

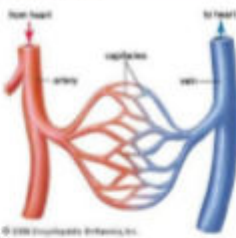
**What should I already know?**

- 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.

**What will I know by the end of the unit?**

What is the circulatory system?

- 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**.



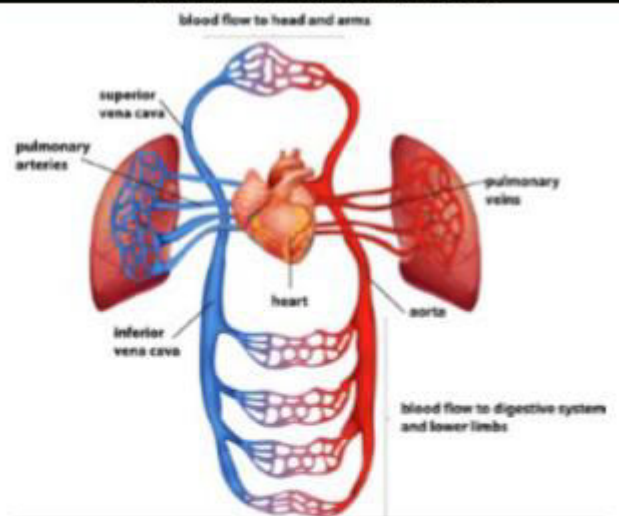
Choices that can harm the circulatory system

- 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

Why is exercise so important?

- Exercise can:
- tone our muscles and reduce fat
  - increase fitness
  - make you feel physically and mentally healthier
  - strengthens the **heart**
  - improves **lung** function
  - improves skin

**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**.

**Vocabulary**

aorta	the main <b>artery</b> through which blood leaves your <b>heart</b> before it flows through the rest of your body
arteries	a tube in your body that carries <b>oxygenated</b> blood from your <b>heart</b> to the rest of your body
atrium	one of the chambers in the <b>heart</b>
blood vessels	the narrow tubes through which your blood flows. <b>Arteries, veins</b> and <b>capillaries</b> are <b>blood vessels</b> .
capillaries	tiny <b>blood vessels</b> 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 <b>nutrients</b> and <b>oxygen</b> to the body and removes waste products such as <b>carbon dioxide</b> .
deoxygenated	blood that does not contain <b>oxygen</b>
heart	the <b>organ</b> in your chest that <b>pumps</b> the blood around your body
lungs	two <b>organs</b> inside your chest which fill with air when you breathe in. They <b>oxygenate</b> the blood and remove <b>carbon dioxide</b> 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 <b>oxygen</b>
pulse	the regular beating of blood through your body. How fast or slow your <b>pulse</b> 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 <b>deoxygenated</b> blood to your <b>heart</b> from the rest of your body
vena cava	a large <b>vein</b> through which <b>deoxygenated</b> blood reaches your <b>heart</b> from the body
ventricle	one of the chambers in the <b>heart</b>
via	through

## Elsecar Holy Trinity - Science

Topic: Animals including Humans

Year: 6

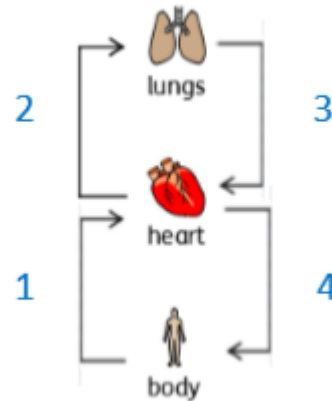
Strand: Biology

Question 1: The heart, blood vessels and lungs make up the...	Start of unit:	End of unit:
digestive system		
circulatory system		
skeletal system		
muscular system		

Question 2: Which one of these is <b>not</b> an organ?	Start of unit:	End of unit:
heart		
lungs		
blood		

Question 3: The most effective way to show the change in pulse rate over time is by using a...	Start of unit:	End of unit:
picture		
bar chart		
pie chart		
line graph		

Question 7: Explain what is happening at each stage of the process.



1	
2	
3	
4	

Question 8: Which of these can harm our bodies? Tick two.	Start of unit:	End of unit:
smoking		
all drugs		
alcohol		
exercise		

Question 9: The function of the blood is to provide the body with...(tick three)	Start of unit:	End of unit:
nutrients		
water		
carbon dioxide		
oxygen		

Question 6: Tick TWO boxes below to show the two	Start of unit:	End of unit:
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Question 4: You are investigating which exercise yields the highest heart rate. How can you ensure a fair test? Tick two.	Start of unit:	End of unit:
treat everybody the same		
measure the same subject's pulse before, during and after each exercise.		
ensure the starting heart rate		

Question 10: Arteries, veins and capillaries are examples of...	Start of unit:	End of unit:
blood		
blood vessels		
blood types		
nutrients		