

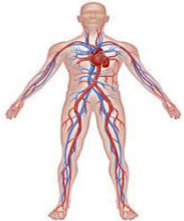
BILSTON CHURCH OF ENGLAND PRIMARY



MEDIUM TERM PLANNING

Subject	Topic/Key Question	Year Group	Term	Time Allocation
Science	Body Pump	6	Summer 1	12 hours +

Lesson Sequence	Time Allocation	Key Question/WALT	Teaching Activities	Resources
Lesson 1	2 hours	<p>To understand living things and humans.</p> <p>To understand specific body systems.</p>	<p>Do the children know which body systems humans are made up of? Allow time for discussion in groups. Share ideas. Explain that the focus of this lesson will be the Skeletal System, Muscular System and Digestive System. Work through each system with the children sharing and building on prior knowledge.</p> <p>Skeletal: Support, Movement, Protection and the production of blood cells</p> <p>Muscular: The muscular system is responsible for the movement of the human body. Attached to the bones of the skeletal system are about 700 named muscles that make up roughly half of a person's body weight. Each of these muscles is a discrete organ constructed of skeletal muscle tissue, blood vessels, tendons, and nerves.</p>	<p>Collins Snap Science Lesson 1</p> <p>Screenshots printed for the children to label</p>

			<p>Digestive: Your digestive system breaks down the food you eat into nutrients such as carbohydrates, fats and proteins. They can then be absorbed into your bloodstream so your body can use them for energy, growth and repair. Unused materials are discarded as faeces (or stools).</p> <p>The children will label and describe the main function of each system.</p>	
Lesson 2	2 hours	<p>To understand living things and humans.</p> <p>To understand specific body systems.</p>	<p>Which body system is responsible for transporting blood around our body? What do they already know about the circulatory system? What organs are involved? Work through the slideshow. Introduce the heart and the lungs. What purpose do they have within the circulatory system?</p> <p>Watch the video of the heart and use this to draw and label the circulatory system. The children will need to create a key and produce a written explanation based on the slideshow and video clip.</p>	<p>Slideshow on the Circulatory System (Twinkl)</p> <p>Collins Snap Science Lesson 2</p> <p>Image of the circulatory system to display.</p> 
Lesson 3	2 hours	<p>To understand living things and humans.</p> <p>To identify the main functions of the heart.</p>	<p>Recap on lesson last week. What organs feature in the circulatory system? What is the heart and how does it work? Work through the slideshow and the video clips. The children will make notes. They will then take turns with each table doing a short presentation on what they have learnt.</p>	<p>Collins Snap Science Lesson 2</p> <p>Twinkl KS2 How the Circulatory System Works teaching pack.</p>

			Main task: Label and colour code the heart. Write a description of how it works.	
Lesson 4	2 hours	<p>To understand living things and humans.</p> <p>To understand how exercise affects our heart rate.</p> <p>To work scientifically</p>	<p>What is the function of the heart? Recap - what can you remember about the heart?</p> <p>What creates the sound of our heartbeat?</p> <p>Why is important to keep our heart healthy?</p> <p>How can we do this? How could we carry out an experiment to show the effects of exercise on the heart?</p> <p>What do you think would affect our heart rates more? Running, jumping or skipping?</p> <p>Think about: Prediction, variables, recording results and concluding. Carry out the experiment</p>	<p>Slideshow – How does exercise affect our heart rate?</p> <p>Stopwatches/timers</p>
Lesson 5	2 hours +	<p>To understand living things and humans.</p> <p>To identify the contents of blood and describe their function</p>	<p>What do we know about the blood? Discuss in table groups. Share ideas and create a shared list.</p> <p>What do these do?</p> <p>Red blood cells</p> <p>White blood cells</p> <p>Plasma</p> <p>Platelets</p> <p>The children will then complete a fact file including statistics (pie chart) about the blood.</p> <p>Additional session: Why donate blood?</p>	<p>Slideshow: The Blood</p> <p>Collins Snap Science: Lesson 3 animation</p> <p>Lesson 4: Blood facts</p> <p>Lesson 4: Video – why donate blood?</p> <p>Science day lesson resources</p> <p>Video clips – donating blood – good causes</p>

