Animals including humans

Knowledge Organiser



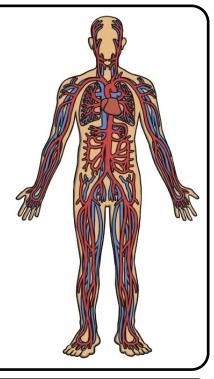
Vocabulary

Word	Meaning
arteries	blood vessels that carry oxygenated blood away from the heart
blood vessels	tube like structures that carry blood through the tissues and organs. There are three types of blood vessels – veins, arteries and capillaries
capillaries	blood vessels, which connect the arteries and veins. They are a link between both of these and the cells in your body that are going to use the oxygen or get rid of the carbon dioxide
circulatory system	a system which includes the heart, veins, arteries and blood that transports substances around the body
deoxygenated blood	blood where most of the oxygen has already been transferred to the rest of the body
heart	an organ that consistently pumps blood around the circulatory system
lungs	organs that take in oxygen from the air and excrete carbon dioxide from the body
oxygenated blood	blood that has more oxygen. It is pumped from the heart to the rest of the body
plasma	a liquid in your body that carries platelets, red blood cells and white blood cells around your body
platelets	stop you from bleeding and help to form a clot
red blood cells	carry oxygen around the body
veins	blood vessels that carry deoxygenated blood to the heart
white blood cells	form part of the immune system and help our bodies to fight infection

Circulatory System

The circulatory system can be thought of as a delivery system. There are five main parts of your circulatory system:

- The heart pumps blood around the body and keeps the circulatory system flowing.
- The lungs take in oxygen to help oxygenate our blood.
- Blood is used as a way of getting oxygen around the body, which all of the cells in your body need to survive.
 It is also used to transport hormones, nutrients and antibodies.
- The arteries are blood vessels, which transport oxygenated blood to all of the cells in our body.
- The veins are blood vessels that carries deoxygenated blood back to the heart, where they are then pumped to the lungs to be oxygenated again.



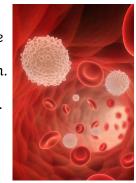
Blood is made up of four separate parts:

• **Red blood cells** – these carry oxygen through the body.

centre of our bones.

- White blood cells these form part of our immune system and help our bodies to fight infections. They are transported to any area of the body, which is trying to fight infection.
- **Platelets** these stop you from bleeding if the skin's barrier is broken. They clot (stick) together to plug the break in the skin. When the clot dries, this will form a scab that protects the healing skin underneath.
- **Plasma** this carries nutrients, hormones and proteins around the body.

Red blood cells, white blood cells and platelets are created in our bone marrow. This is a thick, spongey, jelly-like substance that is found in the



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Blood and Blood Vessels

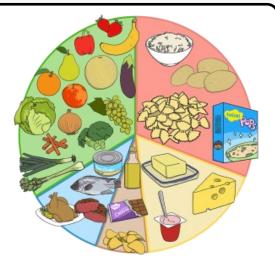
Major Organs Oxygenated blood Deoxygenated blood from the lungs enters the from the body enters. left atrium. Superior Vena Cava Pulmonary Artery (Left) Pulmonaru Artery (Right) Left Atrium Pulmonaru Veins Right Ventricle right trachea bronchus intercostal heart muscles bronchiole ribs air sacs diaphragm (alveoli)

Animals— including humans

Healthy Eating

A healthy lifestyle consists of eating a well-balanced diet and exercising regularly. If someone has a well-balanced diet, this means that they are eating a balance of foods from the different food groups. There are five categories of food:

- fats, spreads and oils
- protein
- dairy
- carbohydrates
- fruit and vegetables



If a person does not get a balance of these different food groups and leads an unhealthy lifestyle over a sustained period of time, this can have serious consequences on their health.

Extending your learning

5 things you could do at home to extend your learning:

- 1. Take a look inside real human bodies with a visit to the Body Worlds exhibition in central London.
- 2. Keep a heart rate journal—log what your heart rate is (in BPM) every half an hour for a whole day.
- 3. Create a healthy eating menu for you and your family for a week.
- 4. Visit the Science Museum in London to see the exhibits about the human body.
- 5. Create a model of the circulatory system using red and blue wool and other recycled items.

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