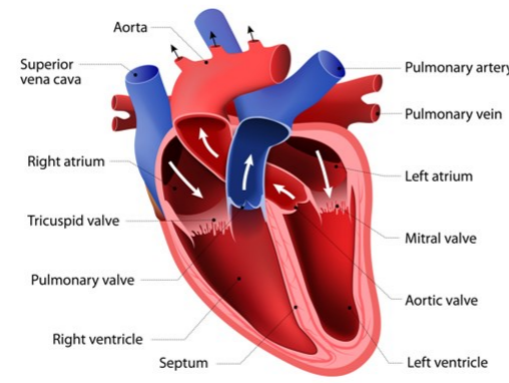


Year 6 Science Spring 1 Unit Animals Including Humans



Progression of Knowledge

Unit	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Animals, including humans	<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</p> <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</p>	<p>Notice that animals, including humans, have offspring which grow into adults</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p>	<p>Identify that 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</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</p>	<p>Describe the simple functions of the basic parts of the digestive system in humans</p> <p>Identify the different types of teeth in humans and their simple functions</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey</p>	<p>Describe the changes as humans develop to old age</p>	<p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans</p>

Key Scientific Skills	Year 6 Animals, including humans
Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	
Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	
Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	
Use test results to make predictions to set up further comparative and fair tests	
Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations	
Identify scientific evidence that has been used to support or refute ideas or arguments	

Rocket Words

	circulatory system	the system that controls the flow of blood around the body
	BPM	beats per minute measuring heart rate
	diet	the kind of food an animal usually eats
	pulse	the rhythmical throbbing of the arteries as blood is pumped through them
	oxygenated	containing oxygen
	deoxygenated	not containing oxygen
	atrium	the upper chambers of the heart
	ventricle	the lower chambers of the heart
	vessel	tube which circulates the blood through the body
	valve	flaps which open and close to allow blood flow
	diffusion	diffusion is the movement of all liquids and gases
	osmosis	osmosis is the movement of water only

Looking After Our Heart

To keep our **heart** and body healthy, we need to:

- eat a balanced diet (not too much sugar or fat);
- exercise regularly;
- drink approximately 2 litres of water a day;
- limit alcohol intake, in adults;
- get approximately 8 hours of sleep.

Drugs, including alcohol, can cause liver damage, poor sleep, high blood pressure, and different types of cancer. Drugs can be classified into four groups – painkillers, stimulants, depressants and hallucinogens.

Lesson Sequence

1. Understand the function of the heart and its role in the circulatory system
2. Identify and compare blood vessels
3. Explore blood
4. Learn how the body transports water and nutrients
5. Investigate what affects your heart rate
6. Learn about the impact of drugs and alcohol on the body

The Heart

The **heart** pumps **blood**, carrying nutrients and oxygen, around every part of the body.

The red vessels are **arteries** and the blue vessels are **veins**. **Arteries** have thick, muscular walls and carry **oxygenated** blood from the **heart** to the rest of the body. **Veins** carry **deoxygenated** blood back to the heart and have thinner walls. **Capillaries** are microscopic vessels which link the veins and arteries together.

Red blood cells carry **oxygen**. **White blood cells** fight infection as part of the immune system. **Platelets** help to clot (thicken) the blood and form a scab. **Plasma** is the fluid part of the blood, which transports