

Across all year groups scientific knowledge and skills should be learned by working scientifically.

<b>Cycle A</b>					
<b>Ourselves</b>	<b>Toy Box</b>	<b>Homes</b>	<b>Fur, Feet and Feathers</b>	<b>Into the Woods</b>	<b>Dinosaur Roar</b>
<p><b>EYFS: The World</b> Develop an understanding of growth and changes over time</p>	<p><b>EYFS: The World</b> Talk about why things happen and how things work Know about similarities and differences in relation to objects and materials</p>	<p><b>EYFS: The World</b> Talk about features of their own immediate environment and how environments may vary from one another Know about similarities and differences in relation to objects and materials</p>	<p><b>EYFS: The World</b> Show care and concern for living things and the environment Make observations of animals and explain why some things occur, and can talk about changes</p>	<p><b>EYFS: The World</b> Develop an understanding of growth, decay and changes over time Make observations of plants and explain why some things occur, and can talk about changes</p>	<p><b>EYFS: The World</b> Develop an understanding of changes over time Know about similarities and differences in relation to living things.</p>
<p><b>ANIMALS, INCLUDING HUMANS Y1</b></p> <ul style="list-style-type: none"> <li>• Know how to name the parts of the human body that can be seen</li> <li>*Know how to link the correct part of the human body to each sense</li> </ul>	<p><b>EVERYDAY MATERIALS Y1 (Toys)</b></p> <ul style="list-style-type: none"> <li>• Distinguish between an object and the material from which it is made</li> <li>• identify and name a variety of everyday materials, including wood, metal, and plastic.</li> </ul>	<p><b>EVERYDAY MATERIALS Y1 (building and construction)</b></p> <ul style="list-style-type: none"> <li>• identify and name a variety of everyday materials, including wood, rock, glass, metal, water, and plastic.</li> <li>• describe the simple physical properties of a variety of everyday materials</li> <li>• compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p><b>ANIMALS: (Pets / Farm/ Birds) Y1</b></p> <ul style="list-style-type: none"> <li>•Know and name a variety of animals, including fish, amphibians, reptiles, birds and mammals</li> <li>* Classify and know animals by what they eat (carnivore, herbivore and omnivore)</li> <li>*Know how to sort animals into categories (including fish, amphibians, reptiles, birds and mammals)</li> <li>*Know how to sort living and non-living things</li> </ul>	<p><b>PLANTS Y1</b></p> <ul style="list-style-type: none"> <li>*Know and name a variety of common wild and garden plants</li> <li>*Know and name the petals, stem, leaves and root of a plant</li> <li>*Know and name the roots, trunk, branches and leaves of a <u>tree</u>.</li> </ul>	<p><b>ANIMALS, INCLUDING HUMANS cont. Y1</b></p> <ul style="list-style-type: none"> <li>•Identify and name a variety of common animals including fish, amphibians, <u>reptiles</u>, birds and mammals</li> <li>• identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>• describe and compare the structure of a variety of common animals (fish, amphibians, <u>reptiles</u>, birds and mammals.)</li> </ul>
<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>
<p>SEASONAL CHANGES: • Observe changes across the four seasons      * Observe and describe weather associated with the seasons</p>					

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Cycle A		
Healthy Me	Up and Away	Island Explorers
Animals, including Humans (Y2)	Uses of Everyday Materials (Y2)	Plants (Y2)
<p>*Know the basic stages in a life cycle for animals including humans            * Know what animals and humans need to survive            *Know why exercise, a balanced diet and good hygiene are important for humans</p>	<ul style="list-style-type: none"> <li>• Identify and compare the suitability of a variety of everyday objects including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> <li>• Find out how shapes of solid objects can be changed by squashing, bending, twisting and stretching</li> <li>• <i>Explore materials used in space travel and astronauts space suits</i></li> </ul>	<p>• Know how seeds and bulbs grow into mature plants            *Know that plants need water, light and a suitable temperature to grow and stay healthy</p> <p><b>Living Things and their Habitats</b></p> <ul style="list-style-type: none"> <li>• Identify things that are living, dead and never lived</li> <li>• Know how a specific habitat provides for the basic needs of things living there (plants and animals)</li> <li>• Identify and name plants and animals in a range of habitats</li> <li>• Match living things to their habitat</li> <li>• Know how animals find their food</li> <li>• Name some different sources of food for animals</li> <li>• Explain a simple food chain</li> </ul>
<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>
SEASONAL CHANGES: • Observe changes across the four seasons		* Observe and describe weather associated with the seasons.

