

| Topic: Europe: Coasts   |  | Duration: Half Term   |   |
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| Key vocabulary:   | Core knowledge Components  | Powerful knowledge components crucial to commit to long term memory   | Links to previous and future topics   |
| Management<br>Engineering<br>Expansion<br>Stakeholder<br>Justification<br>Residential | <ul style="list-style-type: none"> <li>Coastal features include, cave, arch, stack, stump, headland, bay, beach, spit, these are determined based on the geology of the area</li> <li>Hard rock is more difficult to erode than soft rock, creating headlands and bays</li> <li>Geomorphic process involved are erosion, transportation and deposition</li> <li>Mechanical weathering – freeze thaw – Chemical Weathering – Acid Rain, Biological weathering – plants</li> <li>Erosional features created through a weathered cliff being eroded to form a cave, this erodes through a headland to form an arch. As this erodes further it becomes unstable and collapses to form a stack, which erodes and falls into the sea to create a stump.</li> <li>Sediment is transported using longshore drift, which is driven by the prevailing winds, waves travelling towards the beach are the swash and retracting from the beach is the backwash.</li> <li>. The Holderness coast is situated in the UK on the North eastern coastline, and runs along the North Sea</li> <li>Headland – Flambourgh, Bay – Swanage, Beach – Chesil, Spit – Spurn head</li> <li>The Holderness coast is home to important agricultural land, as well as being a popular tourist destination and the B1242 links all towns and villages along the coastline.</li> <li>The Holderness coast is the fastest eroding coast in Europe at 2m per year.</li> <li>There has been a sea wall, groynes (Hornsea + Mapleton).</li> <li>The sea defences have protected the towns and infrastructure however the groynes have increased the rates of erosion elsewhere along the coastline.</li> <li>Hard engineering – advantages – long lasting and very effective – Disadvantages – initially very expensive</li> <li>Soft engineering – advantages – natural and more attractive – disadvantages – less effective and often needs replenishment regularly.</li> <li>In future, rising sea levels will increase the rate of erosion around the coast and possibly lead to more towns and cities being submerged.</li> <li>Shoreline management plans – hold the line, manage retreat, do nothing, advance the line</li> </ul> | <ul style="list-style-type: none"> <li>Coastal features include, CASS, and beaches.</li> <li>Three types of weathering; mechanical, chemical and biological</li> <li>An erosional process would be a Cave- Arch- Stack- Stump.</li> <li>Longshore drift is the movement of sediment down the beach.</li> <li>The Holderness coast is in the North East of England</li> <li>The Holderness coast is an important tourist destination</li> <li>The Holderness coast is a fast eroding coastline.</li> <li>On the Holderness coast we find key features such as Spurn Head</li> <li>Coastal defences can be broken down into hard and soft engineering.</li> <li>An example of Hard engineering would be rock armour</li> <li>An example of soft engineering would be beach nourishment</li> <li>Rising sea level might increase the rate of erosion on the Holderness coast and led to more issues for these people.</li> </ul> | <ul style="list-style-type: none"> <li>Rivers – geomorphic processes</li> </ul> Link to future study of Europe – mouth of river to sea to Europe. |

| <b>Topic: North America- Natural Hazards</b>   |   | <b>Duration: Half Term</b>   | <b>Composite: Imp Writing</b>   |
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| Subduction<br>Mitigation<br>Vulnerability<br>Shield<br>Composite<br>Hot spot<br>Tectonics<br>Convection<br>Core<br>Mantle<br>Crust<br>Evacuation<br>Pyroclastic<br>Lava<br>Magma | <ul style="list-style-type: none"> <li>• North America is located in the Northern hemisphere. It is surrounded by the Pacific Ocean to the West and the Atlantic to the East.</li> <li>• 23 countries make up North America. Canada is the largest followed by USA.</li> <li>• The majority of volcanoes and earthquakes occur in a band along the west coast along the Pacific/North American plate boundary, this is called the ring of fire.</li> <li>• Hawaii is a chain of islands, made up of hotspot volcanoes. North America experiences the following tectonic hazards: earthquakes and volcanic eruptions</li> <li>• North America is located on top of the North American plate, this is a continental plate. To the West is the Pacific plate (an oceanic plate) and to the East is the Eurasian plate (continental).</li> <li>• Between the North American and Pacific plate is a conservative plate boundary; between the North American and Eurasian plate is a diverging plate boundary</li> <li>• Mt St Helens erupted in 1980 and scattered ash across 12 states.</li> <li>• Examples of tectonic hazards include earthquakes, volcanic eruptions and tsunamis, these can all be caused by different plate boundaries.</li> <li>• The Earth is divided into 4 layers: inner core; outer core; mantle &amp; crust. Tectonic hazards are caused by movements of the Earth's crust. The Earth's crust is divided into pieces called plates. These 'float' on top of the mantle, a semi molten layer in which convection currents operate. Heat from the core creates convection currents. Convection currents can cause the plates to converge (come together); diverge (move apart); slide parallel to one another or collide.</li> <li>• There is mainly ocean on the Earth's surface above an oceanic plate and land (continent) on the surface above a continental plate. Oceanic plate is more dense than continental place.</li> <li>• Earthquakes occur at conservative plate boundaries. At destructive plate boundaries volcanoes form and earthquakes can happen.</li> <li>• The main components are: main vent; secondary vent, magma chamber and crater</li> <li>• Volcanoes are either active (erupting), dormant (sleeping) or extinct (dead)</li> <li>• The type of material that is erupted affects the size and shape of a volcano. Shield volcanoes are flatter and result from gentle eruptions. Composite volcanoes are made up of layers and are formed by violent eruptions.</li> <li>• Humans can monitor volcanoes.</li> </ul> | <ul style="list-style-type: none"> <li>• North America is in the Northern Hemisphere, west of Europe</li> <li>• Most Volcanoes and Earthquakes occur on the ring of fire.</li> <li>• Hawaii is made up of volcanoes.</li> <li>• Mt St Helens, is located in Washington</li> <li>• North America frequently experiences earthquakes</li> <li>• North America lies onto of the North American plate.</li> <li>• The North American and Pacific plate is a conservative plate.</li> <li>• Mt St Helens erupted in 1980</li> <li>• Tectonic hazards include Earthquakes and Volcanoes.</li> <li>• The earth is divided into four layers, Crust, Mantle, Outer Core and Inner Core.</li> <li>• Tectonic hazards are caused by the movement of the crust, this is cause by convection currents.</li> <li>• There are two types of plate, continental and oceanic.</li> <li>• There are four types of plate boundaries, Constructive, destructive, conservative, collision.</li> <li>• Volcanoes can be found on destructive and constructive plate boundaries.</li> <li>• Volcanoes can be active, dormant or extinct.</li> <li>• Human can monitor volcanoes</li> </ul> | <ul style="list-style-type: none"> <li>• Y7 T1: My Place – continents and oceans [P]</li> <li>• Y7 T2: UK – in that we don't experience tectonic hazards [P]</li> <li>• Y8 T2: Oceania – earthquakes [F]</li> <li>• Y8 T3: Asia – formation of Himalayas [F]</li> </ul> |

