Year 9: Bridging Unit - Physical Landscapes
Summer term 2 term (6 weeks):

Why are we studying this unit of work? This unit builds on pupils' locational knowledge that was built in KS3. It is designed to stimulate a sense of awareness in the magnitude of issues faced due to physical landscapes within the UK. It allows pupils to develop their understanding of processes and the landforms these can create. As well as developing an understanding of managing physical landscapes and the challenges that this brings.
How does this unit build on students' prior learning? This unit builds on the foundations that have been introduced at KS3 during the World of Water and Rocky world unit. It builds upon the basic knowledge and understanding of physical landscapes, which is needed to make complex links between processes and the challenges these bring in terms of managing these landscapes. In year 9 pupils have already developed an understanding of Tourism and can connect this knowledge to the opportunities and challenges created in these areas and the implications of Tourism when making management decisions.
How does this unit provide a foundation for future learning? This will provide a deepened knowledge of physical processes, landforms and management strategies which will link to the Coasts and Rivers section of the Physical Landscapes in the UK unit at GCSE.

SMSC/Careers: Moral decisions – management strategies. Discussion and debate. Environmental agency, Engineering - management, Urban Planning, Architect, Water agency, Tourist Industry.

Summative assessment: End of unit assessment, a range of Geographical skills and understanding of key terminology.

End points:
Lower ability: Students can: Understand a number of physical processes which shape physical landscapes. Explain wave types and characteristics. Explain Coastal processes, including: weathering processes – mechanical, chemical, mass movement – sliding, slumping and rock falls, erosion – hydraulic power, abrasion and attrition, transportation – longshore drift, Deposition – why sediment is deposited in coastal areas. Identify distinctive coastal landforms are the result of rock type, structure and physical processes. Explain different management strategies can be used to protect coastlines from the effects of physical processes. Pupils will use subject specific vocabulary such as erosion, longshore drift, deposition.

Middle ability: In addition to the basic response students can: Explain how geological structure and rock type influence coastal forms. Give detailed explanations of the characteristics and formation of landforms resulting from erosion – headlands and bays, cliffs and wave cut platforms, caves, arches and stacks. Give detailed explanations of the characteristics and formation of landforms resulting from deposition – beaches, sand dunes, spits and bars. Assess the costs and benefits of the following management strategies: • hard engineering – sea walls, rock armour, gabions and groynes • soft engineering – beach nourishment and reprofiling, dune regeneration • managed retreat – coastal realignment. Pupils will use subject specific vocabulary as above with the addition of more complex terminology such as hard and soft engineering, realignment, reprofiling.

Higher ability: In addition to the clear response student can: Provide an example of a section of coastline in the UK to identify its major landforms of erosion and deposition. Evaluate an example of a coastal management scheme in the UK to show: • the reasons for management • the management strategy • the resulting effects and conflicts. Pupils will use subject specific vocabulary as above with the addition of more complex terminology such as concordant and discordant coastline.

Literacy Focus:

- SPaG focus – Grammar
- Vocabulary – Frayer / PUSH
- Oracy – Group discussion
- Writing – Sentence structure

- Reading – Summarising

Time	Non negotiables			Adapt to the needs of the class	
	Key Idea	Content	Key Vocabulary / Case Study	Suggested approaches to learning and resources	Assessment/Cross-Curriculum links/homework
1	Where are the UK's physical landscapes located? (1 lesson)	Know more: An overview of the location of major upland/lowland areas and river systems. Do more: Demonstrate Geographical skills. Go further: Problem solving		Connect: Knowledge, skills, vocab recall Content: Atlas work – find and locate the mountain ranges, rivers, and coasts, add these to the blank map of the UK and label. Use a key to show rivers and Mountains. Check point: Misconceptions of physical landforms. Consolidation: Exam question regarding distribution. Consolidation: Quiz Challenge: Support: Notes:	
2.	Which physical processes shape the coast? (2 lessons)	Know more: Wave types and characteristics. Coastal processes – recap and build upon those taught at KS3. Weathering – mechanical, chemical	PUSH: Weathering	Lesson 1: Connect: Knowledge, skills, vocab recall Content: PUSH – Weathering. Map from memory – draw and label diagrams of constructive and destructive waves. Peers teach mass movement and weathering – timed activity then teach peer.	Peer-assess Chemistry/Biology – acid rain, corrosion/solution processes, biological and chemical weathering Practise exam question – Weathering

		Mass Movement – sliding, slumping and rock falls Erosion – hydraulic power, abrasion, and attrition. Transportation – longshore drift Deposition – why sediment is deposited in coastal areas. Do more: Explain how coastal processes effect the coastline. Go further; Aim higher – skills to provide justifications/reasons		Checkpoint: Misconceptions on types of waves – locations do not have one type of wave. Consolidation: Explain how weathering and mass movement effects the coastline. Peer-assess – improve with green pen. Consolidation: Exit Ticket Challenge: Support: Notes: Lesson 2: Connect: Knowledge, skills, vocab recall Content: Mind map – recap from KS3 everything pupils remember about erosion. Teacher recap processes while pupils draw and annotate diagrams to represent each process of erosion. YouTube clip – longshore drift – summarise the process of longshore drift. Link Longshore Drift to deposition. Types of transportation Checkpoint: Misconceptions between transportation and erosion process. Concentration: Explain how waves transport sediment. Consolidation: Exit ticket Challenge: Support:	Exit Ticket