## SCIENCE Curriculum

## Class 3

Across all year groups scientific knowledge and skills should be learned by working scientifically.

<b>Cycle A</b>		
<b>Rainforests</b>	<b>Stone Age – Iron Age</b>	<b>Ancient Egypt</b>
<p><b>PLANTS (Y3)</b></p> <ul style="list-style-type: none"> <li>• Know the function of different parts of flowering plants and trees (roots, stem/trunk, leaves and flowers)</li> <li>• Know and explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow).</li> <li>• Know how water is transported within plants.</li> <li>• Know the plant life cycle, especially the importance of flowers, including pollination, seed formation and seed dispersal.</li> </ul> <p><b>ANIMALS, INCLUDING HUMANS (Y3)</b></p> <ul style="list-style-type: none"> <li>• Know about the importance of a nutritious, balanced diet.</li> <li>• Know how nutrients, water and oxygen are transported within animals and humans.</li> <li>• Know about the skeletal and muscular systems of a human.</li> <li>• Know about the purpose of the skeleton in humans and animals.</li> </ul>	<p><b>ROCKS (Y3)</b></p> <ul style="list-style-type: none"> <li>• Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties, giving a reason.</li> <li>• Know and describe how fossils are formed.</li> <li>• Know how soil is made.</li> <li>• Know about and explain the difference between sedimentary, metamorphic and igneous rock.</li> </ul> <p><b>LIGHT (Y3)</b></p> <ul style="list-style-type: none"> <li>• Know what dark is (the absence of light).</li> <li>• Know that light is needed in order to see.</li> <li>• Know that light is reflected from a surface.</li> <li>• Know and demonstrate how a shadow is formed.</li> <li>• Explore shadow size and explain the changes.</li> <li>• Know the danger of direct sunlight and describe how to keep protected.</li> </ul>	<p><b>FORCES AND MAGNETS (Y3)</b></p> <ul style="list-style-type: none"> <li>• Know about and describe how objects move on different surfaces.</li> <li>• Know how some forces require contact and some do not, giving examples.</li> <li>• Know about and explain how objects attract and repel on relation to objects and magnets.</li> <li>• Predict whether objects will be magnetic and carry out an enquiry to test this out.</li> <li>• Know how magnets work.</li> <li>• Predict whether magnets will attract or repel and give a reason.</li> </ul>
<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>

NB Consider a Science Day based on “Rocks” to ensure coverage for all.

## Science Curriculum

## Class 4

Across all year groups scientific knowledge and skills should be learned by working scientifically.

