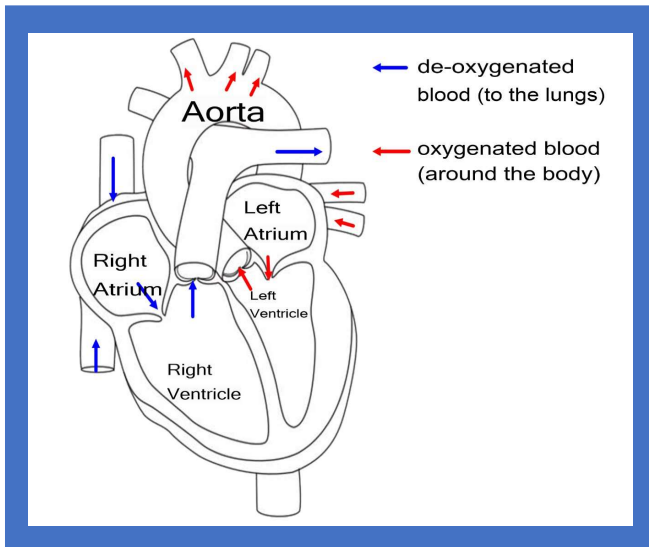


Knowledge Organiser Year 4 Science - Circulation and Respiration

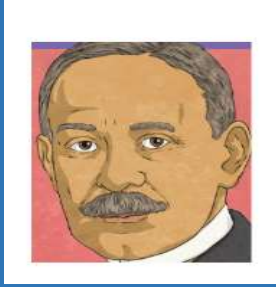
The heart pumps blood around the body.
Blood carries oxygen and vital nutrients to every part of the body.



Atria	The two top chambers of the heart; right and left. Take in blood from the vena cava and pulmonary veins.
Ventricles	Two lower chambers; right and left. Pump blood out of the heart.

Artery	Carries oxygen-rich blood away from the heart.
Vein	Carries deoxygenated blood to the heart.
Capillaries	Thin blood vessels that connect arteries and veins.

Daniel Hale Williams
1856– 1931

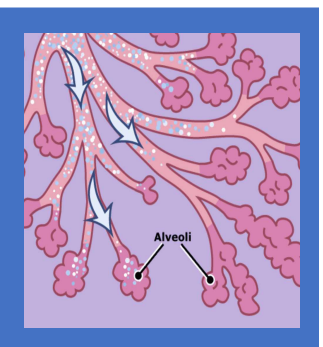
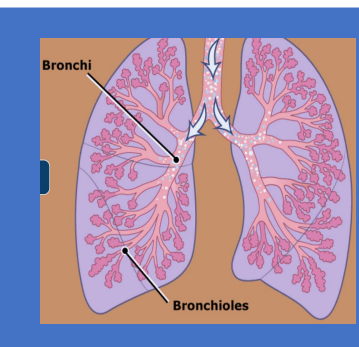
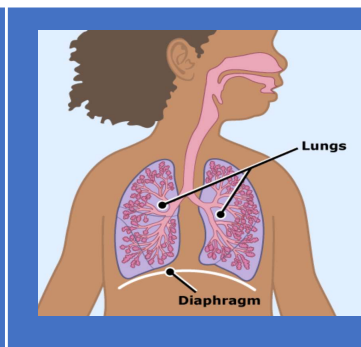
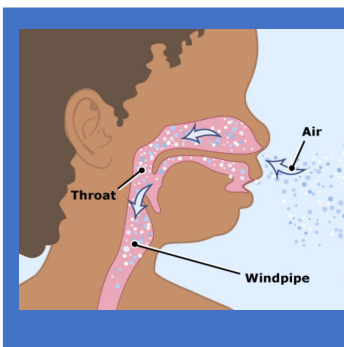


Performed the world's first successful open-heart surgery in 1893.

First black person admitted to the American College of Surgeons.

Artery	thick, elastic wall small lumen
Vein	thin wall large lumen valve
Capillary	single cell wall

Lungs	Inflatable sacs that expand and contract as you breathe.
Trachea	Tube that carries air from the mouth and nose to the lungs (also called windpipe).
Bronchi	Tubes that carry air from the trachea to the lungs.
Alveoli	Air sacks where oxygen and carbon dioxide are exchanged.



Prior learning
Year 1/2 Science-The Human Body

Scientific investigation
Aim-Purpose or reason for experiment
Prediction-What will happen in the experiment
Method- Step by step process
Variable- anything that change or be changed
Fair test- Independent variable is changed but all the controlled variable stays the same.