

Unit Animals including Humans - Year 6: Scientific Enquiry Overview

Lesson:	Objectives:	Scientific Enquiry: (All investigations involve Researching using secondary sources)	Equipment:
<p>1. What is the circulatory system?</p> <p>Making a model pumping heart.</p>	<ol style="list-style-type: none"> 1. Know what the circulatory system does. 2. Identify the main parts of the heart. 3. Know the importance of cardiac muscle. 	<p>Comparative testing, Observing over time: Pupils compare two distinct situations - one where the balloon valve is attached and one where it is not. They observe their model over time.</p>	<p>A large balloon, beaker or cup, two bendy straws, scissors, tape, water, red food colouring.</p>
<p>2. How does blood get around the body?</p> <p>Interpreting a blood pressure reading table.</p>	<ol style="list-style-type: none"> 1. Know the role of blood vessels. 2. Describe the structure of blood vessels. 3. Explain how blood pressure is generated. 	<p>Pattern seeking: Pupils look for patterns or relationships in the blood pressure data provided and then relate them to the symptoms mentioned in the blood pressure reading chart.</p>	<p>Table with blood pressure readings, blood pressure reading chart.</p>
<p>3. What is in the blood?</p> <p>Creating a model to represent blood components.</p>	<ol style="list-style-type: none"> 1. Identify the components of blood. 2. Know the function of blood components. 3. Create a model representing blood components. 	<p>Identifying, classifying and grouping and Observing over time: Pupils create a model to classify and group different blood components. They observe the functioning of their model over time to relate it to real-life blood components.</p>	<p>Variety of materials to represent blood components. This might include: Red pom-poms or red craft beads for red blood cells, White pom-poms or white craft beads for white blood cells, Yellow yarn or jelly (set in a container) for plasma, Small platelets (pieces of paper or small beads) for platelets, large clear container or bowl to combine the materials and represent a blood vessel.</p>
<p>4. How do we get water and nutrients?</p> <p>Sequencing and colouring the digestion and circulation process.</p>	<ol style="list-style-type: none"> 1. Recall the role of the digestive system. 2. Know how the blood transports nutrients. 3. Explain the effects of lack of nutrients. 	<p>Identifying, classifying and grouping: Pupils identify and classify various stages of digestion and circulation, group them based on where they occur, and then use colour coding for easier understanding.</p>	<p>Statements about digestion and circulation printed on separate strips of paper, coloured pencils or markers (blue and red)</p>
<p>5. How can we keep our heart healthy?</p> <p>Recording and comparing heart rates before and after exercise.</p>	<ol style="list-style-type: none"> 1. State some circulatory system illnesses. 2. Describe some causes of illness. 3. Explain how we can keep our circulatory system healthy. 	<p>Comparative testing: Pupils compare the dependent variable of heart rate before and after exercise.</p>	<p>Stopwatch or clock with a second hand, Notepad and pen for recording heart rate</p>
<p>6. What are some blood disorders?</p> <p>Researching and creating a poster about a blood disorder.</p>	<ol style="list-style-type: none"> 1. Recall blood components. 2. Describe disorders of the blood. 3. Explain how different components are affected by blood disorders. 	<p>Researching using secondary sources: Pupils research a specific blood disorder and present their findings in a poster/ using the template.</p>	<p>Booklet as information source about blood disorders, Poster paper or large sheet of paper, Drawing materials (coloured pencils, markers), Writing materials (pens, pencils)</p>