

# Edexcel GCSE Geography A Scheme of Work

## Component 1, Topic 1: The changing landscapes of the UK

### Introduction

Edexcel GCSE Geography A Geographical Themes and Challenges offers a thematic approach to studying geography and the content is split by physical and human geography. As with all GCSEs, the guided learning is 120 hours over 2 years for the full course. This document provides a sample Scheme of Work for teaching Component 1, Topic 1 that can be adapted by centres to fit their timetabling and staffing arrangements. It is meant as an example approach only and is not intended to be prescriptive. This Scheme of Work follows the order of the content in the Geography A specification. This document can be edited and updated over time to develop a resource bank. The Scheme of Work contains suggestions for resources that you can use to support your teaching and has been divided into individual lesson ideas. These are only suggestions of material you may find useful and you are encouraged to use a wide range of resources that suit the needs of your students. Pearson is not responsible for the content of external websites.

### Overview of Component 1

- Component 1 is worth 37.5% of the GCSE.
- All students are required to study 3 topics.
- Topic 1: The changing landscapes of the UK.
- Topic 2: Weather hazards and climate change.
- Topic 3: Ecosystems, biodiversity and management.
- You need to allow roughly 45 hours to teach Component 1 and roughly 15 hours to teach each topic.

Component 1 will be assessed in Paper 1, which is worth 37.5% of the GCSE assessment and is 1 hour 30 minutes in duration. The paper is marked out of 90. The sample assessment materials can be used for question practice to enable students to build up the confidence and skills as part of their revision and exam practice.

### Health and safety

The practical work and fieldwork suggested within the scheme of work are those which we believe are not banned or restricted in any way and are still currently used in most schools and colleges. We advise teachers and technicians to discuss the merits of the suggested practical work and fieldwork when deciding both which will be carried out and how they will be carried out. You may have ideas for practical work and fieldwork which we have not suggested but would work just as well. As with all practical work and fieldwork, a risk assessment is expected as part of good health and safety practice in all centres. Reference to health and safety in the field is made in the specification.

## Scheme of Work for Component 1, Topic 1: The changing landscapes of the UK

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
2 lessons (2 hours) Introductory week, making links with Key Stage 3.					
<b>Compulsory topic 1: overview of the UK's physical landscapes</b>					
1 lesson (1 hour)	<p><b>Key Idea 1.1:</b> Understand there are geological variations within the UK.</p> <p><b>Suggested learning objectives:</b> To know the distribution of the UK's main rock types: sedimentary, igneous and metamorphic.</p> <p>To understand the characteristics of the UK's main rock types: sedimentary, igneous and metamorphic.</p> <p><b>Skills objective:</b> To know how to describe a distribution on a map.</p>	<p><b>1.1a</b> Characteristics and distribution of the UK's main rock types: sedimentary (chalk and sandstone) igneous (basalt and granite), metamorphic (schists, slates).</p>	UK and local	Geological maps	<p><b>Starter</b> Display a geological map of the UK like the one at: <a href="http://www.thegeologytrusts.org/pub/our-earth-heritage/gb-ipr_123-16ctgeologymap/">http://www.thegeologytrusts.org/pub/our-earth-heritage/gb-ipr_123-16ctgeologymap/</a></p> <p>Ask students to describe the distribution of the UK's geology. Students describe the distribution using the following guidance:</p> <p><b>PQE technique (the general pattern, qualifications, exceptions).</b> Provide a model answer and get students to peer assess their answers using a marking grid.</p> <p><b>Main activity</b> Show students the series of video clips on the different types of rocks:</p> <p>Sedimentary rocks</p> <ul style="list-style-type: none"> <li>• What material makes sandstone?</li> <li>• What material makes chalk?</li> </ul> <p>Igneous rocks</p> <ul style="list-style-type: none"> <li>• What are the two types of igneous rocks?</li> <li>• Why do some rocks have larger crystals?</li> </ul> <p>Metamorphic rocks</p> <ul style="list-style-type: none"> <li>• What changes rocks in contact metamorphism?</li> <li>• What changes rock in regional metamorphism?</li> </ul> <p>Students produce a mind map to demonstrate their understanding.</p> <p><b>Plenary</b> <i>Can you guess?</i> – give students statements related to the three main rock types. Using coloured cards (one for each</p>

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					type of rock), read the statements and ask students to hold up the correct card.
1 lesson (1 hour)	<p><b>Key idea 1.1:</b> There are geological variations within the UK.</p> <p><b>Suggested learning objectives:</b> To know the location and key features of distinctive UK upland and lowland landscapes. To understand the role of geology and past tectonic processes in the development of upland and lowland landscapes.</p> <p><b>Skills objective:</b> To know how to use simple geological cross sections to show the relationship between geology and relief.</p>	<p><b>1.1b</b> The role of geology past tectonic processes in the development of upland (igneous and metamorphic rocks) and lowland (sedimentary rocks) landscapes.</p>		Using simple geological cross sections to show the relationship between geology and relief.	<p><b>Starter</b> Show this picture of Haytor to the whole class: <a href="http://www.devon.gov.uk/geo-dartmoorgranite.pdf">http://www.devon.gov.uk/geo-dartmoorgranite.pdf</a> Ask students to explain to their partner how they think this was formed.</p> <p><b>Main activity</b> Using: <a href="http://www.devon.gov.uk/geo-dartmoorgranite.pdf">http://www.devon.gov.uk/geo-dartmoorgranite.pdf</a>, read the brief description and geological detail with the whole class. Students should then draw an annotated diagram to show how a batholith was formed. Use the cross section of the North of England (<a href="https://community.dur.ac.uk/es.internal/virtearth/Continents/europe/uk/Lake%20District/Lake%20District.htm">https://community.dur.ac.uk/es.internal/virtearth/Continents/europe/uk/Lake%20District/Lake%20District.htm</a>) to show how igneous intrusions and Batholiths have created highland areas.</p> <p><b>Plenary</b> <i>A plenary pyramid</i> – Students complete the following activity to review their learning of longshore drift:</p> <ul style="list-style-type: none"> <li>• One question you are left with</li> <li>• Two concepts you understand that you didn't know before</li> <li>• Three new pieces of vocabulary you now know and what they mean.</li> </ul>
1 lesson	<p><b>Key idea 1.2:</b> A number of physical</p>	<p><b>1.2a</b> How distinctive upland and lowland</p>	Lake District	Locating key physical	<p><b>Starter</b></p>

