

Willerby Carr Lane Primary School - Science

Topic: Animals including Humans

Year: 6

Strand: Biology

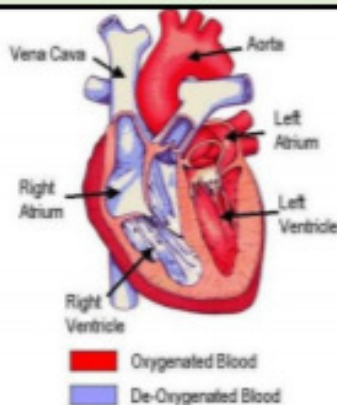
What should I already know?

- How to be healthy by eating well and staying clean.
- Know the names for the main parts of the body.
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
- Animals, including humans, have offspring which grow into adults.
- Know the basic needs of animals, including humans, for survival (water, food and air).
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.
- Animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food, they get nutrition from what they eat.
- Humans and some other animals have skeletons and muscles for support, protection and movement.
- Describe the simple functions of the basic parts of the digestive system in
- Identify the different types of teeth in humans and their simple fun
- Construct and interpret a variety of food chains, identifying producers, predators
- Describe the changes as humans develop to old age.
- The changes that happen as humans develop to old age
- The gestation period of different animals

What will I know by the end of the unit?

Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	<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. • The heart is composed of four chambers: the right atrium, right ventricle, left atrium and left ventricle. • If you were to lay out all of the arteries, capillaries and veins in one adult, end-to-end, they would stretch about 60,000 miles (100,000 kilometres)
Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	<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
Describe the ways in which nutrients and water are transported within animals, including humans	<ul style="list-style-type: none"> • Nutrients are absorbed into the blood in the small intestine. • There are tiny hair-like villi that help this process happen. • The nutrients are carried in the blood to the different parts of the body that need them

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**.

Vocabulary	
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

Investigate!

- How does your pulse change with exercise? What is the most efficient way of presenting this data?
- Which exercise produces the fastest pulse? How would you make this a fair test?

Common misconceptions

Some children may think:

- your heart is on the left side of your chest
- the heart makes blood
- the blood travels in one loop from the heart to the lungs and around the body
- when we exercise, our heart beats faster to work the muscles more
- some blood in our bodies is blue and some blood is red
- we just eat food for energy
- all fat is bad for you

