Topic: GCSE 3.1 Distinctive Landscapes: What makes Landscapes Distinctive?		Duration: 4 lessons	Composite: Unit test
Key vocabulary:	**Core knowledge Components**	**Powerful knowledge components crucial to commit to long term memory**	**Links to previous and future topics**
landscape distinctive physical human transitory element relief upland lowland structure composition impermeable permeable igneous metamorphic sedimentary resistant acidic infertile waterlogged rain-shadow arable Urbanisation settlement dry valley u-shaped valleys HEP Geology distribution	1. A landscape is an environment created by either humans, natural factors or a combination of the two – the main elements of a landscape are:- Physical – like mountains and valleys; Human – like buildings and other land uses; Water – including rivers and lakes; Living – like trees and grass and Transitory – like seasons and weather (regularly changing over time) 2. Some landscapes have elements that are unique to them eg desert areas 3. Natural landscapes are created by nature with no human interference eg mountains; a human environment is one built by people 4. Relief refers to the height of the land. The UK divides into upland (N, W) and lowland (S,E) landscapes 5. Geology refers to the rocks in a landscape. It considers how they were formed, how they are structured and their composition 6. Upland areas are mostly made of resistant igneous and metamorphic rocks so are more resistant to erosion. They have cold, wet climates due to their relief, (making them more prone to mechanical weathering) and their soils are often waterlogged and infertile. They are typically used for tourism, HEP and sheep farming 7. Lowland areas are mostly made from sedimentary rocks, which get worn eroded more quickly. Their climates are warmer and drier. Their soils are fertile and drain well. They are used for arable (crop farming) and urban areas (settlement). 8. Glaciated landscapes stretch from Scotland in the North to the Bristol Channel in the South. The ice carved u-shaped valleys and mountain peaks in the uplands and dry valleys in chalk and limestone areas in both upland and lowland areas. The uplands are used for tourism, HEP and windfarms	*A landscape is an environment created by either humans, natural factors or a combination of the two *Most natural landscapes have elements that are unique *The UK divides into upland (N, W) and lowland (S,E) landscapes *Geology, relief, climate & human activity shape landscapes *Relief rainfall makes highland areas wetter *The rain-shadow effect makes lowland areas drier *Ice covered almost all of the UK except for the South coast of England *U-shaped valleys and mountain peaks are evidence of glaciation and colder climates in upland areas	*Urbanisation - 7 UK 21st & 5 urban futures *Glaciation - 2 climate change; geological timescales *HEP - 6 Dynamic Development

Topic: GCSE 3.2a Distinctive Landscapes: What influences the landscapes of the UK?		**Duration: 4 lessons**	**Composite: Unit test**
Key vocabulary:	**Core knowledge Components**	**Powerful knowledge components crucial to commit to long term memory**	**Links to previous and future topics**
Geomorphic, erosion (hydraulic action, attrition, abrasion, solution) weathering (biological, mechanical & chemical)deposition and transportation (traction, solution, saltation, suspension) resistant, headlands, bays, caves, arches, stacks, stumps, deposition, spits, beaches, Upper course - V-shaped valleys, interlocking spurs, rapids, waterfalls, gorges, middle course – meanders, oxbow lakes. Lower course – floodplains and deltas.	1. Geomorphic (Earth changing) processes are responsible for shaping our landscapes. These include weathering (mechanical, biological & chemical), mass movement, erosion (hydraulic action, attrition, solution and abrasion) and transportation (traction, solution, saltation, suspension) and deposition. 2. Erosion can create - headlands these are usually formed of more resistant rock types than bays. If there are different bands of rock along a coastline, the weaker or softer rock, is eroded fastest. This leaves more resistant rock types, jutting out. They can then form caves, arches, stacks and stumps. 3. Deposition occurs when the sea has less energy, e.g. in sheltered bays. Coastal landforms created by deposition include spits and beaches. Longshore drift is a process of transportation that shifts eroded material along the coastline. 4. The same geomorphic processes are responsible for the creation of river landforms. Upper course river features include steep-sided V-shaped valleys, interlocking spurs, rapids, waterfalls and gorges. Middle course river features include wider, shallower valleys, meanders, and oxbow lakes. Lower course river features include wide flat-bottomed valleys, floodplains and deltas.	