

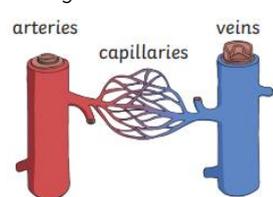
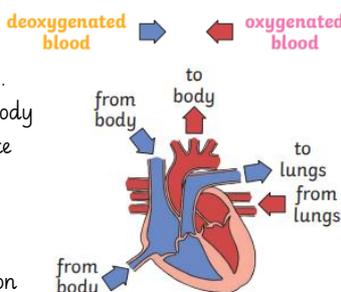
Topic:	Animals including Humans - What would a journey through your body look like?	Year:	6	Term:	Spring 2
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Key Knowledge

The Circulatory System:

The Heart:

The heart pumps blood to the lungs to get oxygen. It then pumps this oxygenated blood around the body. Mammals have hearts with four chambers. Notice how the blood that has come from the body is deoxygenated, and the blood that has come from the lungs is oxygenated again. The blood isn't actually red and blue: we just show it like that on a diagram.



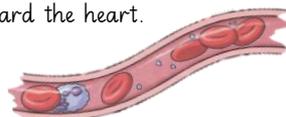
The Capillaries:

Capillaries are the smallest blood vessels in the body and it is here that the exchange of water, nutrients, oxygen and carbon dioxide takes place. Arteries carry oxygenated blood away from the heart. Veins carry deoxygenated blood toward the heart.

The Blood:



Blood transports: gases (mostly oxygen and carbon dioxide); nutrients (including water) and waste products. The liquid part of blood contains water and protein. This is called plasma.



Components of Blood:

Plasma is liquid. The other parts of your blood are solid. Red blood cells carry oxygen through your body. Platelets help you stop bleeding when you get hurt. White blood cells fight infection when you're sick.



The impact of diet, exercise, drugs:

Drugs, alcohol and smoking have negative effects on the body.

A healthy diet involves eating the right types of nutrients in the right amounts. Regular exercise: strengthens muscles including the heart muscle; improves circulation; increases the amount of oxygen around the body; releases brain chemicals which help you feel calm and relaxed; helps you sleep more easily; strengthens bones. *It can even help to stop us from getting ill.*

Famous Scientist: William Harvey



William Harvey was the first known physician to describe completely, and in detail, the systemic circulation and properties of blood being pumped to the brain and the rest of the body by the heart,

Key Vocabulary



Circulatory System – The blood circulatory system, is a system of organs that includes the heart, blood vessels, and blood which is circulated throughout the entire body of a human or other vertebrate.

Blood  – Blood is needed to keep us alive. It brings oxygen and nutrients to all the parts of the body so they can keep working.

Red Blood Cells  – Red blood cells have the important job of carrying oxygen.

White Blood Cells  – White blood cells are part of the germ-fighting immune system.

Plasma – Plasma is the liquid that makes up more than half of the blood in a human body. It carries all the platelets and red and white blood cells around the human body.

Platelets – Platelets are tiny blood cells that help your body form clots to stop bleeding.

Oxygenated – Oxygenated is something that is supplied, treated, or enriched with oxygen.

Deoxygenated – Deoxygenation is a chemical reaction involving the removal of oxygen.

Water Transportation – Circulated throughout the body in the form of body fluids such as blood. These perform various functions that keep us alive.

Nutrient Transportation – Nutrients are transported throughout your body through your blood via capillaries, tiny blood vessels that connect arteries to veins.

The Circulatory System:

