

EMMANUEL COLLEGE
THE GEOGRAPHY DEPARTMENT

Year 10



Year 10	Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1
Unit Title	UK Physical Landscapes- Coastal Processes and Landscapes		Urban Issues and Challenges – The Urban World
Key Question(s)?	How do coastal processes and systems change and how do people interact with them at a range of scales?		How do human processes and systems change spatially and temporally at a variety of scales?
Threshold Concepts	<p>The coast is shaped by a number of physical processes. When the wind blows over the sea, it creates waves. The size and energy of the wave depends on factors including the fetch, the strength of the wind and how long the wind has blown.</p> <p>A constructive wave is a powerful wave with a strong swash (the water that rushes up the beach) that surges up a beach.</p> <p>A destructive wave is a wave that is formed by a local storm that crashes down onto a beach and has a powerful backwash.</p> <p>Weathering is the coastal process where exposed rocks are broken down. This can be mechanical, chemical or biological.</p> <p>Rockfall, mudslide, landslide and rotational slip are all forms of mass movement where sediment moves downhill due to gravity.</p> <p>Cliffs along the coastline do not erode at the same pace. When a stretch of coastline is formed from different types of rock, headlands and bays can form. A headland is a rocky coastal promontory (high point of land) made of rock that is resistant to erosion; headlands lie between bays of less resistant rock where the land has been eroded by the sea. A bay is a wide coastal inlet, often with a beach, where areas of less resistant rock have been eroded by the sea.</p> <p>A spit is an extended stretch of sand or shingle jutting out into the sea from the land. Spits occur when there is a change in the shape of the landscape or there is a river mouth.</p> <p>Coastal management strategies that are used to defend coastal environments can be divided into three different approaches: hard engineering, soft engineering and managed retreat.</p>		<p>The population of cities usually changes in one of two ways:</p> <ol style="list-style-type: none"> 1. Natural increase (or decrease) – this is the difference between the number of births and the number of deaths. 2. Migration – this is the movement of people into or out of the city. <p>More and more people are leaving rural areas and moving to cities. This is called rural to urban migration. People move because of push and pull factors. Push factors are things that make people want to leave rural areas and pull factors are the things that attract people to the city.</p> <p>Brazil is an example of a newly emerging economy (NEE). Each year thousands of people move to the city of Rio de Janeiro from rural areas because of several pull factors.</p> <p>A problem of rapid rural to urban migration is the development of squatter settlements. In Rio de Janeiro, there are up to 1000 of them. The squatter settlement of</p>

			Rocinha is the largest in Rio de Janeiro and is now estimated to be home to over 225 000 people.
Link to Prior Learning	Students have acquired basic knowledge of coasts and coastal processes during the Year 8 course. This unit builds on that work with a more in-depth study of the physical processes as well as a wider range of coastal environments and management schemes.		Students will have acquired basic settlement and population change knowledge from across topics from KS1 – KS3. Students are introduced to new terminology and thinking through a focused study of Brazil and Rio De Janeiro, and other selected cities from across the world.
Year 10	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
Unit Title	Urban Issues and Challenges – Urban Change in the UK & Urban Sustainability	The Living World – Ecosystems & Tropical Rainforests	The Living World – Hot Deserts
Key Question(s)?	How do human processes and systems change spatially and temporally at a variety of scales?	How do ecosystems change and how do people interact with them at a range of scales?	How do ecosystems change and how do people interact with them at a range of scales?
Threshold Concepts	<p>Urban areas in the UK have experienced significant change and face many social, economic and environmental opportunities and challenges, including regeneration and urban sustainability.</p> <p>Regeneration describes improving run-down areas by improving the housing and the environment.</p> <p>Urban regeneration describes the reversing of urban decline by modernising or redeveloping, aiming to improve the local economy.</p> <p>Urban development creates significant environmental challenges, including dereliction, building on greenfield spaces, the disposal of waste and atmospheric pollution.</p>	<p>Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components. An ecosystem is a natural environment and includes the flora (plants) and fauna (animals) that live and interact within that environment.</p> <p>Ecosystems are very sensitive to change. The living and non-living components of the ecosystem can be altered by either natural factors or human management.</p> <p>The freshwater pond ecosystem is finely balanced because of the food chain and the food web. A food chain shows how each living thing gets food. In a food chain, energy and nutrients are passed from one organism to the next.</p> <p>The distribution of large-scale ecosystems (biomes) is determined by climate.</p> <p>Latitude is one of the most important factors in determining global climate patterns. In the lower latitudes, such as the tropics, temperatures are the highest. This is because the sun's rays travel a shorter distance to</p>	<p>Hot deserts are an important ecosystem with distinct characteristics and adaptations. They provide opportunities for development but also cause challenges such as desertification.</p> <p>Hot deserts have an extreme climate and challenging environment. There is very little biodiversity in hot deserts because of the harsh climate. Few species are specialised enough to survive there. Plants and animals which do survive there have adapted to difficult conditions. The biotic or living components and the abiotic or non-living components of the hot desert rely on one another - a change in one will lead to a change in the other.</p> <p>The Thar Desert is located in northwest India. It is one of the major hot deserts of the world with the highest population density. Many people living in this desert are subsistence farmers but with increasing development opportunities.</p>

		<p>the Equator and are therefore more concentrated.</p> <p>The tropical rainforests of the Amazon basin face the threat of deforestation.</p>	<p>Areas on the fringe of hot deserts are at risk of desertification. Desertification is the process of land turning into desert as the quality of the soil declines over time.</p>
Link to Prior Learning		<p>Students have learnt the basics of what ecosystems and biomes are in primary school and will have had the opportunity to study a small ecosystem such as a pond in their local area. Rainforests are the focus of the first of two major biomes to be studied in this topic.</p>	<p>This unit follows on from the previous unit where students were introduced to biomes and rainforests. This unit allows them to compare and contrast two very unique and different biomes through a focus on a hot desert environment.</p>
Knowledge and Sequencing Rationale	<p>Our Year 10 course is designed to allow students to make rapid progress through a significant amount of their GCSE course during the academic year. The structure and content are designed to challenge and engage our students with a mixture of both physical and human geography, which are alternated systematically to engage and encourage our students to think more synoptically about the themes and issues covered. The focus of this year is to also study compulsory fieldwork elements of the course alongside the classroom-based activities.</p>		