Geography

Year 10: Coastal Landscapes in the UK

Assessment Opportunities	Literacy/Reading opportunities	CEIAG Links
During each topic students complete a mid-unit knowledge test based on the unit knowledge covered. Students also complete an end-of unit assessment which includes key vocabulary, knowledge questions, geographical and extend writing. During the year, students complete a mid-year and end-of year assessment which assesses students on all content covered.	Tier 2 vocabulary is identified on page 2/3 of this SOL in the key knowledge list and is shown in *italics*. Tier 3 vocabulary is identified on page 2/3 of this SOL in the key knowledge list and is shown in **bold**. Reading opportunities take place regularly throughout all Geography schemes of learning. Extended writing opportunities take place regularly throughout all Geography schemes of learning. This is identified within this SOL (highlighted in yellow).	Use of satellite images. Use of different forms of maps and mapping tools. Links to environmental management and hydrology made throughout topic – how do we protect and manage river environments? Environment and agriculture Science/ environmental management/ Engineering/ flood risk engineering/ decision making/ hydrologist

Curriculum vision:

"Our aim is to deliver a curriculum that is inclusive, relevant and progressive for all learners."

UNIT TITLE: River landscapes in the UK

<table>
<tr>
<td>Estimated Lesson Breakdown
1) The shape of a river from source to mouth
2) How fluvial processes change downstream
3) The geography of the River Tees
4) Formation of features in the upper course
5) Formation of features in the middle course
6) Formation of features in the lower course
7) Diagnostic/therapies
8) The causes of flooding
9) Using hydrographs
10) Flood management 1
11) Flood management The Thames Jubilee Flood Relief Scheme
12) Assessment Snapshot</td>
<td>Assessment
Lesson 7 – Diagnostic/therapies (KB1, KB2).
Lesson 12: Assessment Snapshot (KB1, KB2, KB3, KB4)

Practice Exam Questions
Lesson 5 – Explain how fluvial processes lead to the formation of features in the middle course of a river (6 marks).
Lesson 9 – Using the hydrograph, explain the factors that lead to river flooding (6 marks)

Skills Coverage
OS1-11 – Ordnance Survey Maps
P1 – compare maps with photographs
P2 – Photographs: use and interpret ground, aerial and satellite photographs
P3 – Describe physical landscapes from photographs
P4 – Draw sketches from photographs
P5 – Label and annotate diagrams, maps, graphs, sketches and photographs.</td>
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<td>Notes
•</td>
<td>Knowledge Stands/Links to Previous Learning
Geomorphic change:
• 7.4 Why is Anglesey’s coastline dramatic? – How different coastal processes work to change the landscape
• 8.2 How has the shape of Snowdonia changed over time? – erosion and weathering processes and their role in forming unique landscapes
• 9.4 Why is York prone to flooding? The processes leading to flooding, the hydrological cycle and features of drainage basins.</td>
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<tr>
<td>Specification Content</td>
<td>Teaching List – Key words in bold
Tier 2 words in Bold/italics</td>
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<td>The long profile and changing cross profile of a river and its valley.

Fluvial processes:

erosion – hydraulic action, abrasion, attrition, solution, vertical and lateral erosion
transportation – traction, saltation, suspension and solution
deposition – why rivers deposit sediment.</td>
<td>KB1
• Definitions of long profile and cross profile
• The characteristics of the long and cross profile in the upper, middle and lower course of the river.
• Reasons why the shape of the river and valley changes as a river travels downstream
• The different types of erosion, transportation and reasons for deposition.
• How the size of sediment changes as a river travels downstream.
• How velocity and sediment size influences processes as a river travels downstream.</td>
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Characteristics and formation of landforms resulting from erosion – interlocking spurs, waterfalls and gorges. Characteristics and formation of landforms resulting from erosion and deposition – meanders and ox-bow lakes. Characteristics and formation of landforms resulting from deposition – levées, flood plains and estuaries. An example of a river valley in the UK to identify its major landforms of erosion and deposition.	**KB2** • How different processes lead to the formation of river features in the upper course. • How different processes lead to the formation of river features in the middle course. • How different processes lead to the formation of river features in the lower course. • The features of The River Tees, how it's geology changes as it flows downstream and the influence this has on the formation of its features.
How physical and human factors affect the flood risk – precipitation, geology, relief and land use. The use of hydrographs to show the relationship between precipitation and discharge. The costs and benefits of the following management strategies: hard engineering – dams and reservoirs, straightening, embankments, flood relief channels soft engineering – flood warnings and preparation, flood plain zoning, planting trees and river restoration. An example of a flood management scheme in the UK to show: why the scheme was required the management strategy the social, economic and environmental issues.	**KB3** • The difference features of a **drainage basin (source, mouth, tributary, confluence, watershed).** • Definitions of **discharge, channel capacity and river flooding.** • How precipitation, rock type, ***relief*** and land use all affect **river discharge** and **lag time.** • The features of **flood hydrographs: lag time, peak discharge, peak rainfall, rising and falling limb.** • Compare the shapes of flood hydrographs and the link to processes that affect river discharge. **KB4** • The different types of river management (see list, left) • The costs and benefits of different **hard and soft river management strategies** • River management – Thames Flood Relief channel including the different reasons why the management is needed.