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(1 hour)	<p>and human processes work together to create distinct UK landscapes.</p> <p><b>Suggested learning objectives:</b></p> <p>To know how a number of physical and human processes work together to create distinct UK landscapes.</p>	landscapes result from the interaction of physical processes (glacial erosion and deposition, weathering and climatological, post-glacial river and slope processes).		features (uplands, lowlands, basins, rivers) on outline UK maps.	<p><i>Definition review</i> – Students define the different types of rocks igneous, metamorphic and sedimentary.</p> <p><b>Main activity</b></p> <p>Read the information sheet: <a href="http://www.lakedistrict.gov.uk/learning/geology">http://www.lakedistrict.gov.uk/learning/geology</a> with the class and ask the following questions.</p> <ul style="list-style-type: none"> <li>• What is the main rock type of the Lake District?</li> <li>• What is the main land feature found in the Lake District?</li> </ul> <p>Introduce the idea of U-shaped valleys and ribbon lakes. Ask students to use a map of the lake district, like the one at: <a href="http://www.lakedistrict.gov.uk/_data/assets/image/0019/172027/mws-map-all-routes-1-nov-20.jpg">http://www.lakedistrict.gov.uk/_data/assets/image/0019/172027/mws-map-all-routes-1-nov-20.jpg</a>, to answer the following question: what evidence is there that the lake district is formed from glaciers?</p> <p>Explain to students how scree is formed, then use the picture at: <a href="http://www.geol Soc.org.uk/ks3/qs/education/resources/rockcycle/page3715.html">http://www.geol Soc.org.uk/ks3/qs/education/resources/rockcycle/page3715.html</a> to show an example of scree. Students should explain how this current process will change the shape of a U-shaped valley.</p> <p><b>Plenary</b></p> <p>Watch the clip below until 1:02, and then ask students why the lower course of a river is flat?</p> <p><a href="http://www.bbc.co.uk/education/clips/z7s8q6f">http://www.bbc.co.uk/education/clips/z7s8q6f</a></p>
1 lesson (1 hour)	<p><b>Key idea 1.2:</b></p> <p>A number of physical and human processes work together to create distinct UK landscapes.</p>	<p><b>1.2b</b> How distinctive landscapes result from human activity (agriculture, forestry, settlement) over time.</p> <p><b>Key words:</b></p> <p>Agriculture Forestry</p>		Recognition of physical and human geography features on 1:25000 and 1:50000 OS maps.	<p><b>Starter</b></p> <p><i>A map symbols test</i> - Using a white board or paper, draw and hold up the following symbols: coniferous wood, buildings, scree and motorway.</p> <p><b>Main activity</b></p> <p>Provide a series a fact cards on farming and spring-line settlements in the South Downs National Park, highland forestry in the Yorkshire Dales and tourism in Cheddar Gorge.</p>

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	<p><b>Suggested learning objectives:</b></p> <p>To have an awareness of how distinctive landscapes result from human activity over time.</p> <p>To recognise physical and human features on OS maps.</p>	Settlement			<p>Students are given a set of different tasks to present their understanding of one of the activities on UK landscapes. The set of tasks are awarded points with students working in pairs to score at least 5 points for their particular activity. Leaflet, TV advert/movie, speech, website, song or cartoon.</p> <p><b>Plenary</b> <i>Draw your learning</i> – Students illustrate what they have learnt from the lesson and use a maximum of 30 words to describe each picture.</p>
<b>Optional sub topic 1A: Coastal landscapes and processes</b>					
1 lesson (1 hour)	<p><b>Key idea 1.3:</b> A variety of physical landscapes interact to shape coastal landscapes.</p> <p><b>Suggested learning objectives:</b> To know the different types of erosion, weathering, mass movement, transport processes that happen along coastlines.</p> <p>To understand how physical processes interact to shape</p>	<p><b>1.3a</b> The physical processes at work on the coast: weathering (mechanical, chemical, biological), mass movement (sliding and slumping), erosion (abrasion, hydraulic action, attrition and solution), transport (traction, saltation, suspension and solution, longshore drift) and deposition.</p> <p><b>Key words:</b> Chemical weathering Biological weathering Mechanical weathering Sliding Slumping</p>			<p><b>Starter</b> <i>What happens next? Why?</i> Show a thought provoking image of a building almost falling in to the sea. Ask students to write what they think happens next and why.</p> <p><b>Main activity</b> Produce a set of cards on the different types of weathering, mass movement and erosion that happen along coastlines, with images.</p> <p>Divide the class in to groups of four and assign them either working on weathering, mass movement, erosion or transport processes. Hand out the packs and ask students to choose one of the cards.</p> <p>Students are then given the following task in their groups:</p> <ol style="list-style-type: none"> <li>1 Write, draw, solo – silent their chosen physical process.</li> <li>2 Share their physical process with the rest of their group.</li> <li>3 Publish a joint presentation on the wall for their processes as a group.</li> </ol> <p>Once presentations are finished one person from each group remains at the desk with their group work. The rest of the</p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	coastal landscapes.	Abrasion Hydraulic action Attrition Solution Prevailing wind Swash Backwash Acute angle Gravity			<p>class circle the room going to two of the presentations (if they did mass movement processes they would go to a table that did erosion and weathering) and listen to the explanation provided by the group representative. Students spend five minutes at each of the presentations, making notes.</p> <p><b>Plenary</b> <i>Match-up</i> – Provide a worksheet with all of the physical processes on. Students match-up each of the processes to the correct definition.</p>
1 lesson (1 hour)	<p><b>Key idea 1.3:</b> A variety of physical landscapes interact to shape coastal landscapes.</p> <p><b>Suggested learning objectives:</b> To have an awareness of how geological structure, rock types and wave action shape coastal landscapes.</p>	<p><b>1.3b</b> Influence of geological structure (concordant/ discordant, joints and faults) and rock type (hard/soft rock) and wave action (destructive and constructive waves) on landforms.</p> <p><b>Key words:</b> Joints Faults More-resistant rock Less-resistant rock Swash Backwash Wavelength Geology Discordant Concordant</p>	Dorset coastline	Use of BGS Geology maps (paper or online) to link coastal form to geology.	<p><b>Starter</b> <i>What key word am I?</i> – Give each student a card with the key terms of concordant coastlines, discordant coastlines, joints, faults, hard more-resistant rock, soft less-resistant rock, destructive waves and constructive waves.</p> <p>Students circle the room sharing their key terms with their peers. After 5 minutes students go back to their seats and write down as many of the key terms they can remember. Give another 5 minutes if necessary.</p> <p><b>Main activity</b> Set up a series of learning stations with information and images on each of the key terms. Students gather information on each of the terms in the form of a mind map.</p> <p>Provide a copy of the BGS online map of Swanage: <a href="http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=swanage&amp;gobBtn=go">http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=swanage&amp;gobBtn=go</a></p> <p>Ask students to use the BGS online map of Swanage to answer the following questions:</p> <ul style="list-style-type: none"> <li>• Why has the geology created Swanage bay?</li> <li>• Why is there a headland to the South of Swanage?</li> <li>• Why does the Southern coastline not have major bays like the one at Swanage?</li> <li>• Which coast has a discordant coastline?</li> </ul>

