












<p><b>Year Group:</b> 5</p>	<p><b>Title:</b> Biomes, Environments and climate change</p>
<p>National Curriculum coverage: Locational knowledge (a &amp; c) Place knowledge Human and physical Geography (a &amp; b) Geographical fieldwork (a, b &amp; c)</p>	<p><b>Context:</b> <i>This unit builds on the work the children do in Y4 about water pollution and plastic pollution of aquatic biomes. The children learn about the different biomes found around the whole world; what flora and fauna they contain and how they are affected by Humans. The children are also continuing to build on their recall of places around the world.</i></p>
<p><b>Concepts:</b> place, space, scale, interdependence, physical and human processes, environmental impact, sustainable development, cultural awareness <b>Geography Specific Concepts</b> – Diversity, Change, Interaction, Place, Scale, Distance, Movement, Sustainability <b>Project Specific Concepts</b> – Sustainability, Into-connectiveness, Common Good, Responsibility</p>	<p><b>Pre and Post Learning</b> – Identify biomes on a world map</p>
<p><b>Visits and Visitors:</b> Ecclesall Woods</p>	<p><b>St. Mary's Experience:</b> Build a den and Do litter pick</p>
<p><b>Careers/preparation for adulthood:</b></p> <ul style="list-style-type: none"> <li> <b>Map Maker (Cartographer)</b> - Makes maps showing oceans and rivers.</li> <li> <b>A Geographer</b> – Maps biomes, climate zones, and human impacts on landscapes.</li> <li> <b>A Weather Forecaster (Meteorologist)</b> – Studies weather patterns and forecasts short-term changes.</li> <li> <b>A Climate Scientist (Climatologist)</b> – Researches long-term climate trends and global climate zones.</li> <li> <b>Marine Biologist / Fisheries Manager</b> – Focuses on ocean ecosystems and the effects of human activity like overfishing.</li> <li> <b>Environmental Scientist (Ecologist)</b> – Studies biomes, ecosystems, and species interactions.</li> <li> <b>Conservation Scientist / Wildlife Conservationist</b> – Protects natural habitats and endangered species.</li> <li> <b>Environmental Consultant / Sustainability Specialist</b> – Advises on human impacts like pollution, climate change, and resource management.</li> <li> <b>Environmental Engineer</b> - Designs solutions to reduce pollution, manage resources, or mitigate human impacts.</li> </ul>	<p><b>Key People:</b> <b>Weather vs Climate &amp; Climate Zones</b> <b>Wladimir Köppen</b> - Developed the Köppen climate classification; helps identify 6 main climate zones.</p> <p><b>Biomes &amp; Their Features</b> <b>Frederic Clements &amp; Henry Gleason</b> - Early ecologists; studied plant communities and succession, foundational for biome understanding. <b>E.O. Wilson</b> - Biodiversity expert; shows species variation across biomes.</p> <p><b>Climate Change</b> <b>James Hansen</b> - NASA scientist; provided evidence for human-induced climate change. <b>Rachel Carson</b> - Highlighted environmental pollution and human impact (Silent Spring).</p> <p><b>Human Impact on Biomes</b> <b>Wangari Maathai</b> - Advocated reforestation and sustainable development; positive human influence on biomes. <b>Jane Goodall</b> - Studied chimpanzees and habitats; shows effects of deforestation and human activity. <b>David Attenborough</b> - Communicates effects of pollution, overfishing, and habitat destruction on wildlife and ecosystems.</p>

