



Subject: Endangered Ecosystems

Overarching Topic: Endangered Ecosystems

<p>Why is this topic being studied at this time?</p> <p>How does it fit into the wider subject curriculum?</p>	<p>Earth has a wide variety of ecosystems which maintain its function and make it wondrous. Humans are part of these ecosystems and should be living in harmony with other organisms to create a sustainable future and a healthy planet. This unit will enable students to be in awe of our natural world and discover the variety of biomes and ecosystems which exist. They will learn about the incredible diversity of deserts and understand the importance of the goods and services within these ecosystems. Students will identify and evaluate the opportunities of deserts and threats of desertification. Students will link previous work on climate change to understanding the complexity of the world's most diverse marine ecosystems – coral reefs. The impacts of anthropogenic activity on the reefs and strategies to sustainably manage them will be assessed. Students will complete this topic with the skills to examine their own actions and their impact on global ecosystems.</p>
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	Critical	Core	Pinnacle
<p>The Big Questions (What questions will students be able to answer upon mastery of the topic?)</p>	<ul style="list-style-type: none"> • What is an ecosystem and biome? • What is desert? (hot and cold) • Where are deserts found? • What are the main characteristics of a hot desert? • What is a plant/animal adaptation? • How do different indigenous groups live in the rainforest? • How are there opportunities in the desert? • Where are coral reefs found? • What are coral reefs like? • What is a benefit and a service of a coral reef? 	<ul style="list-style-type: none"> • How are biomes distributed globally? • What are the factors affecting the distribution of hot deserts? • How have plants and animals adapted to desert conditions? • How do people survive and thrive in the desert? • What are the most significant opportunities within deserts? • Where are coral reefs distributed and what are their characteristics? • What are the threats to coral reefs? • How can coral reefs be sustainably managed? • How is plastic damaging the world's oceans? 	<p>How can the opportunities within deserts be harnessed to tackle some challenges previously studied e.g. climate change, energy management?</p> <p>Does the development of deserts clash with preserving the cultural identity of indigenous groups?</p> <p>Should tourists be allowed to visit coral reefs or should they be banned to allow them to recover?</p>

	<ul style="list-style-type: none"> • Where is an example of a coral reef? • How can we as humans impact coral reefs? 		
The Key Skills/ Techniques	The sophistication and application of skills will become more advanced as students' progress through the critical, core and pinnacle knowledge.		
	Skill/Technique	How will this skill be developed?	
	Graphical Skills	Use graphs and charts to investigate climate graphs, loss of coral reefs and quantities of plastics in the oceans.	
	Map Skills	Use maps to investigate the distribution of biomes and ecosystems globally.	
	Exam skills – Use of specific information e.g case studies	Analysis of resources linking to topic content. Extended writing using scaffolding and example answers . Evaluating impacts and viability of desert opportunities.	