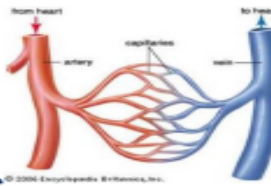


Lesson sequence

- To know about the main body parts and internal organs (skeletal, muscular and digestive system)
- Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
- To investigate which activity increases the heart rate the most.
- To describe the ways in which nutrients and water are transported within animals, including humans
- To recognise the impact of diet on the way bodies function.
- To recognise the impact of exercise and drua on the way bodies function



What will I know by the end of the unit?

<p>What is the circulatory system?</p>	<ul style="list-style-type: none"> The circulatory system is made of the heart, lungs and the 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. Nutrients, oxygen and carbon dioxide are exchanged via the capillaries. 
<p>Choices that can harm the circulatory system</p>	<ul style="list-style-type: none"> Some choices, such as smoking and drinking alcohol can be harmful to our health. Tobacco can cause short-term effects such as shortness of breath, difficulty sleeping and loss of taste and long-term effects such as lung disease, cancer and death Alcohol can cause short-term effects such as addiction and loss of control and long-term effects such as organ damage, cancer and death
<p>Why is exercise so important?</p>	<p>Exercise can:</p> <ul style="list-style-type: none"> tone our muscles and reduce fat increase fitness make you feel physically and mentally healthier strengthens the heart improves lung function improves skin

Prior Knowledge:

- Which things are living and which are not.
- Classification of animals (e.g. amphibians, reptiles, birds, fish, mammals, invertebrates)
- Animals that are carnivores, herbivores and omnivores.
- Animals have offspring which grow into adults.
- The basic needs of animals for survival (water, food, air)
- The importance of exercise, hygiene and a balanced diet.
- Animals get nutrition from what they eat.
- Some animals have skeletons for support, protection and movement.
- The basic parts of the digestive system.
- The different types of teeth in humans.
- Respiration is one of the seven life processes.
- The life cycle of a human and how we change as we grow.

Diagram - The Heart

- The **heart** is composed of four chambers; the **right atrium**, the **right ventricle**, the **left atrium** and the **left ventricle**.
- How often your heart pumps is called your **pulse**.

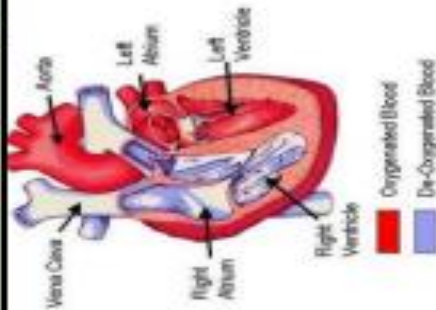
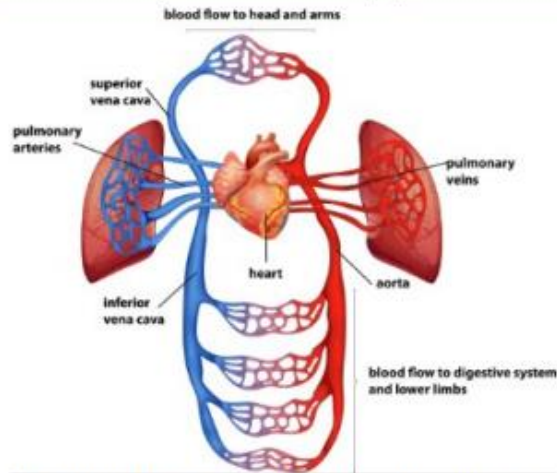


Diagram - The Circulatory System



1. The right **atrium** collects the **deoxygenated** blood from the body, **via** the **vena cava**. It sends the blood to the right **ventricle**.
2. The right **ventricle pumps** the **deoxygenated** blood to the **lungs**. Here the blood picks up **oxygen** and disposes of **carbon dioxide**.
3. The **lungs** send **oxygenated** blood back to the left **atrium** which pumps it to the left **ventricle**.
4. The left **ventricle** pumps the blood to the rest of the body, **via** the **aorta**.

aorta	the main artery through which blood leaves your heart before it flows through the rest of your body
arteries	a tube in your body that carries oxygenated blood from your heart to the rest of your body
atrium	one of the chambers in the heart
blood vessels	the narrow tubes through which your blood flows. Arteries, veins and capillaries are blood vessels .
capillaries	tiny blood vessels in your body
carbon dioxide	a gas produced by animals and people breathing out
circulatory system	the system responsible for circulating blood through the body, that supplies nutrients and oxygen to the body and removes waste products such as carbon dioxide .
deoxygenated	blood that does not contain oxygen
heart	the organ in your chest that pumps the blood around your body
lungs	two organs inside your chest which fill with air when you breathe in. They oxygenate the blood and remove carbon dioxide from it.
nutrients	substances that help plants and animals to grow
organ	a part of your body that has a particular purpose
oxygen	a colourless gas that plants and animals need to survive
oxygenated	blood that contains oxygen
pulse	the regular beating of blood through your body. How fast or slow your pulse is depends on the activity you are doing.
respiration	process of respiring; breathing ; inhaling and exhaling air
veins	a tube in your body that carries deoxygenated blood to your heart from the rest of your body
vena cava	a large vein through which deoxygenated blood reaches your heart from the body
ventricle	one of the chambers in the heart
via	through