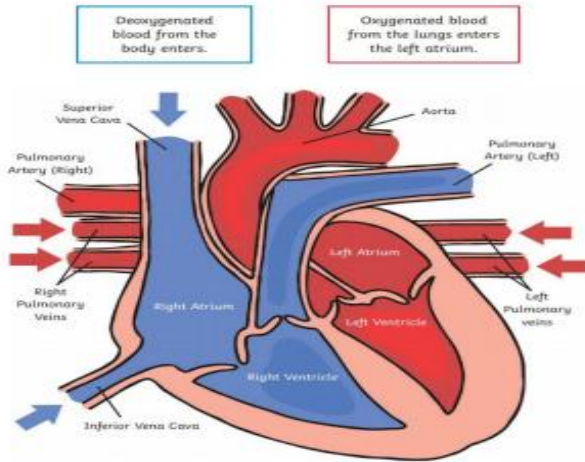


Autumn 2 Year 6 Science Knowledge Organiser

Animals Including Humans

Subject specific Vocabulary		Images/Diagrams/Maps	Important Knowledge
Arteries	Blood vessels that carry blood away from the heart	 Writing/Provision/ Enrichment opportunities	<u>The Heart</u> It is about the size of your fist and located in the front and middle of your chest. It works as a pump forcing blood around the body. The heart is mainly muscle and it works from the moment you are born until death. It works harder when you exercise. Deoxygenated blood flows into the heart from the body through veins. This blood is pumped out to the lungs through the pulmonary artery. Blood returns to the heart through the pulmonary vein. The oxygenated blood is then pumped out of the heart through the aorta. The blood travels around the body delivering oxygen and nutrients to the organs.
Blood	This is pumped by the heart and supplies the body with nutrients and oxygen.		
Blood Vessels	The narrow tubes through which your blood flows include the arteries, veins and capillaries.		
Capillaries	Microscopic blood vessels found in the muscles and lungs.		
Carbon Dioxide	Is a gas produced by animals and people breathing out.		
Heart	The organ in your chest that pumps the blood around your body.		
Lungs	Two spongy organs inside the chest which fill with air when you breathe in.		
Oxygen	A colourless gas that exists in large quantities in the air. All plants and animals need oxygen in order to live.		
Veins	Blood vessels that carry blood to the heart.		
		Create an informative poster about the heart and how it works using scientific language Make your own blood!	
Scientific Enquiry Skills		Working Scientifically Skills	
      		    	

Presentation	Working Scientifically and Scientific Enquiry Assessment		
	Present results in a variety of ways to help in answering questions. Children are able to explain in more basic terms how the heart works using some scientific language.	Can use scientific diagrams, models and labels to explain processes using scientific vocabulary.	Can use scientific diagrams, models and labels to explain processes with scientific vocabulary as well as including own scientific knowledge and additional information from secondary sources.
	Children can take repeat measurements. They may need support recording multiple tests and finding average. They can use a ruler to measure accurately.	Taking measurements, using a range of scientific equipment with increasing accuracy and precision. Can take repeat readings where appropriate. Can create their own scale to interpret data.	Children can create a comprehensive way of capturing data. They can draw their own table with independence and include repeat measurements where they can take an average.
	They use scientific illustrations and models to discuss, communicate and justify their ideas. They can use some scientific language when explaining concepts.	Can use labelled diagrams to support their explanation of how blood is composed. They can use scientific vocabulary when explaining and own scientific knowledge.	Children can give a comprehensive write up about the components of blood, its properties and how it helps the body. They use accurate clear labelled diagrams to support.
	Children can use diagrams and illustrations to discuss the process. Children can recall some of the demonstration but may not be able to coherently link with the correct scientific words without support.	Can use models and labelled diagrams to support their explanation of how nutrients and water is transported. Children may pose further questions which can be explored to extend the enquiry	Children can use detailed diagrams to support their scientific write up. They use scientific vocabulary and research to explain.
	Can set up a fair or comparative test and explain which variables need to be controlled and changed. Can plan an enquiry with some support with some understanding of how to answer the question.	Children can answer questions, controlling variables where necessary independently. They can identify a range of factors which may affect their investigation. They can plan with independence and understand how to answer questions raised.	Children can work independently planning a test and recording results. They can identify causal relationships and answer questions with more precision and accuracy.
	Children can use some of their observations when explaining the effects of smoking and drugs on the body. They can use some scientific vocabulary to explain.	Children can observe the effects of smoking and can explain using pictures, diagrams and scientific vocabulary to share the effect such actions have on the body.	Children can use research and own observations to relate to real life effects of smoking and drugs on the body. They use scientific vocabulary correctly when explaining.