

| Year 6                                 | Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                        | Autumn Topic 1: Evolution and Inheritance                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Autumn topic 2: Electricity                                                                                                                                                                                                                                                                                                                                                                                                         |
| National curriculum statements         | <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> | <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> |
| Retrieval<br>(to support new learning) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Knowledge statements                   | <p>Know that living things change over time and fossils can show this change.</p> <p>Describe how offspring can vary from their parents.</p> <p>Describe how animals adapt to suit their environment and how this relates to evolution.</p>                                                                                                                                                                                                                                                           | <p>Know that number of cells and voltage can alter the output of components.</p> <p>Explain why components output can change and give reasons.</p> <p>Use correct scientific symbols in creating circuit diagrams.</p>                                                                                                                                                                                                              |
| Vocabulary                             | Evolution, Adaptation, Charles Darwin, natural selection                                                                                                                                                                                                                                                                                                                                                                                                                                              | Voltage, component, function, symbols, output                                                                                                                                                                                                                                                                                                                                                                                       |
| Cultural capital and local resources   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Year 6                                 | Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                        | Spring topic 1: Light                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Spring topic 2: Animals including humans                                                                                                                                                                                                                                                                                                                                                            |
| National curriculum statements         | <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>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> |
| Retrieval<br>(to support new learning) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                     |
| Knowledge statements                   | <p>Describe how light travels in straight lines.</p> <p>Explain that we can see objects because they give out or reflect light into the eye.</p> <p>Link light travelling in straight lines to shadows being the same shape as the objects that cast them.</p>                                                                                                                                                                                                                                                                                | <p>Name and describe parts of the heart, blood vessels, and blood.</p> <p>Explain the impact of diet, exercise and lifestyle and their importance to overall health.</p> <p>Describe water and nutrient transportation in animals including humans.</p>                                                                                                                                             |
| Vocabulary                             | Light source, opaque, transparent, optical, mirror                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Circulatory system, atrium, ventricle, valve, BPM                                                                                                                                                                                                                                                                                                                                                   |
| Cultural capital and local resources   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                     |

| Year 6                                 | Science                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                 |
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|                                        | Summer topic 1: Living things and their habitats                                                                                                                                                                                                                                                                                                 | Summer topic 2: Environment                                                                                                                                     |
| National curriculum statements         | <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> | N/A                                                                                                                                                             |
| Retrieval<br>(to support new learning) |                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |
| Knowledge statements                   | Classify living things in a variety of ways based on similarities, differences, and observable characteristics.<br>Explain reasoning behind classification of living things into specific groups.                                                                                                                                                | Explore ways in which humans can change behaviours to have a more positive impact on the climate.<br>Analyse data to explore trends and predict future impacts. |
| Vocabulary                             | Classification, species, kingdom, Linnaean System                                                                                                                                                                                                                                                                                                | Climate change, global warming, fossil fuels, renewables, net zero                                                                                              |
| Cultural capital and local resources   |                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                 |