

### Long Term plan for Science at SPJS / Year 6 statutory Programme of study

	<b>Programme of Study</b>
Working scientifically	<ul style="list-style-type: none"> <li>▪planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>▪taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>▪recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>▪using test results to make predictions to set up further comparative and fair tests</li> <li>▪reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>▪identifying scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>
Living things + their habitats	<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>
Animals, including humans	<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>
Evolution & inheritance	<ul style="list-style-type: none"> <li>▪recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</li> <li>▪recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</li> <li>▪identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> </ul>
Light	<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> </ul>

	<ul style="list-style-type: none"><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>
Electricity	<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 and the on/off position of switches</li><li>▪use recognised symbols when representing a simple circuit in a diagram.</li></ul>