Subject :	Geography	Year Group: 12
Scheme title	Coastal landscapes and change	Techtonic processes and hazards
Knowledge in sequence	Enquiry question 1: Why are coastal landscapes different and what processes cause these differences? 2B.1 The coast, and wider littoral zone, has distinctive features and landscapes. 2B.2 Geological structure influences the development of coastal landscapes at a variety of scales. 2B.3 Rates of coastal recession and stability depend on lithology and other factors. Enquiry question 2: How do characteristic coastal landforms contribute to coastal landscapes? 2B.4 Marine erosion creates Distinctive coastal landforms and contributes to coastal landscapes. 2B.5 Sediment transport and deposition create distinctive landforms and contribute to coastal landscapes. 2B.6 Subaerial processes of mass movement and weathering influence coastal landforms and contribute to coastal landscapes. Enquiry question 3: How do coastal erosion and sea level change alter the physical characteristics of coastlines and increase risks? 2B.7 Sea level change influences coasts on different timescales. 2B.8 Rapid coastal retreat causes threats to people at the coast. 2B.9 Coastal flooding is a significant and increasing risk for some coastlines. Enquiry question 4: How can coastlines be managed to meet the needs of all players? 2B.10 Increasing risks of coastal recession and coastal flooding have serious consequences for affected communities. 2B.11 There are different approaches to managing the Risks associated with coastal recession and flooding. 2B.12 Coastlines are now increasingly managed by holistic Integrated coastal zone management (ICZM).	Enquiry question 1: Why are some locations more at risk from tectonic hazards? 1.1 The global distribution of tectonic hazards can be explained by plate boundary and other tectonic processes. 1.2 There are theoretical frameworks that attempt to explain plate movements. 1.3 Physical processes explain the causes of tectonic hazards. Enquiry question 2: Why do some tectonic hazards develop into disasters? 1.4 Disaster occurrence can be explained by the relationship between hazards, vulnerability, resilience and disaster. 1.5 Tectonic hazard profiles are important to an understanding of contrasting hazard impacts, vulnerability and resilience. 1.6 Development and governance are important in understanding disaster impact and vulnerability and resilience. Enquiry question 3: How successful is the management of tectonic hazards and disasters? 1.7 Understanding the complex trends and patterns for tectonic disasters helps explain differential impacts. 1.8 Theoretical frameworks can be used to understand the predication, impact and management of tectonic hazards. 1.9 Tectonic hazard impacts can be managed by a variety of mitigation and adaptation strategies, which vary in their effectiveness.
Skills	(1) GIS mapping of the variety of coastal landscapes, both for and beyond the UK. (2) Satellite interpretation of a variety of coastlines to attempt to classify them. (3) Field sketches of contrasting coastal landscapes. (4) Using measures of central tendency to classify waves into destructive and constructive wave types. (5) Using student t-test to investigate changes in pebble size and shape along a drift aligned beach and also across the littoral zone to above the storm beach. (6) Map and aerial interpretation of distinctive landforms indicating past of sea level change. (7) Use of GIS, aerial photos and maps to calculate recession rates for a variety of temporal rates (annual changes and longer-term changes). (8) Interrogation of GIS of management cells to ascertain land use values and develop cost/benefit analysis to inform the choice of coastal management strategy. (9) Photo interpretation of a range of approaches to management to assess environmental impact. (10) Sand dune or salt marsh surveys to assess the impact of succession using an index of diversity, X^2 (Chi-square to compare features of the various zones).	(1) Analysis of hazard distribution patterns on world and regional scale maps. (2) Use of block diagrams to identify key features of different plate boundary settings. (3) Analysis of tsunami time-travel maps to aid prediction. (4) Use of correlation techniques to analyse links between magnitude of events, deaths and damage. (5) Statistical analysis of contrasting events of similar magnitude to compare deaths and damage. (6) Interrogation of large data sets to assess data reliability and to identify and interpret complex trends. (7) Use of Geographic Information Systems (GIS) to identify hazard risk zones and degree of risk related to physical and human geographical features.
Key Words	Lithology, morphology, submergent coast, emergent coast, concordant, discordant, Littoral zone, cliff profile, sub-aerial processes, dynamic equilibrium, geological structure, faults, unconsolidated sediment, geology.,haff, dalmation, morphology, sedimentary rock, igneous rock, metamorphic rock, permeable, impermeable, recession rate, temporal, hydraulic action, attrition, corrosion, abrasion, sediment cell, succession, longshore drift, tombolo, cuspate foreland, rotational slump, mass movement, terraced cliffs, tides, swash, backwash, beach morphology, blow hole, currents, destructive and constructive waves, relict coastline, fjord, raised beach, ria, isostatic, eustatic, depression, tropical cyclone, post-glacial isostatic adjustment, barrier islands, dredging, dissipation, environmental refugee, beach nourishment, cliff regrading, dune stabilisation, revetments, terminal groyne effect, inter-coastal zone management, conflict, littoral cells, shoreline management plan, strategic realignment, holistic approach	(1) Analysis of hazard distribution patterns on world and regional scale maps. (2) Use of block diagrams to identify key features of different plate boundary settings. (3) Analysis of tsunami time-travel maps to aid prediction. (4) Use of correlation techniques to analyse links between magnitude of events, deaths and damage. (5) Statistical analysis of contrasting events of similar magnitude to compare deaths and damage. (6) Interrogation of large data sets to assess data reliability and to identify and interpret complex trends. (7) Use of Geographic Information Systems (GIS) to identify hazard risk zones and degree of risk related to physical and human geographical features.
End Point	Paper 1 Section B 40 marks	Paper 1 Section A 16 marks
Assessment method	EQ1 assessment- 20 marks 20 minutes EQ2 assessment-40 mark assessment 40 minutes covering aspects of EQ1. EQ3 assessment- 60 marks 60 minutes covering EQ1 EQ2 and EQ3. EQ4 assessment- 60 marks 60 minutes, assessment based on Hazards and Coasts	EQ1 assessment- 20 marks 20 minutes EQ2 assessment-40 mark assessment 40 minutes covering aspects of EQ1. EQ3 assessment- 60 marks 60 minutes covering EQ1 EQ2 and EQ3. EQ4 assessment- 60 marks 60 minutes, assessment based on Techtonic proccesses.