

Year 6 – Animals Inc. Humans – Body Pump

What it looked like last year...

- Describe the changes as humans develop to old age.
- Describe the life processes of reproduction in some plants and animals.

What it looks like next year

- Reproduction in humans, including the structure and function of the male and female reproductive systems, menstrual cycle, gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle of the foetus through the placenta.
- The consequences of imbalances in the diet, including obesity, starvation and deficiency diseases.
- The effects of recreational drugs (including substance misuse) on behaviour, health and life processes.
- The structure and function of the gas exchange system in humans, including adaptations to function.
- The mechanism of breathing to move air in and out of the lungs.
- The impact of exercise, asthma and smoking on the human gas exchange system.

Vocabulary (definitions)

pulse - the beat resulting from the regular widening of an artery in the body as blood flows through it.

blood vessel - a series of tubes inside your body. They move blood to and from your heart.

arteries – tubes that carry blood away from the heart and transport oxygen and useful nutrients to the body's cells.

circulatory system - your body's delivery system

heart	pumps
blood	lungs
oxygen	carbon dioxide
nutrients	
water	
muscles	

Sequence of Learning

1. Investigate the human circulatory system.
2. Make a model of the heart to illustrate how it works.
3. Understand how blood transports oxygen and waste gases around the body.
4. Identify the contents of blood and describe their function.
5. Explain the function of valves, veins, arteries, and capillaries in the human circulatory system.

Cultural Capital

- To be able to identify and name the main parts of the circulatory system, and describe the functions of the heart, blood vessels and blood.
- To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
- To be able to describe the ways in which nutrients and water are transported within animals, including humans.

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- The real life knowledge that links is: grouping and classifying, using secondary sources for research, carry out comparative & fair tests.
- The jobs it can be used in are: Biologist, Medical Professional (doctors), Fitness Industry. Vet.

Principles of Teaching Science.

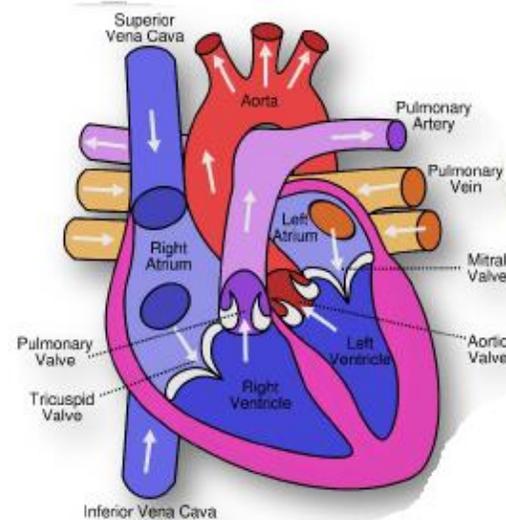
Exploring – when we look at how things work in the world

Questioning – when we question what will happen

Understanding – when we use scientific language to explain

Investigating – when we can explore and are hands on

Predicting – when we use our previous knowledge to say what we think will happen.



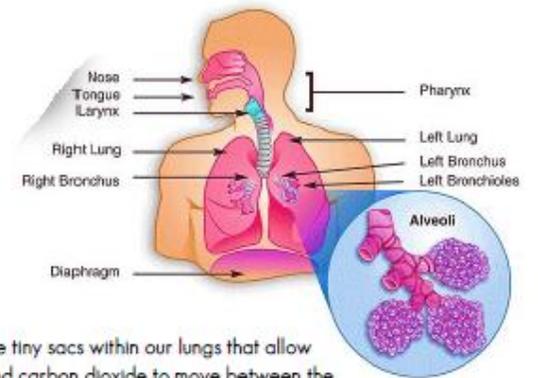
Blood Vessels

1) *Arteries* - Take blood AWAY from the heart to the body organs and tissues. When blood is pumped through these, you can feel your pulse.

2) *Veins* - Take blood TOWARDS the heart from body organs and tissues,

3) *Capillaries* - Tiny blood vessels which take the blood into organs and tissues.

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Alveoli are tiny sacs within our lungs that allow oxygen and carbon dioxide to move between the lungs and the bloodstream.