<b>Cycle A</b>		
<b>Earthquakes / Volcanoes</b>	<b>Mayan Civilisation</b>	<b>Around the World in 80 Days</b>
<p><b>PROPERTIES AND CHANGE OF MATERIALS (Y5)</b></p> <ul style="list-style-type: none"> <li>• Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.</li> <li>• Know that some materials will dissolve in liquid to form a solution, explaining the process of dissolving.</li> <li>• Know and show how to recover a substance from a solution.</li> <li>• Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</li> <li>• Demonstrate how materials can be separated.</li> <li>• Know and can demonstrate that some changes are reversible and some are not.</li> <li>• Know how some changes result in the formation of a new material and that this is usually irreversible.</li> <li>• Know about reversible and irreversible changes.</li> <li>• Give evidence reasons why materials should be used for specific purposes.</li> </ul>	<p><b>LIVING THINGS AND THEIR HABITATS (Y5)</b></p> <ul style="list-style-type: none"> <li>• Know the life cycle of different living things e.g. mammal, amphibian, bird, insect.</li> <li>• Know the differences between different life cycles.</li> <li>• Know the process of reproduction in plants.</li> <li>• Know the process of reproduction in animals.</li> </ul> <p><b>ANIMALS INCLUDING HUMANS (Y5)</b></p> <ul style="list-style-type: none"> <li>• Create a timeline to indicate stages of growth in humans.</li> </ul>	<p><b>FORCES (Y5)</b></p> <ul style="list-style-type: none"> <li>• Know what gravity is and the impact it has on our lives.</li> <li>• Identify and know the effect of air resistance.</li> <li>• Identify and know the effect of water resistance.</li> <li>• Identify and know the effect of friction.</li> <li>• Explain how levers, pulleys and gears allow a smaller force to have a greater effect.</li> </ul> <p><b>EARTH AND SPACE (Y5)</b></p> <ul style="list-style-type: none"> <li>• Know and describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</li> <li>• Know about and explain the movement of the Moon relative to the Earth.</li> <li>• Describe the Sun, Earth and Moon as approximately spherical bodies.</li> <li>• Know and demonstrate how night and day are created.</li> </ul>
<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>

## Science Curriculum

## Class 5

Cycle A		
Ancient Sumer	Benin	Mountains / Coastlines
<p><b>EARTH AND SPACE (Y5)</b></p> <ul style="list-style-type: none"> <li>• Know and describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</li> <li>• Know about and explain the movement of the Moon relative to the Earth.</li> <li>• Describe the Sun, Earth and Moon as approximately spherical bodies.</li> <li>• Know and demonstrate how night and day are created.</li> </ul> <p><b>PROPERTIES AND CHANGE OF MATERIALS (Y5)</b></p> <ul style="list-style-type: none"> <li>• Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.</li> <li>• Know that some materials will dissolve in liquid to form a solution, explaining the process of dissolving.</li> <li>• Know and show how to recover a substance from a solution.</li> <li>• Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</li> <li>• Demonstrate how materials can be separated.</li> <li>• Know and can demonstrate that some changes are reversible and some are not.</li> <li>• Know how some changes result in the formation of a new material and that this is usually irreversible.</li> <li>• Know about reversible and irreversible changes.</li> <li>• Give evidence reasons why materials should be used for specific purposes.</li> </ul>	<p><b>LIVING THINGS AND THEIR HABITATS (Y5)</b></p> <ul style="list-style-type: none"> <li>• Know the life cycle of different living things e.g. mammal, amphibian, bird, insect.</li> <li>• Know the differences between different life cycles.</li> <li>• Know the process of reproduction in plants.</li> <li>• Know the process of reproduction in animals.</li> </ul> <p><b>ANIMALS INCLUDING HUMANS (Y5)</b></p> <ul style="list-style-type: none"> <li>• Create a timeline to indicate stages of growth in humans.</li> </ul>	<p><b>FORCES (Y5)</b></p> <ul style="list-style-type: none"> <li>• Know what gravity is and the impact it has on our lives.</li> <li>• Identify and know the effect of air resistance.</li> <li>• Identify and know the effect of water resistance.</li> <li>• Identify and know the effect of friction.</li> <li>• Explain how levers, pulleys and gears allow a smaller force to have a greater effect.</li> </ul> <p><b>EVOLUTION AND INHERITANCE (Y6)</b></p> <ul style="list-style-type: none"> <li>• Know that Earth and living things have changed over time.</li> <li>• Know how fossils can be used to find out about the past.</li> <li>• Know about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents).</li> <li>• Know how animals and plants are adapted to suit their environment.</li> <li>• Link adaptation over time to evolution.</li> <li>• Know about evolution and can explain what it is.</li> </ul>
<b>Scientist:</b>	<b>Scientist:</b>	<b>Scientist:</b>

