



# St Mary's Catholic Junior School

## Year 6

### Science Long Term Planner



Autumn I	Autumn II	Spring I	Spring II	Summer I	Summer II
Animals including humans	Working scientifically	Evolution and inheritance	Living things and their habitats	Light	Electricity

CURRICULUM DOCUMENT				
Animals including humans	Evolution and inheritance	Living things and their habitats	Light	Electricity
<p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans.</p>	<p>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>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</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p>	<p>Recognise that light appears to travel in straight lines</p> <p>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</p> <p>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</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>	<p>Identify common appliances that run on electricity</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p>

**CURRICULUM ENTITLEMENT**

	<b>Key Scientific Knowledge</b>	<b>Vocabulary</b>	<b>Assessment Criteria – ‘Can I...? statements’</b>
<b>Animals including humans</b>	<ul style="list-style-type: none"> <li>• Parts of the circulatory system</li> <li>• Functions of the heart and lungs</li> <li>• Impact of exercise and diet</li> <li>• Transportation of nutrients</li> </ul>	transfusion plasma pancreas diabetes transportation spleen alveoli bacteria blood vessels oxygenated capillaries heart rate addiction	<ul style="list-style-type: none"> <li>• Can I identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood?</li> <li>• Can I recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function?</li> <li>• Can I describe the ways in which nutrients and water are transported within animals, including humans?</li> </ul>
<b>Evolution and Inheritance</b>	<ul style="list-style-type: none"> <li>• Fossil information</li> <li>• Variation in offspring</li> <li>• Adaptations in plants and animals</li> </ul>	natural selection ancestor inheritance evolution husbandry generation fossilisation	<ul style="list-style-type: none"> <li>• Can I 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>• Can I recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents?</li> <li>• Can I identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution?</li> </ul>
<b>Living things and their habitats</b>	<ul style="list-style-type: none"> <li>• Classification of plants and animals</li> <li>• Specific characteristics</li> </ul>	classify prokaryote species vertebrae invertebrate microorganism fungi kingdom	<ul style="list-style-type: none"> <li>• Can I 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>• Can I give reasons for classifying plants and animals based on specific characteristics?</li> </ul>
<b>Light</b>	<ul style="list-style-type: none"> <li>• Light traveling straight</li> <li>• Reflection of light</li> <li>• Formation of shadows</li> </ul>	transparent opaque translucent magnify angle of incidence angle of reflection lens	<ul style="list-style-type: none"> <li>• Can I recognise that light appears to travel in straight lines?</li> <li>• Can I 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> </ul>

		refraction	<ul style="list-style-type: none"> <li>• Can I 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>• Can I 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>
<b>Electricity</b>	<ul style="list-style-type: none"> <li>• Building circuits</li> <li>• Series and parallel circuit</li> <li>• Conductors and insulators</li> </ul>	static electricity filament voltage insulator conductor fuse component variable resistor	<ul style="list-style-type: none"> <li>• Can I identify common appliances that run on electricity</li> <li>• Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers?</li> <li>• Can I identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery?</li> <li>• Can I recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit?</li> <li>• Can I recognise some common conductors and insulators, and associate metals with being good conductors?</li> </ul>