			<p>Look at case studies about why people may need a blood transfusion. Donating blood does and can save lives.</p> <p>Show the children features of persuasive writing and a WAGOLL. They will then write a persuasive text describing why you should become a blood donor.</p>																									
Lesson 6	1 hour	<p>To understand living things and humans.</p> <p>To understand what valves and blood vessels do</p>	<p>ENQUIRE:</p> <p>Remind children that they have already found out about how the heart works and what is in blood. Today they are going to find out more about the parts of the circulatory system called valves and the different types of blood vessels. Their challenge is to organise the information they find into concept sentences or a concept map of the human circulatory system. The challenges are differentiated by whether children are required to create separate sentences or link several ideas in a concept into a complete map, and the technical level of the words used. All children need to include the words 'valves', 'arteries', 'veins' and 'capillaries' in the concept sentences of maps.</p> <p>Challenge 1: Children create concept sentences to show what they know about parts of the human circulatory system</p> <p>Ask the children to cut up the words from the Word bank: Challenge 1 (Resource sheet 2) and</p>	<p>Collins Connect Snap Science Lesson 5</p> <p>Twinkl image - blood vessel</p> <p>Twinkl KS2 How the Circulatory System Works teaching pack.</p> <table border="1" data-bbox="1570 938 1974 1114"> <tr> <td>heart</td> <td>vein *</td> <td>flow</td> </tr> <tr> <td>vessels</td> <td>valve</td> <td>artery*</td> </tr> <tr> <td>blood</td> <td>oxygen</td> <td>capillary*</td> </tr> <tr> <td>lungs</td> <td>body</td> <td>breathe</td> </tr> <tr> <td>types</td> <td>pumps</td> <td>through</td> </tr> <tr> <td>valves</td> <td>made of</td> <td>thick</td> </tr> <tr> <td>thin</td> <td>ventricle</td> <td>left</td> </tr> <tr> <td>right</td> <td></td> <td></td> </tr> </table>	heart	vein *	flow	vessels	valve	artery*	blood	oxygen	capillary*	lungs	body	breathe	types	pumps	through	valves	made of	thick	thin	ventricle	left	right		
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use some of them to form a sentence. They should ask someone to look at it to see if they agree. Next they need to look at the words they have left and form as many more sentences as they can. They can add other words of their own and use any twice or more. Encourage them to use all the words. They must use the words with a *. If they do not know what a word means they should look it up in a textbook or online.

Once they have finished, tell them to copy their sentences into their books, underlining the new words they have learned today.

Challenge 2: Children create concept sentences to show what they know about the main parts of the human circulatory system

Ask the children to cut up the Word bank: Challenge 2 (Resource sheet 3) and use some of them to form a sentence. They should ask someone to look at it to see if they agree. Next they need to look at the words they have left and form as many more sentences as they can. They can add other words of their own and use any two or more times. Encourage them to use all the words. They must use the words with a *. If they do not know what a word means they should look it up in a textbook or online.

Once they have finished, ask them to copy their sentences into their books, underlining the new

			<p>words they have learned today and indicating where they found the information.</p> <p>Challenge 3: Children create a concept map to show what they know about parts of the human circulatory system and how they link together</p> <p>Ask the children to cut up the words from the Word bank: Challenge 3 (Resource sheet 4) and arrange them to form a concept map, making links between the nouns with arrows and verbs. They should ask someone to look at it to see if they agree. They can add other nouns of their own and use any two or more times. Encourage them to use all the words. They must use the words with a *.</p> <p>If they do not know what a word means they should look it up in a textbook or online.</p> <p style="text-align: center;"><i>Ask: What word should go at the centre of your concept map? Which words link directly to it? Which do they link to? Which verbs will you need?</i></p>	
Lesson 7	1 hour	<p>To understand living things and humans.</p> <p>To understand what happens to</p>	<p>EXPLORE:</p> <p>Pose a series of questions for children to discuss, using slide 1 of Slideshow 1, Wonderful water, as a visual.</p>	Collins Connect Snap Science Lesson 6 Slideshow

the water in our bodies

Ask: *Why do we need water? Is all water the same? What happens if we do not get enough water? What happens if we get too much?*

Encourage children to think, pair and share their ideas.

Show slide 2, which provides some exemplar answers. Ask children to compare their answers with these. Discuss each of the ways that water is used in human bodies to check that children understand the descriptions.

Table task 1: Children work in pairs to find out about how water is transported and used in humans and in an animal that lives in a desert

Ask: *How is water transported in humans? How is water taken in? What do humans use it for? How do human bodies get rid of water they don't need? How is this different to an animal that lives in a desert?*

Ask them to include at least one use of water in humans in their presentations.

Table Task 2: Children work independently to find out about how water is transported and used in humans and in an animal that lives in a salt water environment

Wonderful water



Key information:

Key information:
Seawater is too salty for humans and most land animals, but animals that live near or in salt water have adapted so that they can pump out the extra salt while keeping their salt levels in balance.

animals they kill and eat.

Fact sheet

Ask: How is water transported in humans? How is water taken in? What do humans use it for? How do human bodies get rid of water they don't need? How is this different to an animal that lives in salt water?

Ask them to include at least one use of water in humans in their presentations.

Table Task 3: Children work independently to find out about how water is transported and used in humans, and identify an animal where the transportation of water is different

Ask: How is water transported in humans? How is water taken in? What do humans use it for? How do human bodies get rid of water they don't need? Can you identify and find out about an animal that has adapted to live in an environment where the water supply is different to ours?

Ask them to include at least one use of water in humans in their presentations.