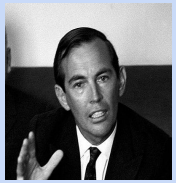
Grange Park Primary School Year 6 Autumn 2 Science

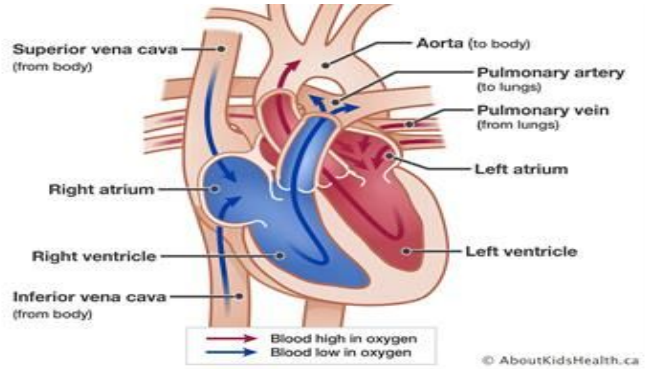
The Circulatory System

Significant Scientist

Christiaan Neethling Barnard 	Christiaan Barnard (1922 - 2001) was a South African cardiac surgeon who performed the world's first human-to-human heart transplant operation. On 3 December 1967, Barnard transplanted the heart of accident-victim Denise Darvall into the chest of 54-year-old Louis Washkansky, with Washkansky regaining full consciousness, before dying eighteen days later of pneumonia.
Barbara Casadei	Barbara Casadei (1959 - present) is a researcher and professor of cardiovascular medication. She supports The British Heart Foundation and those that work for this charity, finding cures for cardiovascular conditions.

Working Scientifically Skills

- Plan
- Measure
- Fair test
- Report data – scientific diagrams, labels, bar graphs and line graphs.
- Present – conclusions, casual relationships, explanations.



Key Knowledge

The heart is composed of four chambers; the right atrium, the right ventricle, the left atrium and the left ventricle. The rate that your heart pumps is called your pulse.

The circulatory system is made up of the heart, lungs and blood vessels. Arteries carry oxygenated blood from the heart to the rest of the body. Veins carry deoxygenated blood from the body to the heart.

The function of the heart:
-Deoxygenated blood flows into the heart from the body through the veins.
-This blood is pumped out of the lungs through the pulmonary artery.
-Blood is then the oxygenated in lungs.
-Blood returns to the heart through the pulmonary artery.
-The oxygenated blood is then pumped out of the heart through the aorta.
-The blood travels around the body delivering oxygen and nutrients to the organs.

Things that can harm the circulatory system:
Smoking and drinking alcohol can be harmful to our health.
Tobacco can cause short-term effects such as shortness of breath and loss of taste and long term effects such as lung disease and cancer.
Alcohol can cause short term effects such as addiction and long term effects such as organ damage and cancer.

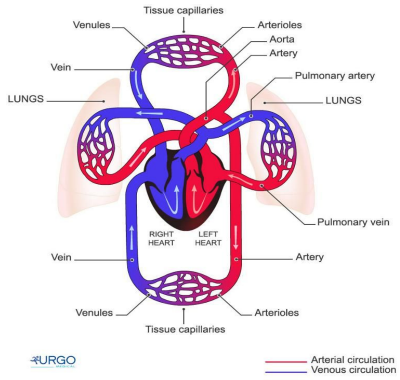
Exercise helps to improve health by:
Removing fatty deposits from the body.
Toning muscles and reducing fat.
Increasing fitness (ability to do high intensity activities for longer).

Enquiry Skills

- Fair testing
- Research

Key Vocabulary

circulatory system	The system in our bodies responsible for circulating blood through the body, that supplies nutrients and oxygen to the body and removes waste products such as carbon dioxide.
valve	Flaps that act as one way inlets for blood coming into a ventricle in the heart or outlets for blood leaving a ventricle in the heart.
blood vessel	Narrow tubes that blood flows through.
vein	A tube in the body that carries deoxygenated blood to the heart from the rest of the body.
artery	A tube in the body that carries oxygenated blood from the heart to the rest of the body.
ventricle	The part of the heart from which blood passes into the arteries.
respiration	Inhaling oxygen-rich air and exhaling air filled with carbon dioxide.
oxygenated	Contains oxygen.
deoxygenated	Does not contain oxygen
lifestyle	The way a person lives.



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