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					<ul style="list-style-type: none"> <li>Which coast has a concordant coastline?</li> </ul> <p><b>Plenary</b> <i>Spot the deliberate mistake</i> – Put up statements about the key terms students have investigated for the lesson and get them to spot the mistake.</p>
1 lesson (1 hour)	<p><b>Key idea 1.3:</b> A variety of physical landscapes interact to shape coastal landscapes.</p> <p><b>Suggested learning objectives:</b> To understand how the UK's weather and climate affect the rates of coastal erosion and impact on coastlines.</p>	<p><b>1.3c</b> How the UK's weather and climate (seasonality, storm frequency and prevailing winds) affect rates of coastal erosion and retreat, and impact on landforms and landscape.</p> <p><b>Key words:</b> Prevailing winds Coastal retreat</p>	Holderness Coast, East Yorkshire	Using UK weather and climate data and calculation of mean rates of erosion using a multi-year data set	<p><b>Starter</b> Display the graph at the bottom of the page: <a href="http://urbanrim.org.uk/data-summary.htm#seasonal-variation">http://urbanrim.org.uk/data-summary.htm#seasonal-variation</a> What season does most erosion happen on the Holderness coast? This task provides an opportunity to remind students how to extract data from a source effectively.</p> <p><b>Main activity</b> Internet-based activity. Provide a worksheet with a series of questions linked to the following tasks. Ask students to watch the clip at <a href="http://www.telegraph.co.uk/news/weather/10652076/Winter-storms-caused-years-of-damage-to-coastal-beauty-spots.html">http://www.telegraph.co.uk/news/weather/10652076/Winter-storms-caused-years-of-damage-to-coastal-beauty-spots.html</a> to find out how coastal erosion is measured. Ask students to look at the website <a href="http://www.nationaltrust.org.uk/article-1355824158683/">http://www.nationaltrust.org.uk/article-1355824158683/</a> to read and work out which place had the most erosion during the 2013/14 storms.</p> <p><b>Plenary</b> <i>Question to pose</i> – '<b>What factor do you think has the greatest impact on coastal landscapes and landforms?</b> <b>Justify your decision.</b></p>
1 lesson (1 hour)	<p><b>Key idea 1.4:</b> Coastal erosion and deposition create distinctive</p>	<p><b>1.4a</b> The role of erosional processes in the development of landforms: <b>headlands</b></p>			<p><b>Starter</b> <i>How does this this turn into this?</i> – Show students two images, one of a headland and one of a stack. Ask students</p>

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	landforms within the coastal landscape. <b>Suggested learning objectives:</b> To know how and why coastal stacks form.	<b>and bays (homework task), caves, arches, cliffs, stacks, wave cut platforms (homework task).</b>  <b>Key words:</b> Fault Wave-cut notch Erosion Weathering			to write what they believe causes the change. They must refer to the physical processes learnt in previous lesson.  <b>Main activity</b> Put students in to groups of four. Provide students with a series of sequence cards and images of the formation of a stack. Use clothes lines and pegs and ask students to put the cards and images in to the correct order.  Review each groups sequence through a class discussion. Ask each group to decide what causes the changes.  Show a video clip or an animation that illustrates the changes to review and consolidate understanding.  <b>Plenary</b> Students write an answer to the following extended writing task: <b>'Using an annotated diagram, explain how a coastal stack is formed'.</b>  Students swap answers and peer assess using a marking grid.
1 lesson (1 hour)	<b>Key idea 1.4:</b> Coastal erosion and deposition create distinctive landforms within the coastal landscape.  <b>Suggested learning objectives:</b> To understand how bars, beaches and spits form from	<b>1.4c</b> The role of depositional processes in the development of landforms: bars, beaches and spits.  <b>Key words:</b> Longshore drift Prevailing wind Deposition Tide Constructive waves	Slapton Ley, Devon	Recognition of coastal landforms on 1:25000 and 1:50000 OS maps	<b>Starter</b> <i>Copy and complete</i> – Students fill in the following gap fill exercise to understand how beaches are formed: <i>A _____ is an area of land between the low _____ and storm tide marks. They are made up of _____ and pebbles. Beaches are formed by _____ waves, which deposit material.</i>  <b>Main activity</b> Show a video clip to remind students about longshore drift.  Provide a blank outline drawing of a coast. Students then work in pairs to decide how a spit might be formed by drawing and annotating on the blank outline. Students could be provided the following question stems to help their thought process:

