

Autumn 1 A new perspective	Autumn 2 Courage and conflict	Spring 1 Polar regions	Spring 2 Digital dreams	Summer 1 Neuvo Mundo	Summer 2 ID
<p><b>Light</b></p> <p>The children will:</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 the light that 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>	<p><b>Electricity – morse code</b></p> <p>The children will:</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 and the on/off position of switches</li> <li>• use recognised symbols when representing a simple circuit in a diagram.</li> </ul>	<p><b>Polar adaptations/ Darwin Evolution and inheritance</b></p> <p>The children will:</p> <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> <p><b>Living things and their habitats</b></p> <p>The children will:</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 microorganisms, plants and animals</li> <li>• give reasons for classifying plants and animals based on specific characteristics</li> </ul>	<p><b>Electricity - batteries</b></p> <p>The children will:</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 and the on/off position of switches</li> <li>• use recognised symbols when representing a simple circuit in a diagram.</li> </ul>	<p><b>Adaptations – hot Evolution and inheritance</b></p> <p>The children will:</p> <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> <p><b>Living things and their habitats</b></p> <p>The children will:</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 microorganisms, plants and animals</li> <li>• give reasons for classifying plants and animals based on specific characteristics</li> </ul>	<p><b>Circulatory system Animals including humans</b></p> <p>The children will:</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>

**Pupils will be taught to use the following skills when carrying out investigations:**

- Plan different types of scientific enquiries to answer questions, including recognise and controlling variables where necessary
- Independently take measurements, using a range of scientific equipment, (thermometers, pedometers, stop watches, force meters) with increasing accuracy and precision and take repeat readings when appropriate
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, graphs, bar and line graphs. Think sensibly about the scales to use.
- Make predictions that relate to past learning and give reasons for their predictions
- Discuss if they feel they have achieved a valid result
- Identifying scientific evidence that has been used to support or refute ideas or arguments in relation to the origin of man
- Explore systematically and logically to reach a conclusion
- Recognise that scientific ideas change and develop over time for example the knowledge of our solar system
- Draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.
- Pupils should read, use, spell and pronounce scientific Vocabulary correctly, unless a specific education need has been identified