				Notes:	
3.	Which landforms are created at the coast due to erosion? (1 lesson)	Know more: How geological structure and rock type influence coastal forms. Characteristics and formation of landforms because of erosion – headland and bays, cliffs, wave cut platforms, caves, arches, and stacks. Do more: Explain how coastal erosion created coastal landforms. Go further: Teamwork: discussions in Teams to identify geological structure.		Connect: Knowledge, skills, vocab recall Content: Images – Identify the difference? Why one is more eroded than the other – Think, pair, share - ideas as a class and discuss geological structure (more and less resistant rock type). Link to headlands and bays – pupils to draw a quick diagram and annotate to show how these are formed. YouTube clip – wave-cut platform. Recap the formation of cave, arch, and stacks. Pupils to annotate image. Checkpoint: Misconceptions on erosion rates with rock type. Concentration: Explain how one erosional landform is created. Self-assess. Green pen. Consolidation: 5,3,1 Challenge: Support: Notes:	Live
4.	Which landforms are created at the coast due to deposition? (1 lesson)	Know more: Characteristics and formation of landforms because of deposition – beaches, sand dunes, spits, and bars. An example of a section of coastline in		Connect: Knowledge, skills, vocab recall Content: Table – split into four, use the information to complete an annotated diagram and 50-word description of the formation of beaches, sand dunes, spits, and bars. Locate Swanage – write a short paragraph to describe its location.	

		the UK to identify its major landforms or erosion and deposition. Do more: Explain how deposition can create coastal landforms. Go further: Problem solving – interpret different sources to gather evidence.		Identify the landforms shown on the image. Corners – complete the activities in each of the corners of the room in the allocated time. Activities mix of images, maps, and OS maps to identify depositional and erosional landforms, rock types etc. (refer to GCSE textbook). Checkpoint: Misconceptions on how deposition occurs. Concentration: Explain how one depositional landform is created. Consolidation: Quiz Challenge: Support: Notes:	
5.	How can the coast be managed? (2 lessons)	Know more: The costs and benefits of using hard engineering to manage the coast – sea walls, rock armour, gabions, and groynes. Do more: Explain using evidence why hard engineering strategies are effective. Go further: Aim Higher – justifying decisions. Know more: The costs and benefits of using soft engineering to manage the coast –	Frayer model: Engineering Root meaning: From the Latin word 'Ingeniare' meaning to contrive, devise.	Lesson 1: Connect: Knowledge, skills, vocab recall Define hard engineering. Class discussion – green pen definition. Pupils to complete first part of worksheet – hard engineering using the information sheets, to note the costs and benefits of each strategy. Checkpoint: Misconceptions on engineering 'stopping waves hitting the cliff. Concentration: Explain why some people may believe hard engineering is the most effective method of protecting the coastline from erosion. Consolidation: Exit Ticket Challenge: Support:	Self assess Engineering – coastal management links to soft and hard engineering strategies. Practise exam question - Engineering

		beach nourishment, and reprofiling, dune regeneration. Manage retreat – coastal realignment. Do more: Evaluate the most effective way to manage coastal erosion. Go further: Aim Higher – evaluate skill. **Managed retreat – coastal realignment**		Notes: Lesson 2: Connect: Knowledge, skills, vocab recall Define soft engineering. Class discussion – green pen definition. Pupils to complete the second part of the worksheet – soft engineering using the information sheets, to note the costs and benefits of each strategy. Checkpoint: Misconceptions about managed retreat – it's not free – pay compensation. Concentration: Which strategies (hard or soft engineering) do you think are the best method to protect the coastline from erosion? Self-assess. Consolidation: Summarise your learning in 30 words. Challenge: Support: Notes:	
6.	How is the coastline at **Lyme Regis** being managed? (2 lessons)	Know more: The reasons for management and the strategies used. The effects and conflicts linked to the chosen management strategies. Do more: Assess the extent in which soft engineering is the best		Lesson 1: Connect: Knowledge, skills recall Content: Location. YouTube clip – why does Lyme Regis need protecting? Management along the Lyme Regis coast – Smart reader on management. Why are these strategies used? Checkpoint: the effectiveness of management strategies.	Exit Ticket English and Geography to use similar vocab when answering evaluation questions/writing. Live

		management to reduce conflict. Go further: Aim Higher: Assess skill.		Positive and negative of management at Lyme Regis – image – speaking app. How can these cause conflict? Discussion – speaking app. Concentration: Exam question – In areas where tourism is the main income, soft engineering is the best way to manage the coast. Do you agree? Consolidation: Exit ticket Challenge: Support: Notes:	