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	depositional processes.				<ol style="list-style-type: none"> <li>How will the sediment move to the end of the coastline?</li> <li>What will happen to the sediment at the end of the coastline?</li> <li>What might cause the spit to change over time?</li> </ol> <p>Review student's ideas as a class and get them to update their diagrams accordingly.</p> <p>Show a picture of Slapton Ley in Devon and get them to annotate their picture to explain how a bar forms.</p> <p><b>Plenary</b> Students answer question (2)(a) (iv) from Sample Assessment Material Geography A Paper 1: The Physical Environment</p>
1 lesson (1 hour)	<p><b>Key idea 1.5:</b> Human activities can lead to changes in coastal landscapes which affect people and the environment.</p> <p><b>Suggested learning objectives:</b> To appreciate how human activities can cause changes in coastal landscapes.</p>	<p><b>1.5a</b> How human activities (urbanisation, agriculture and industry) have affected landscapes and the effects of coastal recession and flooding on people and the environment.</p> <p><b>Key words:</b> Urbanisation Agriculture Industry</p>	<p>Coastal recession - Holderness Coastline, East Yorkshire</p> <p>Coastal flooding – The Thames Barrier</p>	Use of 1:25000 and 1:50000 OS maps, and GIS, to investigate the impact of human intervention.	<p><b>Starter</b> Use <a href="http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683&amp;y=355134&amp;scale=1&amp;layerGroups=default&amp;ep=map&amp;textonly=off&amp;lang=e&amp;topic=coastal_erosion">http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683&amp;y=355134&amp;scale=1&amp;layerGroups=default&amp;ep=map&amp;textonly=off&amp;lang=e&amp;topic=coastal_erosion</a>, search for Hornsea and zoom out to help students investigate which areas of the coastline are being protected and why. Students write a location statement for the coastline.</p> <p><b>Main activity</b> Watch the video clip <a href="http://www.bbc.co.uk/education/clips/z3p9wmm">http://www.bbc.co.uk/education/clips/z3p9wmm</a> in pairs. Person A needs to collect evidence from video that Peter Boggis is right in his actions. Person B collects evidence to show that he is wrong. They should then discuss what they have found, whilst discussing their own viewpoint. Students should write an answer to the question 'should more sea defences be built along the Holderness coast line?'</p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources								
	To understand how these changes affect people and the environment.				<p><b>Plenary</b> Peer review - Students to swap books with a partner and discuss whether they agree or disagree and why.</p>								
1 lesson (1 hour)	<p><b>Key idea 1.5:</b> Human activities can lead to changes in coastal landscapes which affect people and the environment.</p> <p><b>Suggested learning objectives:</b> To know the different types of coastal management techniques. To understand how coastal management can lead to change in coastal landscapes.</p>	<p><b>1.5b</b> The advantages and disadvantages of different coastal defences used on the coastline of the UK (hard engineering, sea walls, groynes and rip rap and soft engineering, beach nourishment and offshore reefs) and how they can lead to change in coastal landscapes.</p> <p><b>Key words:</b> Hard engineering Soft engineering</p>			<p><b>Starter</b> <i>Coastal dingbats</i> – create a number of dingbats to review different features of coasts. This could include key features like swash, backwash, stack, longshore drift, etc.</p> <p><b>Main activity</b> Introduce the idea of soft and hard engineering methods through defining the differences. Create a series of A3 fact cards with images of the different types of management techniques and place these around the room on the walls. Students then using the following table layout to circle the room and gather information on each of the techniques.</p> <table border="1" data-bbox="1361 885 1926 957"> <thead> <tr> <th>Technique</th> <th>Purpose</th> <th>Pros</th> <th>Cons</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Once students have collected the information bring them together as a class to share what they have discovered about the different management techniques. Students then decide which of the techniques are examples of soft and hard engineering. Students write a summary for which technique they believe has the greatest impact on coastal landscapes.</p> <p><b>Plenary</b> <i>Annotating images</i> – Provide a series of sketched images of the different management techniques. Students pick one of them and annotate to explain how the use of that technique causes changes to coastal landscapes.</p>	Technique	Purpose	Pros	Cons				
Technique	Purpose	Pros	Cons										
1 lesson (1 hour)	<b>Key idea 1.6:</b> Distinctive coastal	<b>1.6a</b> The significance of the location of one	Dawlish/ Dawlish Warren.	Recognition of coastal	<b>Starter (1)</b>								

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	<p>landscapes are the outcome of the interaction between physical and human processes.</p> <p><b>Suggest learning objectives:</b> To know the location of one named distinctive coastal landscape at different scales. To understand how it has been formed and the most influential factors in its change.</p>	<p>named distinctive coastal landscape within the UK (discordant, concordant, coastline of deposition, coastal retreat) including how it has been formed and the most influential factors in its change.</p> <p><b>Key words:</b> Discordant Concordant</p>		<p>landforms on 1:25000 and 1:50000 OS maps.</p>	<p><i>Locating key features</i> – Display an OS map (either 1:25000 or 1:50000) for the Dawlish coastline. Students use the map to locate key features like the groynes and spit. Students could either provide a grid references for the features or a grid reference could be provided and students find the feature.</p> <p><b>Starter (2)</b> <i>Set a question</i> – Students write a question for their partner to answer on the Dawlish coastline.</p> <p><b>Main activity (1)</b> Using either Google Earth or the Ordnance Survey digimaps software students locate the Dawlish coast on a local, national and global scale. From the maps students write a location statement, drawing evidence from their maps.</p> <p><b>Main activity (2)</b> Students produce a PowerPoint presentation on the distinctiveness of the Dawlish coastline. To help structure the presentation students answer the following key questions:</p> <ol style="list-style-type: none"> <li>1 What is the geology of the Dawlish coastline? (BGS geology maps could be used to answer this question)</li> <li>2 What physical processes have changed the Dawlish coastline?</li> <li>3 What human processes have changed the Dawlish coastline?</li> </ol> <p><b>Main activity (3)</b> Students answer the following extended writing task: <b>'Explain the factors that have caused one named coastal landscape has changed.'</b></p> <p><b>Plenary (1)</b> <i>Show and tell</i> – Students share what they have learnt so far about Dawlish.</p>

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					<p><b>Plenary (2)</b>  <i>Self-assessment</i> – Students use a mark scheme to award themselves a grade prior to the teacher marking.</p>			
<b>Optional sub topic 1B: River landscapes and processes</b>								
1 lesson (1 hour)	<p><b>Key idea 1.7:</b>            A variety of physical processes interact to shape river landscapes.</p> <p><b>Suggested learning objectives:</b>            To understand how a variety of physical processes interact to shape river landscapes.</p>	<p><b>1.7a</b> The physical processes at work in the river landscape:            weathering (mechanical, chemical and biological), mass movement (sliding and slumping), erosion (abrasion, hydraulic action, attrition and solution), transport (traction, saltation, suspension and solution) and deposition.</p> <p><b>Key words:</b>            Weathering            Erosion</p>			<p><b>Starter</b>            Students have a blank outline of a river drainage basin. Provide the key terms and students write the definitions on the diagram in the correct place.</p> <p><b>Main activity</b>            Provide a series of images and statement cards for each of the different processes. Students first match up the images and the statements for each of the processes. Review match-up exercise as a whole class.            Students produce a detailed mind map to represent the processes.</p> <p><b>Plenary</b>  <i>Question pose</i> – Students answer the following question: <b>‘Describe one way physical (freeze-thaw) weathering might have an impact on river landscapes.’</b></p>			
1 lesson (1 hour)	<p><b>Key idea 1.7:</b>            A variety of physical processes interact to shape river landscapes.</p> <p><b>Suggested learning objectives:</b>            To know the key characteristics of a river.</p>	<p><b>1.7b</b> How river landscapes contrast between the upper courses, mid courses and lower courses of rivers and why channel shape (width, depth), valley profile, gradient, discharge, velocity and sediment size and shape change along the course of a named UK river.</p>	River Dee, Wales	Use of BGS Geology maps (paper or online) to link river long profiles to geology.	<p><b>Starter</b>            Provide students with a table similar to the one shown below with the characteristics and definitions. Students have to decide what happens to each of the characteristics as you move from the source to the mouth.</p> <table border="1" data-bbox="1368 1190 2063 1230"> <tr> <td>Characteristic</td> <td>Definition</td> <td>Increases or decreases?</td> </tr> </table> <p>Review student responses and ask them to write a short sentence to say why they think these changes happen.</p> <p><b>Main activity (1)</b></p>	Characteristic	Definition	Increases or decreases?
Characteristic	Definition	Increases or decreases?						

