



Subject: Geography (Physical) Pre-A-level

Know It (Knowledge)	Use It (Application)	Stretch It (Development)
<p>Plate boundaries</p> <ul style="list-style-type: none"> • Constructive (divergent) • Destructive (convergent) • Collision • Conservative 	<p>Using the internet make notes on the following for each plate boundary:</p> <ul style="list-style-type: none"> • explain what happens (processes) when these plates move with examples of boundaries <p>Follow Link 1 (below) Follow Link 2 (below) Follow Link 3 (below) Follow Link 4 (below) Follow Link 5 (below)</p>	<p>Listed below are the features found at each plate boundary – explain what they are/how they are formed.</p> <p><i>Features at plate boundaries</i></p> <p>Destructive</p> <ul style="list-style-type: none"> • Accretion wedge • Ocean trench • Earthquakes in the Benioff zone • Composite volcano • Batholith • Fore arc basin • Island arc • Outer arc ridge • Marginal back basin • Fold mountains • Magma chamber <p>Constructive</p> <ul style="list-style-type: none"> • Fissures • Undersea valleys/grabens • Ocean ridge • Submarine volcanoes • Shield volcanoes • Earthquakes • Faults • Magnetic stripes <p>Collision</p> <ul style="list-style-type: none"> • Fold mountains • Plateau • Fault line • Earthquakes • No volcanoes • Landslides <p>Conservative</p> <ul style="list-style-type: none"> • Fault • Earthquakes



<p><i>Case studies:</i></p> <p>Tsunamis</p> <ul style="list-style-type: none"> • Indian Ocean 2004 • Japan 2011 <p>Earthquakes</p> <ul style="list-style-type: none"> • Christchurch 2010-2011 • Nepal 2015 • Haiti 2010 • China, Sichuan 2008 <p>Volcanic eruptions</p> <ul style="list-style-type: none"> • Nevado del Ruiz 1985 • Soufrière Hills, Montserrat 1995 • Mt Pinatubo 1992 • Eyjafjallajökull (Iceland) 2010 	<p>Throughout the unit you will need to have a clear understanding of all these tectonic disasters. Produce a case study file on each disaster including the following information:</p> <ul style="list-style-type: none"> • Plate boundary type and plates involved – explain how the tectonic event occurred. • Effects – these should include primary and secondary • Management – either what was done before (mitigation) or after (aid) and anything they have learnt from the event. <p>Follow Link 6 (below) Follow Link 7 (below)</p>	<p>Governments are key players in the vulnerability of a population.</p> <ul style="list-style-type: none"> • Community infrastructures and housing depend upon good planning. Buildings can withstand earthquakes, but not all governments enforce building or planning regulations. • Governments can do a great deal through disaster preparedness and planning. • Good financial management and decision-making enable aid and donations to reach the right people when they need it. <p>Did the governance of the country have an impact on the effects of the tectonic disaster?</p> <p>For Haiti, China and Japan identify examples of:</p> <ul style="list-style-type: none"> • Poor governance • Good governance • What actions should be taken in future?
<p>Concordant and discordant coastline</p>	<p>Using the internet produce notes including diagrams to:</p> <ul style="list-style-type: none"> • explain what concordant and discordant coastlines are using the Isle of Purbeck as the example. • explain how concordant coastlines along the Dalmatian coast in Croatia and Haff coast on the Baltic coast of Germany are formed. • explain how the discordant coast on the West Cork coast in Ireland formed. <p>Follow Link 8 (below)</p> <p>Video: Discordant and Concordant Coastlines GCSE Geography A-level Revision Coasts (YouTube)</p>	



Coastal ecosystems

- sand dunes = psammosere
- salt marshes = halosere

You will need to understand how plant succession occurs in both sand dunes and salt marshes.

Succession refers to the changing structure of a plant community over time as an area of initially bare sediment is colonised by plants.

- Where there is a supply of sediment and deposition takes place certain very specialised plants will begin to grow in the bare sand or mud. These are called **pioneer species**, and they begin the first stage of plant succession.
- Each step in plant succession is called a **seral stage**.
- The end result of plant succession is called a **climatic climax community**.

Using a diagram (find one from the internet) annotate it with the different plants that can be found at each stage and explain how they have colonised that part of the coastal ecosystem, including their adaptations.