<p><b>Solidarity</b></p>  <p>Shrill the Sun bear Showing we care</p>	<p><b>Catholic Social Teaching:</b></p> <p><b>Stewardship &amp; Solidarity</b> – biomes provide ecosystems that support all life and it is our duty to work together to protect them</p>	<p><b>Stewardship</b></p>  <p>Sofia the Skunk Caring for God's gifts</p>	<p><b>British Values:</b></p> <p><b>The Rule of Law</b> - Governments create laws to reduce carbon emissions and protect the planet.</p> <p><b>Mutual Respect</b> - Recognizing the unique features of each biome fosters appreciation for global diversity.</p> <p><b>Individual liberty</b> - Highlight the role of personal choices in climate action</p>						
<p><b>End points (by the time pupils leave St. Mary's):</b></p> <ol style="list-style-type: none"> <li>1. Be able to navigate using atlases, maps and recall of knowledge of places.</li> <li>2. Be able to interpret and express geographical information correctly (maps, fieldwork, data)</li> <li>3. Know where in the world significant places are (including local and worldwide) and the people who live there (population, settlement, migration, diversity)</li> <li>4. Know how the earth's physical features were formed and transformed along with processes that affect it (E.g. weather, climate, tectonic activity and water cycle)</li> <li>5. Know how the earth has been affected by humans and resolve to alter their behaviour (i.e. climate change and sustainability)</li> </ol>									
<p><b>Prior knowledge:</b></p> <p>Y3</p> <ul style="list-style-type: none"> <li>• Locate key mountain ranges, mountains and volcanoes on a map,</li> <li>• Know how the earth is structured including tectonic plates and their movement,</li> <li>• Know hoe volcanoes are formed, what causes them to erupt and the effect this has on the landscape,</li> <li>• Recognise the effects that a volcanic eruption will have on people living near it.</li> </ul> <p>Y4</p> <ul style="list-style-type: none"> <li>• Locate the main rivers of the UK and world on a map</li> <li>• Recognise the difference between seas and oceans</li> <li>• Know the different biodiversity found in rivers, seas and oceans</li> <li>• Know what effect water pollution and plastic pollution has on rivers, seas and oceans around the world and actions that can reduce this.</li> </ul>		<p><b>Future knowledge: Y6</b></p> <ul style="list-style-type: none"> <li>• Know how to navigate using atlases, maps and recall of knowledge of places (map symbols, grid references, compass direction)</li> <li>• know what causes earthquakes, Volcanoes and tsunamis</li> <li>• know how weather and climate patterns cause certain natural disasters (E.g. hurricanes, droughts and floods)</li> <li>• know how humans are impacted differently by natural disasters in different countries</li> </ul>							
<p><b>Crucial knowledge: Y5</b></p> <ul style="list-style-type: none"> <li>• Know the difference between weather and climate and locate 6 main climate zones</li> <li>• Be able to explain what a biome is</li> <li>• Locate biomes on a map and describe their features</li> <li>• Know the cause and effect of climate change</li> <li>• Recognise the effect human actions can have on biomes (e.g. pollution, plastic, climate change, over fishing)</li> </ul>		<p><b>Vocabulary</b></p> <table border="1"> <tr> <td data-bbox="1131 1109 1630 1241"> <p><b>Tier 2</b> (General Academic Vocabulary - These are high-utility words used across multiple subjects)</p> </td> <td data-bbox="1632 1109 2112 1241"> <p><b>Tier 3</b> (Domain-Specific Vocabulary – These are specialized terms primarily used in music)</p> </td> </tr> <tr> <td data-bbox="1131 1243 1630 1342"> <p>1. temperature, precipitation, season, pattern, change, extreme, hot, cold, dry, wet, tropical, polar</p> </td> <td data-bbox="1632 1243 2112 1342"> <p>1. weather, climate, climate zone, meteorology, temperate, polar, arid, Mediterranean, tropical, tundra,</p> </td> </tr> <tr> <td data-bbox="1131 1343 1630 1465"> <p>2. environment, ecosystem, plants, animals, survive, adapt</p> </td> <td data-bbox="1632 1343 2112 1465"> <p>2. biome, rainforest, desert, grassland, deciduous forest, coniferous forest</p> </td> </tr> </table>		<p><b>Tier 2</b> (General Academic Vocabulary - These are high-utility words used across multiple subjects)</p>	<p><b>Tier 3</b> (Domain-Specific Vocabulary – These are specialized terms primarily used in music)</p>	<p>1. temperature, precipitation, season, pattern, change, extreme, hot, cold, dry, wet, tropical, polar</p>	<p>1. weather, climate, climate zone, meteorology, temperate, polar, arid, Mediterranean, tropical, tundra,</p>	<p>2. environment, ecosystem, plants, animals, survive, adapt</p>	<p>2. biome, rainforest, desert, grassland, deciduous forest, coniferous forest</p>
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## Geography Overview

	<p>3. locate, map, region, area, feature, land</p> <p>4. rise, fall, increase, decrease, effect, impact, human</p> <p>5. destroy, harm, protect, waste, pollute, overuse</p>	<p>3. hemisphere, latitude, longitude, equator, Tropic of Cancer, Tropic of Capricorn, map key</p> <p>4. climate change, global warming, greenhouse gases, carbon dioxide, deforestation, melting ice caps</p> <p>5. pollution, plastic waste, overfishing, habitat loss, urbanisation, conservation</p>
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