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	To have an awareness of how river landscapes contrast between the upper, middle and lower courses.	<b>Key words:</b> Width Depth Gradient Velocity			Show a location map of the River Dee in relation to the UK and where the source and mouth can be found. Students write a location statement.  <b>Main activity (2)</b> Using the facts on the River Dee profile for the upper/ middle/ lower course students create a living graph. Provide the initial outline of the river profile and ask students to annotate the key features found along the river.  <b>Plenary</b> <i>One minute challenge</i> – Students tell their partner what they have learnt about the changing profile of the River Dee.
1 lesson (1 hour)	<b>Key idea 1.7:</b> A variety of physical processes interact to shape river landscapes.  <b>Suggested learning objectives:</b> To have an awareness of how the UK's weather and climate affect river processes and impact on landforms and landscapes.	<b>1.7c</b> How the UK's weather (short-term events such as storms and droughts) and climate affect river processes and impact on landforms and landscapes.  <b>Key words:</b> Droughts		Using UK weather and climate data	<b>Starter</b> Show the following graph on rainfall in southeast and central southern England, 1910-2014 - <a href="http://www.bbc.co.uk/news/uk-26127121">http://www.bbc.co.uk/news/uk-26127121</a> Students describe the general trend shown or are given a series of questions used to interpret the differences. For example: <i>What year experienced the lowest January rainfall?</i> <i>What is the difference between rainfall levels for 1988 and 2014?</i>  <b>Main activity</b> Ask students to use rainfall data for the UK to look at when most rain falls. Students can use <a href="http://www.metoffice.gov.uk/public/weather/climate">http://www.metoffice.gov.uk/public/weather/climate</a> to look for when the most rainfall occurs along the river Severn. Ask why 2014 was such a bad year? Use graphs from <a href="http://www.metoffice.gov.uk/climate/uk/interesting/2014-janwind">http://www.metoffice.gov.uk/climate/uk/interesting/2014-janwind</a> to provide evidence.  Discuss how the events of 2014 are becoming more frequent. Ask students to consider whether the increased frequency is linked to climate change.

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
					<p><b>Plenary</b>  <i>Scrambled phrases</i> – Put a number of scrambled phrases related to the learning for the lesson. Students put the phrases into correct sentences.</p>
1 lesson (1 hour)	<p><b>Key idea 1.8:</b>            Erosion and deposition interacts with geology to create distinctive landforms in river landscapes.</p> <p><b>Suggested learning objectives:</b>            To know the key features of river landforms.            To have an awareness of the role of processes and the influence of geology in the formation of waterfalls.</p>	<p><b>1.8a</b> The role of erosion processes and the influence of geology in the development of landforms: <b>interlocking spurs (homework task)</b>, waterfalls, and gorges and river cliff.</p> <p><b>Key words:</b>            Less-resistant rock            More-resistant rock            Overhang            Plunge pool            Retreat</p>		Recognition of river landforms on 1:25000 and 1:50000 OS maps.	<p><b>Starter</b>  <i>Process recap</i> – Show a series of images of UK waterfalls. In no more than 50 words students have to decide how they think the waterfalls were formed.</p> <p><b>Main activity</b>            Provide students with a series of images to represent the different stages in the formation of waterfalls. Students arrange the images in the correct order. Provide a separate sheet with key words and sentences on the formation. Students annotate the images with the correct key words and explanation for the processes at each of the stages.            Review responses as a class through a peer-assessed task. Ask students to consider the following points when marking their partners work:</p> <ol style="list-style-type: none"> <li>1 A full sequence</li> <li>2 At least two explanations</li> <li>3 Use key geographical terminology</li> <li>4 Make reference to physical processes.</li> </ol> <p><b>Plenary</b>  <i>Making improvements</i> – Based on the comments from their partner in the peer assessment task, students make improvements to their original piece of work.</p>
1 lesson (1 hour)	<p><b>Key idea 1.8:</b>            Erosion and deposition interacts with</p>	<p><b>1.8b</b> The role of depositional processes in the formation of <b>flood plains, levees and</b></p>	River Dee meanders.	Recognition of river landforms on 1:25000 and	<p><b>Starter</b>  <i>Annotating images</i> – Show a picture of one of the meanders along the River Dee. Ask students to decide where they think</p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources		
	<p>geology to create distinctive landforms in river landscapes.</p> <p><b>Suggested learning objectives:</b> To know the key features of river landforms. To have an awareness of the role of processes and the influence of geology in the formation of meanders and oxbow lakes.</p>	<p><b>point bar (homework task).</b></p> <p><b>1.8c</b> The interaction of deposition and erosion processes in the development of landforms (meanders, oxbow lakes).</p> <p><b>Key words:</b> Deposition River cliff Slip-off slope</p>		1:50000 OS maps.	<p>the fastest and slowest flowing water will be. Ask them to explain their choice.</p> <p><b>Main activity</b> Provide a series of images showing UK meanders. Students produce a geographical sketch of the image and label the key features of river cliff, slip-off slope, fastest flowing water, slowest flowing water, etc. Students then explain around their sketch why meanders form linking in physical processes.</p> <p><b>Plenary</b> <i>Name that river word</i> – Teacher starts with letter A and gives a word related to rivers (attrition). This is then passed on to a student who picks another letter and gives a river word and so on.</p>		
1 lesson (1 hour)	<p><b>Key idea 1.9:</b> Human activities can lead to changes in river landscapes which affect people and the environment.</p> <p><b>Suggested learning objectives:</b> To know the physical and human causes of flooding. To have an awareness of how river flooding can</p>	<p><b>1.9a</b> How human activities and changes in land use (urbanisation, agriculture and industry) have affected river processes that impact on river landscapes; the physical and human causes and effects of river flooding.</p> <p><b>Key words:</b> Urbanisation Agriculture Industry</p>	Boscastle 2004 Somerset 2004 Tewkesbury 2007	Use of 1:25000 and 1:50000 OS maps, and GIS, to investigate the impact of human intervention.	<p><b>Starter</b> <i>Asking questions</i> – Show an image from one of the UK flooding events of Boscastle 2004, Somerset 2004 and Tewkesbury 2007. Students have to create some who, what, where, why, how questions. Students swap answer with their partner who provides an answer for at least 3 of the questions.</p> <p><b>Main activity (1)</b> Reveal the different causes of flooding (physical and human) on cards. Students sort the cards into two piles, one for physical and one for human. Review answers as a class. Students then summarise the causes in a table using the information from the cards:</p> <table border="1" data-bbox="1368 1283 1895 1326"> <tr> <td>Physical causes</td> <td>Human causes</td> </tr> </table> <p>Ask students to decide which physical and human cause they believe has the greatest effect on river landscapes.</p>	Physical causes	Human causes
Physical causes	Human causes						

