

**SCIENCE LONG TERM PLAN (KS1/KS2)**

|         | AUTUMN 1                                                                                                                                                                                                                                  | AUTUMN 2                                                                                                                                                                                                              | SPRING 1                                                                                                                                                                                                                                                                                                                                                                    | SPRING 2 | SUMMER 1                                                                                                                                                                                                  | SUMMER 2                                                                                                                                                                                                        |
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| YR<br>1 | <b>Everyday Materials</b><br><b>Chemistry:</b> Everyday materials.<br><i>Distinguishing objects from the material it's made from, and describing simple properties</i>                                                                    | <b>Autumn &amp; Winter</b><br><b>Physics:</b><br><i>Pupils observe changes across the four seasons. They observe and describe weather associated with the seasons and how the length of a day varies.</i>             | <b>Amazing Animals</b><br><b>Biology:</b> Animals, including humans<br><i>Identifying and name a variety of common animals that are carnivores, herbivores and omnivores. Identifying, name, draw and label the basic parts of the human body, linking with their associated senses.</i>                                                                                    |          | <b>Spring &amp; Summer</b><br><b>Physics:</b><br><i>Pupils observe changes across the four seasons. They observe and describe weather associated with the seasons and how the length of a day varies.</i> | <b>Common Plants</b><br><b>Biology:</b><br><i>Identify and name a variety of wild and garden plants. They also identify and describe the basic structure of a variety of flowering plants, including trees.</i> |
|         | My Local Area                                                                                                                                                                                                                             | Toys in Time<br>1950-Present                                                                                                                                                                                          | Transport & Travel<br>000BC-1969                                                                                                                                                                                                                                                                                                                                            |          | The United Kingdom                                                                                                                                                                                        | Our Seaside: Now & Then<br>1837-1901                                                                                                                                                                            |
| YR<br>2 | <b>Animals &amp; Survival</b><br><b>Biology:</b> Needs of animals<br><i>Animals need water, food and air to survive and to have offspring</i><br>Importance of exercise. Eating the right amounts of different types of food and hygiene. | <b>Uses of Materials</b><br><b>Chemistry:</b><br><i>Identify and compare the suitability of a variety of everyday materials. Including how the shapes of solid objects, made from some materials, can be changed.</i> | <b>Living Things &amp; their Habitats</b><br><b>Biology:</b><br><i>Investigate difference between things that are living, dead and that have never been alive. Understand most organisms live within habitats and organisms within an environment are suited to life there and depend on each other, identifying and classifying organisms within habitats, food chains</i> |          | <b>Protecting our Environment</b><br><i>Investigating the human impact on the environment and their role in protecting it.</i>                                                                            | <b>Plants &amp; Growth</b><br><b>Biology:</b><br><i>Plants grow from seeds, and require water, light and a suitable temperature</i>                                                                             |
|         | Kings & Queens<br>1066-Present                                                                                                                                                                                                            | The Great Fire of London<br>1666                                                                                                                                                                                      | Planet Earth                                                                                                                                                                                                                                                                                                                                                                |          | Life in Kenya                                                                                                                                                                                             | They Made a Difference                                                                                                                                                                                          |
| YR<br>3 | <b>Skeletons &amp; Muscles</b><br><b>Biology:</b> Living organisms<br><i>The role of muscles and skeletons; the importance of nutrients</i>                                                                                               | <b>Rocks &amp; Fossils</b><br><b>Chemistry:</b> Rocks<br><i>Comparisons of types of rocks and how fossils are formed and that soils are made from rocks and organic matter.</i>                                       | <b>Light &amp; Shadows</b><br><b>Physics:</b><br><i>To recognise that they need light to see things and that dark is the absence of light. They are also taught to notice that light is reflected from surfaces. To recognise that shadows are formed when the light from a source is blocked by an opaque object and to find patterns in the way that shadows change.</i>  |          | <b>Plants: Needs for Survival</b><br><b>Biology:</b><br><i>The key features of flowering plants and what they need to survive</i>                                                                         | <b>Forces &amp; Magnets</b><br><b>Physics:</b><br><i>Magnets have poles which attract or repel. Group materials based on if they are attracted to a magnet. Identify some magnetic materials.</i>               |
|         | Settlement & Land Use in the UK                                                                                                                                                                                                           | Stone, Bronze & Iron Age Britain<br>450,000BC-2300BC-800BC                                                                                                                                                            | Europe Case Study: Italy                                                                                                                                                                                                                                                                                                                                                    |          | Climate Zones & Biomes                                                                                                                                                                                    | Ancient Greeks<br>700-400BC                                                                                                                                                                                     |

