

Unit plan – Year 6 Summer 1 (Animals, including humans)

Year 6 Summer 1		Subject Skill (Learning Objective)	Subject Knowledge	Pedagogical Content (how you will teach)
Week 1 6.5 hours	Animals, including humans. Science Week	<p>I am learning to identify and name the main parts of the human circulatory system</p> <p>I am learning to describe the functions of the blood, blood vessels and heart.</p> <p>I am learning to describe the ways in which nutrients and water are transported within animals, including humans</p> <p>I am learning to recognise the impact of diet, exercise, drugs and lifestyle on the way our bodies function.</p> <p>I am learning to plan different types of scientific enquiry, including recognising and controlling variables where necessary</p> <p>I am learning to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I am learning to record data using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>I am learning to report findings from enquiries, including conclusions, causal relationships and explanations of results</p>	<p>I know the main parts of the human circulatory system.</p> <p>I know how the functions of the heart, blood vessels and blood.</p> <p>I know the impact diet, exercise, drugs and lifestyle can have on health.</p> <p>I know how water and nutrients are transported in animals, including humans.</p> <p>I know different types of scientific enquiry.</p> <p>I know what a variable is.</p> <p>I know how to control variables.</p> <p>I know a range of equipment I can use to measure accurately.</p> <p>I know how to use diagrams, classification keys, tables, scatter graphs, bar and line graphs to record data.</p> <p>I know different ways I can report my findings (reports, graphs, tables etc).</p> <p>I know what a conclusion is.</p> <p>I know how to draw a conclusion from my findings.</p> <p>I know what cause and effect means.</p> <p>I know what a causal relationship is.</p> <p>I know and can use a range of scientific vocabulary in my written work and when speaking.</p>	<p>Lesson 1-2 What is the circulatory system?</p> <p>Explain that we are going to be learning about the circulatory system. <i>Which other systems in the body do you know?</i> Children should recall digestive system. Explain that like the digestive system, the circulatory system is a process that happens in our body to provide us with something we need to survive: oxygen.</p> <p>Explain that there are three main parts of the circulatory system: the heart, the blood and the blood vessels. <i>What do you know about these already?</i> Explain that the circulatory system is a very complex system so we will look at each part carefully to help us understand how the system works as a whole.</p> <p>Introduce KQ: What is the function of the blood cells?</p> <p>Begin with the blood vessels. Use the short video here (https://www.bbc.co.uk/bitesize/topics/zcyycdm/articles/z9w9r2p) to help explain that blood is made up of different components. Some of the main components of blood are red blood cells, white blood cells and plasma.</p> <p>Use the information sheet to support with explaining this.</p> <p>Children to create a pie chart using the formula given to show the blood cells in the body. Then, next to each section, write the function of each of the different types of blood cells.</p> <p>Introduce KQ: What is the function of the blood vessels?</p> <p>Revisit the link above and watch the video about blood vessels. Explain that the blood vessels are: tubes within the human body which carry blood. Blood vessels include arteries and veins. Arteries carry blood away from the heart, and veins bring it back. Blood vessels are thick and wide near the heart, but branch off into smaller ones called arterioles, venules and capillaries.</p> <p>Chn to complete the diagram.</p> <p>Lesson 3- What is the function of the heart?</p> <p>Recap blood and blood vessels. Revisit the link above to watch the video about the heart. Using the PPT, explain the importance of the heart.</p> <p>Children to then in groups try to order the blood flow sorting cards. Work through together and use the diagram of the heart on the PPT to help describe what happens.</p> <p>Children to complete the heart labelling activity. Higher ability can also name the different parts of the heart.</p> <p>Complete the lesson by going outside and using cones and signs to create a real life demonstration of the circulatory system. (Instructions in resource folder). Take a photo and a post it to show that children have been able to demonstrate the function of all different parts of the circulatory system.</p> <p>Lesson 4 How are nutrients and water transported within animals including humans?</p> <p>Recap the circulatory system. <i>What does our blood transport around our body? Does it just transport oxygen?</i> Discuss water and nutrients <i>How else is water and nutrients transporter around the body?</i></p> <p>In their books, children to answer the question: how are nutrients and water transported within animals. They should use key vocabulary.</p> <p>Introduce key question: How does diet, exercise, drugs and lifestyle impact on the way our bodies function?</p> <p>Share the food images on tables. Ask the children to think about what effect these foods may have on the human body, referring back to nutrients.</p> <p>Children to use the effects of diet information sheet and the alcohol and smoking sheet to help them create a leaflet promoting positive diet and lifestyle choices. They can also use ipads to do their own research.</p> <p>Lesson 5- How does exercise impact the way our body functions?</p> <p>Recap circulatory system and its importance. Discuss exercise and ask the children to think about why exercise is good for our bodies. Explain that we will investigate the effect exercise has on our circulatory system.</p> <p>Follow the investigation in the resource folder.</p> <p>Conclude by discussing the importance of exercise in a healthy life style. Children may want to revisit their leaflets from the previous day and add in the importance of exercise.</p>

Vocabulary

Plan, variables, measurements, accuracy, precision, repeat, readings, conclusions, causal relationship, explanations, degree of trust, oral and written display and presentation. scientific diagrams, labels, line graphs, quantitative, blood, blood vessels, arteries, veins, Capillaries, heart, chambers, ventricles, right, left, aorta, pumps, Oxygen, carbon dioxide, lungs, nutrients, water, Circulatory system, Nutrients, exercise, diet, drugs, Lifestyle, addiction, disease, medicine, alcohol, cigarettes.

Resources.

See resource folder