Links to help: *Sand dunes*

Follow **Link 9** (below)

Follow **Link 10** (below)

Follow **Link 11** (below)

Links to help: *Salt marsh*

Follow **Link 12** (below)

Follow **Link 13** (below)

Follow **Link 14** (below)

Videos:

Sand dunes

Biological succession of sand dunes (YouTube) seems really old but accurate nonetheless!!!

How are Sand Dunes formed on a coast? (YouTube) – labelled diagram and explanation

Salt Marsh (YouTube)

What has colonialism got to do with this? See what you can find out.



<p><i>Case study:</i></p> <p>Holderness coastline</p>	<p>This example was studied at GCSE but is further examined at A Level. Produce a detailed set of notes on the following:</p> <ul style="list-style-type: none"> Describe where it is located and the general history of erosion. Explain why erosion is a problem at Holderness by including: <p><i>Physical factors</i></p> <ul style="list-style-type: none"> Geology Fetch Currents Weather systems Size of North Sea Depth of sea floor Longshore drift and beach material Subaerial processes <p>Follow Link 15 (below) Follow Link 16 (below)</p> <p>Videos</p> <p>Holderness Coast GCSE Geography Case Study (YouTube) Video 7 Holderness Coast erosion case study (YouTube)</p>	<p>Due to this coastline eroding rapidly different parts are defended differently. For the following locations:</p> <ul style="list-style-type: none"> Flamborough Head Bridlington Skipsea Hornsea Mappleton Cowden Withernsea Easington (gas terminal) Spurn Head Spit <p>Identify:</p> <ul style="list-style-type: none"> What is the Shoreline Management Plan (hold the Line, managed retreat etc) What management scheme(s) are put in place <i>ie.</i> sea wall, rip rap, groynes etc Explain why the area is being protected/not being protected <p>Follow Link 16 (below) Follow Link 17 (below) Follow Link 18 (below) Follow Link 19 (below)</p>
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Links to websites used in this Pre-A Activities sheet:

- Link 1: <https://pubs.usgs.gov/gip/dynamic/understanding.html>
- Link 2: <https://www.khanacademy.org/science/cosmology-and-astronomy/earth-history-topic/plate-tectonics/v/plate-tectonics-geological-features-of-divergent-plate-boundaries>
- Link 3: <https://www.khanacademy.org/science/cosmology-and-astronomy/earth-history-topic/plate-tectonics/v/plate-tectonics-geological-features-of-convergent-plate-boundaries>
- Link 4: <https://www.tutor2u.net/geography/reference/plate-tectonics-processes-and-landforms-at-plate-margins>
- Link 5: <http://www.coolgeography.co.uk/A-level/AQA/Year%2013/Plate%20Tectonics/Plate%20tectonics/Margins%20and%20landforms.htm>
- Link 6: <https://www.geography.org.uk/teaching-resources/earthquakes-tsunamis>
- Link 7: <https://www.geography.org.uk/teaching-resources/volcano-case-studies-and-resources>
- Link 8: <https://geographyrevisionalevel.weebly.com/2b2b-their-morphology.html>
- Link 9: https://www.hutton.ac.uk/sites/default/files/files/education/SoilsPosters/Soil_posters_7-Sand_Dunes_1.pdf
- Link 10: https://www.hutton.ac.uk/sites/default/files/files/education/SoilsPosters/Soil_posters_8-Sand_Dunes_2.pdf
- Link 11: <http://www.landforms.eu/Lothian/dune%20succession.htm>
- Link 12: <https://geographyalevelslc.files.wordpress.com/2012/05/a124-salt-marshes.pdf>
- Link 13: <https://geographyalevelslc.files.wordpress.com/2012/05/a124-salt-marshes.pdf>
- Link 14: http://vle.langton.kent.sch.uk/file.php/1014/Geofile_544_Salt_Marsh_Ecosystems.pdf
- Link 15: <http://www.coolgeography.co.uk/GCSE/AQA/Coastal%20Zone/Management/Holderness.htm>
- Link 16: <http://www.geography.learnontheinternet.co.uk/topics/holdernesscoast.html>
- Link 17: <https://www.eastriding.gov.uk/environment/sustainable-environment/looking-after-our-coastline/defending-the-east-riding-coastline/>
- Link 18: <https://www.dailymail.co.uk/news/article-7915305/Dozens-people-lose-east-Yorkshire-homes-coastal-erosion.html>
- Link 19: <https://www.internetgeography.net/topics/the-holderness-coast-case-study/>