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	<p>affect people and the environment.</p> <p><b>Skill objective:</b> To know the key features of a storm hydrograph.</p>				<p><b>Main activity (2)</b> Show the storm hydrograph of Boscastle in 2004. Students annotate the hydrograph with the key features – rising limb, lag time and the falling limb. Teacher explains what each of these features represent.</p> <p>Students then use the data from the link to draw a storm hydrograph: <a href="http://www.floodready.co.uk/uploadedfiles/resources/Create_a_Storm_Hydrograph_for_a_Flood_Event_Activity.pdf">http://www.floodready.co.uk/uploadedfiles/resources/Create_a_Storm_Hydrograph_for_a_Flood_Event_Activity.pdf</a></p> <p>Instructions for completing this using ICT can be found at <a href="http://www.bluesquarething.co.uk/geography/hydrograph.htm">http://www.bluesquarething.co.uk/geography/hydrograph.htm</a></p> <p>Ask students to use <a href="http://www.bbc.co.uk/scotland/education/int/geog/rivers/hydrographs/">http://www.bbc.co.uk/scotland/education/int/geog/rivers/hydrographs/</a> to compare how different factors influence hydrographs.</p> <p><b>Main activity (3)</b> Students produce a newspaper article on one of the flooding events – Boscastle, Tewkesbury or Somerset, using the internet for their research.</p> <p><b>Plenary</b> Put the storm hydrograph for Boscastle and the River Severn 2007. Students answer the following question: <i>What are the similarities and differences between the two floods?</i></p>
1 lesson (1 hour)	<p><b>Key idea 1.9:</b> To understand how human activities can lead to changes in river landscapes which affect people and the environment.</p>	<p><b>1.9b</b> Advantages and disadvantages of different defences used on UK rivers (hard engineering– dams, reservoirs and channelisation and soft engineering– flood plain zoning and washlands) and how they can lead to</p>		<p>Use of 1:25000 and 1:50000 OS maps, and GIS, to investigate the impact of human intervention.</p>	<p><b>Starter</b> Students watch <a href="http://www.bbc.co.uk/news/uk-england-25511280">http://www.bbc.co.uk/news/uk-england-25511280</a> and ask students if they think the river flood defences shown are effective?</p> <p>Ask students to think for 30 seconds about how they could protect their home from river flooding, and then compare their answer with someone else.</p> <p><b>Main activity</b> Set students the following internet decision-making exercise:</p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	<p><b>Suggested learning objectives:</b> To know the different techniques used to manage rivers. To appreciate how the use of different river management techniques will have both advantages and disadvantages on river channels and the surrounding environment.</p>	<p>change in river landscapes.</p> <p><b>Key words:</b> Hard engineering Soft engineering</p>			<p>You are working as a representative for a local council and have been asked to produce a detailed overview of the different river management techniques. You have been given the following criteria for the production of your piece of work:</p> <ol style="list-style-type: none"> <li>1 State the reasons for using the different techniques along rivers</li> <li>2 Use annotated drawings to illustrate their use</li> <li>3 The potential benefits and drawbacks from each technique</li> <li>4 Your suggested rank order of how effective the different hard and soft techniques are.</li> </ol> <p>Once completed students present their presentations to the rest of the group.</p> <p><b>Plenary</b> Students are provided with a modelled incorrect answer for the following question from Geography A Sample Assessment Material, Paper 1: Paper 1: The Physical Environment Question (3)(a)(ii) <i>'Channelisation is an example of hard engineering. Explain one way channelisation helps manage river landscapes. (2 marks)'</i> Students spot the mistake and write an improved answer.</p>
1 lesson (1 hour)	<p><b>Key idea 1.10:</b> Distinctive river landscapes are the outcome of the interaction between physical and human processes.</p>	<p><b>1.10a</b> The significance of the location of one named distinctive river landscape (upland / lowland), how it has been formed and the most influential factors in its change.</p>	River Dee, Wales		<p><b>Starter</b> Show a 1:50000 OS map of the River Dee using Ordnance Survey Digimaps software. Students are then given a series of tasks to calculate grid references for specific locations.</p> <p><b>Main activity</b></p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	<p><b>Suggested learning objectives:</b> To know the location of one named river landscape. To have an awareness of the most influential factors causing change along one named river.</p> <p><b>Skill objective:</b> To understand how to locate features on an OS map using four-figure and six-figure grid references.</p>				<p>Using a series of fact cards (created by the teacher) on the physical and human changes to the river's natural course, students produce a newspaper article to summarise the changes.</p> <p><b>Plenary</b> <i>Question to pose</i> – Students write an answer to the following question: <b>'In your opinion, which change to the River Dee is having the greatest influence on its natural course?'</b></p>
<b>Optional sub topic 1C: Glacial landscapes and processes</b>					
1 lesson (1 hour)	<p><b>Key idea 1.11:</b> A variety of physical processes interact to shape upland glaciated landscapes.</p> <p><b>Suggested learning objectives:</b> To understand how glacial processes</p>	<p><b>1.11a</b> Glacial processes that once operated in the upland glaciated landscape: glacial erosion (plucking, abrasion and freeze thaw), transport (on or within the ice) and deposition.</p> <p><b>1.11b</b> Physical processes that operate on the relict upland glacial landscapes</p>			<p><b>Starter</b> <i>Describing trends</i> – Show a graph on the changes in global temperatures during the past 1 million years. Students describe the pattern of change.</p> <p><b>Main activity</b> Produce a set of cards on the different types of glacial processes. Divide the class in to groups of four and assign them either working on glacial erosion, transport or deposition. Hand out the packs and ask students to choose one of the cards. Students are then given the following task in their groups:</p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	once operated in upland glacial landscapes.	<p>of today: mechanical weathering (freeze thaw), mass movement (soil movement, and rock falls/slides). Homework task.</p> <p><b>Key words:</b> Plucking Abrasion Freeze-thaw Mechanical weathering Mass movement</p>			<ol style="list-style-type: none"> <li>1 Write, draw, solo – silent their chosen physical process.</li> <li>2 Share their physical process with the rest of their group.</li> <li>3 Publish a joint presentation on the wall for their processes as a group.</li> </ol> <p>Once presentations are finished one person from each group remains at the desk with their group work. The rest of the class circle the room going to two of the presentations (if they did mass movement processes they would go to a table that did erosion and weathering) and listen to the explanation provided by the group representative. Students spend five minutes at each of the presentations, making notes.</p> <p><b>Plenary</b> <i>Match-up</i> – Provide a worksheet with all of the glacial processes on. Students match-up each of the processes to the correct definition.</p>
1 lesson (1 hour)	<p><b>Key idea 1.11:</b> A variety of physical processes interact to shape upland glaciated landscapes.</p> <p><b>Suggested learning objectives:</b> To understand how past climate and current UK weather and climate affect processes that impact on upland</p>	<p><b>1.11c</b> How past climate and current UK weather and climate (seasonal and diurnal variations in weather) affect processes that impact on upland glaciated landscapes.</p> <p><b>Key words:</b> Seasonal Diurnal variations</p>		Using UK weather and climate data	<p><b>Starter</b> Give students a post it note to write down when they think the last glaciers covered the UK.</p> <p>Use the linked map (<a href="http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/iceAge/home.html?src=topNav">http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/iceAge/home.html?src=topNav</a>) to show the extent of glaciers in UK.</p> <p><b>Main activity</b> Read a copy of the linked article to find out answer to the starter question. (<a href="http://www.dailymail.co.uk/sciencetech/article-2543278/Britain-glaciers-18th-century-Study-reveals-ice-masses-existed-11-THOUSAND-years-later-thought.html">http://www.dailymail.co.uk/sciencetech/article-2543278/Britain-glaciers-18th-century-Study-reveals-ice-masses-existed-11-THOUSAND-years-later-thought.html</a>)</p> <p>Use the graph at <a href="http://www.metoffice.gov.uk/hadobs/hadcet/">http://www.metoffice.gov.uk/hadobs/hadcet/</a> to set a series of interpretation questions.</p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources			
	glaciated landscapes.				<p>Ask students to use a climate graph of the UK to suggest which months of the year there might be an increase of freeze thaw weathering in upland areas of UK.</p> <p><b>Plenary</b>  <i>A pyramid plenary</i> – Students complete the following activity to review their learning:</p> <ul style="list-style-type: none"> <li>a One question you are left with</li> <li>b Two concepts you understand that you didn't know before</li> <li>c Three new pieces of vocabulary you now know and what they mean.</li> </ul>			
2 lessons (2 hours)	<p><b>Key idea 1.12:</b> Glacial erosion and deposition create distinctive landforms within upland glaciated landscapes.</p> <p><b>Suggested learning objectives:</b>            To know the key features of landforms within upland glaciated landscapes.            To understand how erosional processes have created landforms within upland glaciated landscapes.</p>	<p><b>1.12a</b> The role of erosional processes in the development of landforms (truncated spurs, corries, glacial troughs, arêtes hanging valleys and roches moutonnées).</p> <p><b>Key words:</b>            Truncated spurs            Corries            Glacial troughs            Arêtes            Hanging valleys            Roches moutonnées</p>		Recognition of glacial landforms on 1:25000 and 1:50000 OS maps.	<p><b>Starter</b>  <i>Back to back</i> – Students sit in pairs back to back and are given two images to represent erosional landforms. Students take it in turn to describe their images, whilst the other attempts to draw what is being described.</p> <p><b>Main activity</b>            Students split into groups of four. Provide each group with a picture and sequence statements for the formation of one of the landforms. Each group works on their landform using the information provided, presenting the formation in their own chosen format (storyboard, poem, song, brochure, etc.).            Students then present their landform to the rest of the group. Whilst listening to each of the different presentations students fill in an overview grid like the one below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">Landform</td> <td style="width: 33%; text-align: center;">Key features</td> <td style="width: 33%; text-align: center;">How it was formed</td> </tr> </table> <p><b>Plenary</b></p>	Landform	Key features	How it was formed
Landform	Key features	How it was formed						

