Knowledge Organiser - Year 6 - Science: Human Body

Keeping healthy needs us to understand that what we put in our bodies, affects our physical condition.

Key Vocabulary

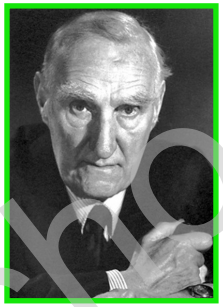
Arteries	Muscular-walled tubes that transport blood from the heart to other parts of the body.
Blood	Red liquid that circulates in arteries and veins, carrying oxygen to and carbon dioxide from tissues of the body.
Blood vessel	A tubular structure carrying blood through the tissues and organs. (Types: arteries, veins and capillaries)
Circulatory system	The system that circulates blood through the body, including the heart, blood vessels and blood.
Drugs	A substance which has a physiological effect when introduced into the body.
Heart	A four chambered muscular organ that pumps the blood through the circulatory system.
Lungs	Pair of organs situated within the ribcage where oxygen can pass into the blood and carbon dioxide be removed.
Minerals	A solid, naturally occurring inorganic substance essential for normal growth and nutrition.
Muscles	A band or bundle of fibrous tissues that have the ability to contract, producing movement in or maintaining positions of parts of the body.
Nutrients	A substance that provides nourishment essential for the maintenance of life and for growth.
Organs	Part of an organism that is typically self-contained and has a specific vital function (e.g. the heart and lungs)
Veins	Tubes forming part of the blood circulation system of the body, carrying mainly de-oxygenated blood towards the heart.
Vitamins	Organic compounds essential for normal growth and nutrition.

Working Scientifically

Explore ideas and raise different kinds of questions; recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. They should make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them; choose the most appropriate equipment to make measurements and explain how to use it accurately. They should decide how to record data from a choice of familiar approaches; look for different causal relationships in their data and identify evidence that refutes or supports their ideas. They should use their results to identify when further tests and observations might be needed; recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. They should talk about how scientific ideas have developed over time.

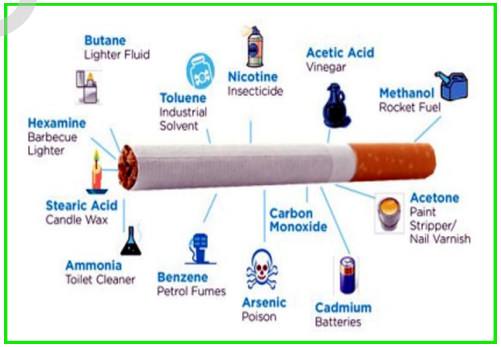
Key Question: Why is it important to be healthy?

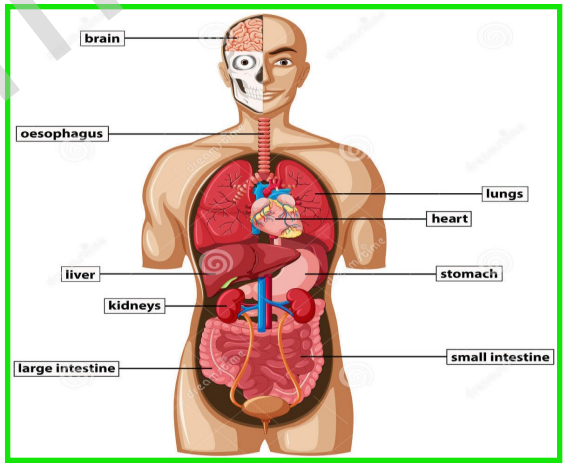
Red Blood cells - these are the transporter cells in the circulatory system. They carry oxygen to the cells and muscles and carry carbon dioxide back to the lungs to be expired from the body.



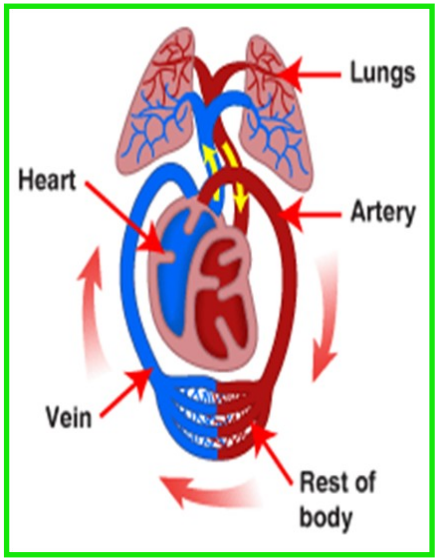
John Boyd Orr was the first scientist to show that there was a link between poverty, poor diet and ill health. In 1946, free Milk was given to all children at school because of his work.

We are going to study how your body deals with toxins and what your body needs, to carry out all of its vital functions. Have you heard of vitamins and minerals? Do we need to exercise?





The Human Body Organs: We have many systems at work in the body. We are going to look at three in detail; the digestive system, the respiratory system and the circulatory system. Which organs do these systems involve and where are those organs in your body? We will try some simple experiments to test your heart and lungs. (no surgery involved!)



The double circulatory system involves the heart (an organ), the blood vessels (tubes) and the blood cells.