*Earth changing processes (Geomorphic) are responsible for shaping the landscapes of the UK – these include erosion, deposition and transportation. *Coastal landforms formed by erosion at headlands and bays, caves, arches, stacks, and stumps. Coastal landforms created by deposition include spits and beaches. *Erosion, deposition and transportation are responsible also for the creation of river landforms. A river can be divided into three different courses and there are different landforms typical to each different course – upper: waterfalls & gorges, middle – meanders and lower floodplains.	*Global hazards - 1 Flooding. * Changing climate – 2 -sea level change *UK in 21st Century – Physical Geography of the UK

Topic: GCSE 3.2b Distinctive Landscapes: What influences the landscapes of the UK? (Coasts)		Duration: 4 lessons	Composite: Unit test
Key vocabulary:	**Core knowledge Components**	**Powerful knowledge components crucial to commit to long term memory**	**Links to previous and future topics**
Coast, Jurassic, erosion, deposition, Swanage Bay, Chesil Beach, Old Harry, geology, soft rock – clay and sands, hard rock -chalk and limestone, cove, concordant, resistant, weaknesses, vulnerable, formation, spit, bar, management, mitigation, hard engineering, soft engineering, groynes, sea wall, beach replenishment, sustainable.	1. Case study Coasts - Jurassic Coast is a stretch of coastline that extends from Dorset to Devon in the south of England. Its coastline has examples of many erosional and depositional landforms. For example: Swanage is an example of a headland and bay Old Harry Rocks is an example of caves, stacks and stumps Chesil Beach there is a bar & Lulworth Cove. 2. The area around Swanage is made up of bands of hard and soft rock (Geology). The soft rock is made of clay and sands, and the hard rock is chalk and limestone. The bands of soft rock erode more quickly than those of the more resistant hard rock leaving a section of land jutting out into the sea- headland. The areas where the soft rock has eroded away, next to the headland - bays. This process created Swanage Bay. 3. Lulworth Cove is situated on the south coast of England, on a concordant coastline. The entrance to the cove is narrow where the waves have cut through weaknesses in the resistant limestone. Then the cove widens where the softer clays have been more easily eroded. At the back of the cove is a band of more resistant chalk, so erosion is slower here. 4. Old Harry Rocks are located on the headland between Swanage and Studland Bay, Dorset. The headland is made out of chalk, a hard rock. The headland juts out into the sea, so it is more vulnerable to high-energy waves. This caused the formation of Old Harry, a stack. 5. Chesil Beach is an example of a bar. Sediment has been deposited over time to form a spit. The spit has continued to join the other side. 6. Management – Hard engineering are processes that against natural processes with nature and soft engineering those which work with natural processes. Swanage has both hard and soft forms of defence: 1.8km of coastal defence works, mainly concrete or stone sea walls and timber groynes. The sea wall and groynes to the south of the bay were put in place in the late nineteenth century. Further coastal defence works were added in the 1920s - extension to the sea wall and timber groynes. Timber groynes were put in place in 2005, constructed out of certified tropical hardwood. The sand is replenished every 20 years.	*Jurassic Coast – SE England stretching from Dorset to Devon. * It is a distinctive landscape as it is unique and the landforms which are located here for example – Old Harry and Stack, Lulworth Cove and Swanage Bay. *The different geology of each location is a major reason why the different landforms are created. *Soft rock examples are clay and sands and hard rock examples are chalk and limestone. *Headlands are located in areas of hard rock and bays in those with softer rock. *Coasts can be challenging to manage as the natural processes are very powerful. Different methods are considered more sustainable than others. *Hard engineering works against natural processes and includes things like sea walls and groynes. *Soft engineering works with natural processes and includes things like beach replenishment and beach reprofiling. .	*Global hazards - 1 Flooding. * Changing climate – 2 -sea level change *UK in 21st Century – Physical Geography of the UK *Dynamic Development - 6 – economic activity. * Urban Futures – 5 – Urbanisation.