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
					<i>Acrostic</i> – Students write glacial landforms down the page and try to make each letter a phrase or sentence about erosional or depositional landforms.
1 lesson (1 hour)	<p><b>Key idea 1.12:</b> Glacial erosion and deposition create distinctive landforms within upland glaciated landscapes.</p> <p><b>Suggested learning objectives:</b> To understand how depositional processes have created landforms within upland glaciated landscapes. To appreciate how the interaction of deposition and erosion processes cause the development of landforms.</p>	<p><b>1.12b</b> The role of depositional processes in the development of landforms (ground and terminal moraines).</p> <p><b>1.12c</b> The interaction of deposition and erosion processes in the development of landforms (crag and tail and drumlins).</p> <p><b>Key words:</b> Ground moraines Terminal moraines Crag and tail Drumlins</p>			<p><b>Starter</b> <i>Moraine animation</i> – Students make notes on the following animation on the formation of a moraine: <a href="http://www.ngflcymru.org.uk/vtc/terminal_moraines/eng/Introduction/MainSession.htm">http://www.ngflcymru.org.uk/vtc/terminal_moraines/eng/Introduction/MainSession.htm</a></p> <p><b>Main activity</b> Provide a series of blank diagrams for the formation of ground and terminal moraines as well as crag and tail and drumlins. Students to use <a href="http://www.acegeography.com/landforms-of-deposition.html">http://www.acegeography.com/landforms-of-deposition.html</a> to investigate each of the landforms. Students should label where different types of moraine are found. Students should then annotate to explain how each type is formed.</p> <p><b>Plenary</b> <i>Gap fill</i> – Provide a story on the formation of ground and terminal moraines, crag and tail and drumlins. Students fill the gaps to complete the story.</p>
1 lesson (1 hour)	<p><b>Key idea 1.13:</b> Human activities can lead to changes in upland glaciated landscapes.</p>	<p><b>1.13a</b> How human activity (farming, forestry, settlement) have impacted on physical processes in upland glaciated landscapes.</p>			<p><b>Starter</b> <i>Copy and complete</i> – Give students the following paragraph to complete: <i>Glacial landscapes provide opportunities for human activity. Many visitors go to places like the Alps for skiing and _____ holidays. People can ski on high-altitude _____ even in the summer months.</i></p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	<p><b>Suggested learning objectives:</b></p> <p>To appreciate how human activity can impact on physical processes in upland glaciated landscapes.</p> <p>To know the advantages and disadvantages of different development projects on upland glacial landscapes.</p>	<p><b>1.13b</b> Advantages and disadvantages of development (water storage and supply, renewable energy, recreation and tourism, conservation) and how they can lead to change in upland glacial landscapes.</p> <p><b>Key words:</b> Renewable energy Recreation Conservation</p>			<p>The _____ industry is important to the economy of glacial areas.</p> <p>Glaciated landscapes provide a different opportunity, using water in glacial lakes for _____. The water is used to turn _____ which generate _____.</p> <p><b>Main activity</b> Ask students to then read through the linked activity here: <a href="http://www.bbc.co.uk/schools/gcsebitesize/geography/glaciated_landscapes/human_activity_glaciated_areas_rev1.shtml">http://www.bbc.co.uk/schools/gcsebitesize/geography/glaciated_landscapes/human_activity_glaciated_areas_rev1.shtml</a>, and then list the advantages and disadvantages of human use of upland glaciated landscapes. Students should show this as social, economic and environmental. Students can choose one way to develop the landscape or you can choose to do nothing.</p> <p>This could be developed into a class debate.</p> <p><b>Plenary</b> 3:2:1:RIQ - 3 x Recalls (Facts), 2 x Insights and 1 x Question.</p>
2 lessons (2 hours)	<p><b>Key idea 1.14:</b> Distinctive glaciated landscapes are the outcome of the interaction between physical and human processes.</p> <p><b>Suggested learning objectives:</b> To know the location of one</p>	<p><b>1.14a</b> The significance of the location of one named distinctive upland glaciated landscape in the UK (karst limestone/igneous/metamorphic) in the UK, how it has been formed and the most significant factors in its change.</p> <p><b>Key words:</b> Local scale National scale</p>	Snowdonia, North Wales		<p><b>Starter</b> <i>Locating key features</i> – Display an OS map (either 1:25000 or 1:50000) for the Snowdonia area.</p> <p>Students use the map to locate key features. Students could either provide a grid references for the features or a grid reference could be provided and students find the feature.</p> <p><b>Main activity (1)</b> Using either Google Earth or the Ordnance Survey digimaps software students locate Snowdonia on a local, national and global scale. From the maps students write a location statement, drawing evidence from their maps.</p>