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| Science Unit | Geography Unit | History Unit |
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|      | AUTUMN 1                                                                                                                                                                                                                                                                              | AUTUMN 2                                                                                                                                                                                                                                                                                         | SPRING 1                                                                                                                                                                                                                                                                                              | SPRING 2                                                                                                                                                                                       | SUMMER 1                                                                                                                                                                                                                                                           | SUMMER 2                                                                                                                                                                                                                                                                                                                                                                                            |
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| YR 4 | <b>Teeth &amp; Digestion</b><br><b>Biology:</b><br>Functions of parts of the digestive system in humans and to identify the different types of teeth in humans and their use.                                                                                                         | <b>States of Matter</b><br><b>Chemistry:</b><br>Comparing and grouping materials together (solids, liquids or gases). Pupils observe materials changing state when heated or cooled. Role of evaporation and condensation in the water cycle.                                                    | <b>Classification &amp; Environments</b><br><b>Biology:</b><br>Exploring and using classification keys to help group, identify and name a variety of living things within their local and wider environment.                                                                                          | <b>Classification &amp; Environments</b><br><b>Biology:</b><br>Environments can change and that this can sometimes pose dangers to living things.                                              | <b>Sound</b><br><b>Physics:</b><br>Vibrations from sounds travel through a medium to the ear. Finding patterns between the pitch of a sound and features of the object that made it and the volume of a sound and the strength of the vibrations that produced it. | <b>Electricity</b><br><b>Physics:</b><br><i>Constructing a simple series electrical circuit, identifying, and naming its basic parts. To recognise that a switch opens and closes a circuit whilst associating this with whether or not a lamp lights in a simple series circuit.</i>                                                                                                               |
|      | Roman Invasions<br>27BC-476AD                                                                                                                                                                                                                                                         | Roman Britain<br>27BC-410AD                                                                                                                                                                                                                                                                      | Amazon: Rivers and Rainforests                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                | Maya Civilisation<br>c900AD                                                                                                                                                                                                                                        | The USA                                                                                                                                                                                                                                                                                                                                                                                             |
| YR 5 | <b>Earth &amp; Space</b><br><b>Physics:</b> <i>The movement of the Earth and other planets relative to the sun in the solar system. Describing the movement of the moon relative to the Earth and the sun. Using the Earth's rotation to explain why we experience day and night.</i> | <b>Forces</b><br><b>Physics:</b> <i>Understanding the force of gravity. Identifying the effects of air resistance, water resistance and friction, that act between moving surfaces. Recognise mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.</i> | <b>Properties &amp; Changes of Materials</b><br><b>Chemistry:</b><br>To know some materials will dissolve in liquid to form a solution and describe how to recover a substance from that solution.                                                                                                    | <b>Properties &amp; Changes of Materials:</b><br>To demonstrate that dissolving, mixing and changes of state are reversible changes. Know that some changes are irreversible.                  | <b>Life Cycles</b><br><b>Biology:</b><br>Life cycles of a mammal, an amphibian, an insect and a bird. Learning about the life process of reproduction in some plants and animals.                                                                                  | <b>Getting Older</b><br><b>Biology:</b><br>Human development to old age                                                                                                                                                                                                                                                                                                                             |
|      | Anglo-Saxons & Scots<br>410AD-870AD                                                                                                                                                                                                                                                   | Vikings<br>793AD – 1066                                                                                                                                                                                                                                                                          | Asia: Volcanoes & Earthquakes                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                | The War of the Roses: Establishment of Tudor Dynasty 1455-1487                                                                                                                                                                                                     | The Industrial Revolution<br>1750-1900                                                                                                                                                                                                                                                                                                                                                              |
| YR 6 | <b>Light &amp; Perception</b><br><b>Physics:</b><br>Light travels in straight lines. Objects are seen because they give out or reflect light into the eye. We see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.  | <b>Classification</b><br><b>Biology:</b><br>Living things are classified into broad groups according to common observable characteristics, based on similarities and differences. Classification includes microorganisms, plants and animals.                                                    | <b>Evolution &amp; Inheritance: How</b><br>living things have changed over time, fossils provide information about living things that inhabited the Earth millions of years ago. Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents | <b>Evolution &amp; Inheritance</b><br><b>Biology:</b><br>Identifying how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. | <b>Electricity &amp; Circuits</b><br><b>Physics:</b><br>Associating the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function.               | <b>Circulation &amp; Lifestyle</b><br><b>Biology:</b><br>Identify and name the main parts of the human circulatory system, to describe the functions of the heart, blood vessels and blood. To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function and to describe the ways in which nutrients and water are transported within animals, including humans. |
|      | Ancient Egyptians<br>3100BC-332BC                                                                                                                                                                                                                                                     | Global Challenges                                                                                                                                                                                                                                                                                | Conflict & Resolution<br>1914-1945                                                                                                                                                                                                                                                                    | Mapping the World                                                                                                                                                                              |                                                                                                                                                                                                                                                                    | Making our Mark                                                                                                                                                                                                                                                                                                                                                                                     |