Topic: GCSE 3.2c Distinctive Landscapes: What influences the landscapes of the UK? (Rivers)		Duration: 4 lessons	Composite: Unit test
Key vocabulary:	**Core knowledge Components**	**Powerful knowledge components crucial to commit to long term memory**	**Links to previous and future topics**
Courses, long profile, upper course, source, v shaped valley, waterfall, gorges, middle course, meanders, oxbow lakes, lower, flood plain, mouth, lateral, vertical, soil creep, mass movement, impermeable, permeable, velocity, load, erosion, deposition, transportation, sediment, load, discharge, tributary, friction, precipitation, interception, infiltration, surface run off, vegetation, storm, saturated, urbanisation	1. Case study 1 – Rivers: River Severn – Source: Plylimmon Hills & mouth: Bristol. 2. Upper course landforms - Source, v-shaped valley, waterfall, gorge. Middle course: meanders (including slip off slopes and river cliffs), ox-bow lakes. Lower course: flood plain, mouth. Near the source the channel is narrow and shallow and full of angular stones, so friction with the bed and banks slows the river down. The river mainly erodes vertically, forming a V shaped valley with steep slopes, where processes such as soil creep and mass movement are active. 3. The Middle Course. As the Severn leaves the upland areas and flows downstream towards Shrewsbury, the climate changes. The rocks are softer and more permeable including sandstones, conglomerates and gravel. The river is wider and deeper. The river now erodes sideways (lateral erosion) as well as downwards, so the valley becomes wider and flatter, creating a flood plain. Deposition occurs on the inside bends of meanders and during flooding. Sediment in the river is becoming smaller and rounded. As more tributaries join the Severn, its discharge increases 4. The Lower Course - river channel is much wider, Because the channel is wide and deep there is less friction, so velocity is at its highest. Tributaries increase the discharge even more. Lateral erosion continues to widen the river. Deposition occurs, especially at the river mouth where the flow is slowed by the sea. 5. River Severn flooding - Severe floods took place in Feb 2020. Changes in the catchment area of the river. Human factors - increase in the number of impermeable surfaces as the towns like Shrewsbury. When it has a prolonged amount of rainfall, less water can infiltrate the soil, which increases the amount of surface run off - quickly so the chance of flooding increases. The area where Shrewsbury sits was once dense forest. Vegetation such as trees can intercept and 'hold' rainwater. Physical factors - The winter of 2019/2020 was one of the wettest on record. The cause was a series of Atlantic storms that lashed the whole of the UK. After months of rain the ground was saturated (wet through) and water levels were dangerously high.	*River Severn – important River in the UK : Source in North Wales and mouth in Bristol Channel. * Different landforms in different parts of the river basin (Long profile): Upper course – source, waterfalls, gorge, v - shaped valley. Middle – meanders and lower: flood plain and mouth. *Vertical erosion takes place more in upper course and lateral erosion to a greater extent in lower courses. *A river changes in characteristics as it flows downstream – getting wider, deeper, faster. The load gets smaller and more rounded. * When there is more energy in the river it erodes and when it has less it deposits. *Flooding takes place when the capacity of the river is exceeded. *Floods are caused by a combination of human and physical processes. *Settlements like Shrewsbury have been developed by humans over time and this has made them more at risk of flooding as the natural processes cannot take place to the same extent. *2020 was a year when severe floods have taken place.	*Global hazards - 1 Flooding. * Changing climate – 2 -sea level change *UK in 21st Century – Physical Geography of the UK *Dynamic Development - 6 – economic activity. * Urban Futures – 5 – Urbanisation.