Lessons	Learning objectives	Content (vocabulary, concepts, processes, ideas)	Place exemplification	Integrated skills	Teaching activities and resources
	<p>named distinctive upland glaciated landscape in the UK.</p> <p>To understand how it has formed and the most significant factors in its change.</p>	Global scale			<p><b>Main activity (2)</b> Students produce a PowerPoint presentation on the distinctiveness of Snowdonia. To help structure the presentation students answer the following key questions:</p> <ol style="list-style-type: none"> <li>1 What is the geology of Snowdonia? (BGS geology maps could be used to answer this question)</li> <li>2 What physical processes have changed Snowdonia?</li> <li>3 What human processes have changed Snowdonia?</li> </ol> <p><b>Plenary</b> <i>Self-assessment</i> – Students assess the success of their PowerPoint using a self-assessment marking grid. Students add a WWW (what went well) and an EBI (even better if) prior to the teacher marking.</p>

## Independent learning/homework

<b>Task 1</b>	<i>Revision task</i>	Students complete revision on classification of rocks and rock types in the British Isles using the link here: <a href="http://www.bbc.co.uk/schools/gcsebitesize/geography/rock_landscapes/">http://www.bbc.co.uk/schools/gcsebitesize/geography/rock_landscapes/</a> . Students should take the test at the end and make sure they screen shot or take a photo of their test result.
<b>Task 2</b>	<i>Map Skills task</i>	<p>Ask students to use a picture like the one at <a href="http://www.geograph.org.uk/photo/959035">http://www.geograph.org.uk/photo/959035</a> to show the land use of an area and how this relates to a map, and then answer the following questions.</p> <ul style="list-style-type: none"> <li>• What land uses are in the picture?</li> <li>• Where are these land uses on the map? Introduce 6 figure grid references. Students identify the land uses using grid references. Could also be done for local area.</li> <li>• Why is the valley in the middle of the picture used for forestry?</li> <li>• Why is the foreground used for agriculture?</li> <li>• Why has the farmer located his farm in this place?</li> </ul>
<b>Task 3</b>	<i>Revision task</i>	Students use <a href="http://www.ordnancesurvey.co.uk/mapzone/map-skills/map-symbols/page-one">http://www.ordnancesurvey.co.uk/mapzone/map-skills/map-symbols/page-one</a> to learn about the different map symbols found on OS maps. Students produce a map symbol booklet.
<b>Task 4</b>	<i>Annotated collage</i>	Provide students with an outline of Swanage Bay and get students to create an annotated collage to show the formation. The collage should include the following:

		<ol style="list-style-type: none"> <li>1 Shading of the different types of rock</li> <li>2 Naming of the different rock types and stating their level of resistance</li> <li>3 Labelling of the headlands and bays</li> <li>4 Annotations to explain the role of rock type in shaping the coastline.</li> </ol>
<b>Task 5</b>	<i>Storyboard</i>	Provide students with a fact sheet on the formation of wave-cut platforms. Students then produce a storyboard to represent the key stages.
<b>Task 6</b>	<i>Coastal management techniques</i>	Students research specific examples of coastlines around the UK using soft and hard engineering.
<b>Task 7</b>	<i>Revision task</i>	Students use <a href="http://geographyfieldwork.com/GeographyVocabularyGCSErivers.htm">http://geographyfieldwork.com/GeographyVocabularyGCSErivers.htm</a> to learn keywords for rivers. Students to produce a quiz of keywords to test their peers.
<b>Task 8</b>	<i>Research task</i>	Students research how v-shaped valleys and interlocking spurs are formed, producing an annotated diagram or photo provided by the teacher.
<b>Task 9</b>	<i>Research task</i>	Students research how floodplains, levees and point bar are formed, producing a PowerPoint presentation.
<b>Task 10</b>	<i>Sketch map</i>	Provide an incomplete sketch map of the River Dee. Students copy and complete the sketch map with features determined by the teacher.
<b>Task 11</b>	<i>Rivers top five</i>	Students review their learning for rivers identifying 5 aspects they are confident with and 5 aspects they need to revise further.
<b>Task 12</b>	<i>Research task</i>	<p>Students complete a research based activity on the physical processes that operate on upland glacial landscapes of today. Provide the following guidance for their research:</p> <ol style="list-style-type: none"> <li>1 Name and describe each process</li> <li>2 Explain how each process changes glacial landscapes</li> <li>3 A picture to illustrate each process.</li> </ol> <p>This could be presented as a PowerPoint presentation or mind map.</p>
<b>Task 13</b>	<i>Extended writing task</i>	<p>Students answer the following question from Geography A Sample Assessment Material, Paper 1: Paper 1: The Physical Environment Question (4) (a) (iv)</p> <p><b>'Study Figure 6. Examine how physical processes work together in the formation of the drumlin shown in Figure 6. (8 Marks)</b></p>
<b>Task 14</b>	<i>Peer quiz</i>	Students create a glaciated landscape 10 question quiz for their partner to answer at the beginning of the next lesson.