

<p><b>Year Six</b></p>	<p>Number: Place Value, 4 Operations, Fractions, Decimals &amp; Percentages</p>	<p>Number: Algebra Geometry: Shape Geometry: Position &amp; Direction</p>	<p>Measures: Conversions Measures: Perimeter, Area &amp; Volume</p>	<p>Statistics</p>
<p><b>Animals Inc. Humans</b></p> <ul style="list-style-type: none"> <li>-identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</li> <li>-recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</li> <li>-describe the ways in which nutrients and water are transported within animals, including humans.</li> </ul>	<ul style="list-style-type: none"> <li>-Calculate the percentage of the body that is blood, convert this into decimals and fractions.</li> <li>-Investigate the impact of exercise on the body, how does heart rate change when we exercise? What type of exercise has the most impact on heart rate?</li> </ul>	<ul style="list-style-type: none"> <li>- Investigate the direction of travel of the blood through the heart and around the body.</li> </ul>	<ul style="list-style-type: none"> <li>-Convert the amount of blood in the body from millilitres, centilitres and litres.</li> </ul>	<ul style="list-style-type: none"> <li>-Create a line graph to show how the duration of exercise affects the breathing rate or heart rate.</li> </ul>
<p><b>Living Things and their Habitats</b></p> <ul style="list-style-type: none"> <li>-describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</li> <li>-give reasons for classifying plants and animals based on specific characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>-Calculate the difference between the number of each living things in different habitats. Explore why there are more or less in certain areas, does this support or refute research?</li> </ul>			<ul style="list-style-type: none"> <li>- Collect data about the living things in a certain habitat i.e. school field</li> <li>- Use Venn and Carroll diagrams to sort and classify plants in a certain habitat.</li> </ul>
<p><b>Light</b></p> <ul style="list-style-type: none"> <li>-recognise that light appears to travel in straight lines</li> <li>-use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</li> <li>-explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes</li> <li>-use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</li> </ul>		<ul style="list-style-type: none"> <li>- Investigate how changing the angle of the torch from the object changes the shadow.</li> </ul>	<ul style="list-style-type: none"> <li>-Measure how the size of the shadow changes as an object moves away from a light source. Write in cm and mm. Convert to imperial units of measure for extra challenge.</li> <li>- Measure how the area of a shadow changes.</li> </ul>	<ul style="list-style-type: none"> <li>- Investigate the relationship between light sources, objects and shadows. Display the finding as a line graph.</li> </ul>
<p><b>Electricity</b></p> <ul style="list-style-type: none"> <li>- associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</li> <li>-compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers &amp; the on/off position of switches.</li> <li>-use recognised symbols when representing a simple circuit in a diagram.</li> </ul>				<ul style="list-style-type: none"> <li>- Change the voltage across a circuit by adding more batteries and investigate how this effects components such as lamps, buzzers and motors.</li> <li>Plot this on a line graph to look for relationships.</li> </ul>

**Evolution & Inheritance**

*-recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago*  
*-recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents*  
*-identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.*

- Connect BC time to the concept of negative numbers.  
- Apply knowledge of 6 digit numbers to support the ideas of how many years ago fossilised creatures lived.

- Types of beaks investigation. Bar chart to represent findings.  
<https://www.stem.org.uk/resources/elibrary/resource/32696/battle-beaks>