

## Science Curriculum Map 2020-21

2yr Planning Cycle	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year A KS1	<p style="text-align: center; color: #00b050;"><b>Human Life</b></p> <p>Identify, name, draw and label the basic parts of the human body and say which part is associated with each sense. <u>Scientists &amp; Inventors: How do doctors use science in their jobs?</u> (Elizabeth Garrett Anderson)</p> <p style="text-align: center;">(Seasons: 'Autumn' through Outdoor learning)</p>	<p style="text-align: center; color: #00b050;"><b>Materials: Properties</b></p> <p>Sorting, identifying and describing different materials. Describing the physical properties of materials and comparing their suitability for tasks.</p> <p style="text-align: center;">(Seasons: 'Winter' through Outdoor learning)</p>	<p style="text-align: center; color: #00b050;"><b>Animal Life</b></p> <p>Grouping and classifying animals. Describing animal bodies and matching animal babies to their adults. Exploring what animals eat (carnivore, herbivore, omnivore) and investigating the basic needs of animals. How do I care for a pet?</p>	<p style="text-align: center; color: #00b050;"><b>Materials- Changes</b></p> <p>How can we change the shape of a material? Squash, bend, twist and stretch. Investigations: Which ball is the bounciest? Which is the most rigid? Who can make the strongest bridge from paper? <u>Scientists &amp; Inventors: Wind power</u> (Seasons: 'Spring' through Outdoor learning)</p>	<p style="text-align: center; color: #00b050;"><b>Plants &amp; Minibeasts</b></p> <p>Lifecycle of a flowering plant. What do plants need to grow? Discover life in our local habitat. Exploring our environment to identify minibeasts and their microhabitats.</p>	<p style="text-align: center; color: #00b050;"><b>Habitats</b></p> <p>Identify and create food chains. Compare differences between things that are living, dead and never alive. Investigating life in a watery habitat (rivers/ ponds).</p> <p style="text-align: center;">(Seasons: 'Summer' through outdoor learning)</p>
Year B KS1	<p style="text-align: center; color: #00b050;"><b>Animal Life</b></p> <p>Grouping and classifying animals. Describing animal bodies and matching animal babies to their adults. Exploring what animals eat (carnivore, herbivore, omnivore) and investigating the basic needs of animals. How do I care for a pet? (Seasons: 'Autumn' through Outdoor learning)</p>	<p style="text-align: center; color: #00b050;"><b>Human Life</b></p> <p>Identify, name, draw and label the basic parts of the human body and say which part is associated with each sense. <u>Scientists &amp; Inventors: How do germs spread?</u> (Louis Pasteur)</p> <p style="text-align: center;">(Seasons: 'Winter' through Outdoor learning)</p>	<p style="text-align: center; color: #00b050;"><b>Materials: Properties</b></p> <p>Sorting, identifying and describing different materials. Describing the physical properties of materials and comparing their suitability for tasks. <u>Scientists &amp; Inventors: Who invented Lego?</u></p>	<p style="text-align: center; color: #00b050;"><b>Materials- Changes</b></p> <p>How can we change the shape of a material? Squash, bend, twist and stretch. Investigations: Which ball is the bounciest? Which is the most rigid? Who can make the strongest bridge from paper? <u>Scientists &amp; Inventors: Charles Macintosh-waterproofing</u> (Seasons: 'Spring' through Outdoor learning)</p>	<p style="text-align: center; color: #00b050;"><b>Plants &amp; Minibeasts</b></p> <p>Lifecycle of a flowering plant. What do plants need to grow? Discover life in our local habitat. Exploring our environment to identify minibeasts and their microhabitats.</p>	<p style="text-align: center; color: #00b050;"><b>Habitats</b></p> <p>Identify and create food chains. Compare differences between things that are living, dead and never alive. Investigating life in a seaside habitat.</p> <p style="text-align: center;">(Seasons: 'Summer' through outdoor learning)</p>

Year A LKS2	<p><b>Rocks</b> Comparison of different rock types and soils by recognising simple properties. Exploration into fossil formation <b>Scientist &amp; Inventors</b> Mary Anning</p>	<p><b>Animals including Humans.</b> Investigating the bodies of different animals, and the functions of muscles, bones and joints.</p>	<p><b>Forces and magnets</b> Investigation into how, unlike most forces, magnetic force acts without any direct contact. Identification of magnetic materials, and how the poles of magnets attract or repel materials .</p>	<p><b>Light</b> Discover into the need for light to see, and investigating how light can be reflected or blocked by objects</p>	<p><b>Sound</b> Explore how vibrations can cause sound, and how sound can differ by pitch, volume and distant.</p>	<p><b>Living things &amp; Habitats</b> Using classification keys to group living things in our local and wider environment.</p>
Year B LKS2	<p><b>Electricity</b> Explore electrical items and safe use; create simple series circuits to power simple devices. <b>Scientists &amp; Inventors</b> Thomas Edison William Gilbert Micheal Faraday</p>	<p><b>Practical Electricity</b> (Combining DT creations) NC KS2 Design and Technology</p>	<p><b>Plants</b> Recognition of functionality of plant structures, including a detailed exploration into the flower's role in the life cycle of a plant. <b>Scientists &amp; Inventors</b> William Smith, Inge Lehmann</p>		<p><b>Changing states of matter</b> Comparing solids, liquids and gases, and investigating how these changes with heating and cooling experiments. systems are adapted to their diets.</p>	<p><b>Animals including Humans.</b> Investigating the food chains of different animals, and how their digestive systems are adapted to their diets</p>
Year A UPKS2	<p><b>Earth and Space</b> Investigating the placement and movement of Earth, other planets and the moon. In addition, recognition of how day and night occur in relation to the Earth's rotation.</p>		<p><b>Forces</b> Exploration into forces that act on us every day (gravity, air resistance, friction)</p>	<p><b>Animals including humans.</b> Exploration into the human body, recognising the functions of the main components in the circulatory system, and how this system can be harmed if it is not respected and cared for.</p>	<p><b>Properties &amp; changes of materials</b> Exploring reversible and irreversible changes, including mixing and separating solutions.</p>	<p><b>Living things &amp; Habitats (Yr 6 obj)</b> Children learn that evolutionary taxonomy is the most modern way of grouping organisms. They learn that it is a development of Linnaeus' system, but is superior because it shows how closely organisms are related to each other.</p>
Year B UPKS2	<p><b>Animals including humans.</b> Explore and compare the life cycles of different animals</p>	<p><b>Living things &amp; Habitats (YR 5 obj)</b> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life process of reproduction in some plants and animals.</p>	<p><b>Evolution and Inheritance</b> Exploration into inherited genes, and how living things change, and evolve, over time to adapt to their environment.</p>	<p><b>Light</b> Exploration into how light travels from light sources in straight lines, and how this affects reflection and shadows</p>	<p><b>Electricity</b> Study of how simple series circuits can be changed by swapping or adding different components, explaining why these functions change.</p>	<p><b>Scientists and Inventors To describe, and explain the work of Scientists and &amp; Inventors.</b> Stephen Hawking, Libbie Hyman, Mary Leakey and Steve Jobs.</p>