

As Level Geography – Year 12

Area of Study One

Topic 1: Tectonic Plates and Hazards

Week	Lesson	Lesson Title	Key concepts	Independent Learning Student to complete as advised by teacher
1	1	The global distribution of tectonic hazards.	<ul style="list-style-type: none"> - Analysis the global distribution of earthquakes, volcanic eruptions and tsunamis. - Map Skills: Using maps at various scales to describe distribution 	
	2	Plate Boundaries	<ul style="list-style-type: none"> - Plate boundaries resulting from divergent, convergent and conservative plate movements (oceanic, continental and combined situations). 	
	3	Causes of Natural Hazards	<ul style="list-style-type: none"> - Causes of tectonic hazards - Earthquakes, volcanoes, tsunami, lahar - Case Studies 	
2	1	Global Hotspots	<ul style="list-style-type: none"> - The causes of intra-plate earthquakes, and volcanoes associated with hot spots from mantle plumes. 	

	2	Theories of Plate Movement	<ul style="list-style-type: none"> - The internal structure of the earth - Causes of plate movement; convection currents, palaeomagnetism, sea floor spreading, subduction and slab pull. - Use of block diagrams to illustrate the movement occurring at different plates boundaries and how these processes operate at different margins. (destructive, constructive, conservative, collision) 	
	3	The processes which impact the strength of tectonic hazards	<ul style="list-style-type: none"> - Processes which impact the magnitude and type of volcanic eruption. - Description of the Benioff zone and how it impacts the magnitude of earthquakes 	
3	1	Linking physical processes and the hazards they create.	<ul style="list-style-type: none"> - Explain how earthquake waves (P, S and L) cause crustal fracture, ground shaking and secondary hazards. - Description of volcanoes primary and secondary hazards (lahars, jokulhlaup or glacier run) 	
	2	The Boxing Day Tsunami	<ul style="list-style-type: none"> - Explain the causes of a tsunami - Sea bed and water column displacement. - Analysis of tsunami time travel maps on order to aid prediction 	

	3	The Boxing Day Tsunami	<ul style="list-style-type: none"> - Case Study: The Boxing Day Tsunami - Assess this event using the disaster risk equation 	
4	1	Examining the Disaster Risk Equation	<ul style="list-style-type: none"> - Define a natural hazard and disaster. - Interpret the disaster risk equation to help explain why some people are more at risk from natural hazards than others - Consider concepts such as vulnerability and capacity to cope. 	
	2	Examining the varying vulnerability to hazards	<ul style="list-style-type: none"> - The pressure Release Model (PAR) - Examine the inter-relations and wider context of Hazards - Case Study: Haiti 2010 and Christchurch 2010 	
	3	Comparing Hazards	<ul style="list-style-type: none"> - Comparing locations - California and the Philippines - Social, economic and environmental impacts 	
5	1	Development and Vulnerability	<ul style="list-style-type: none"> - Examine the extent to which access to services, income, political stability and geographical factors (population, location, urbanisation) can effect vulnerability to hazards. 	<p><i>Explain why the economic losses caused by natural hazards have generally risen over time whereas the number of lives lost has fallen. (15)</i></p>

	2	Geographical Enquiry and Skills	<ul style="list-style-type: none"> - Use of statistical data to compare the social-economic and geo-political factors which influence vulnerability to hazards. - Contrasting case studies 	
	3	The Scale of Hazards	<ul style="list-style-type: none"> - How are various hazards measured in terms of strength and impacts? (MMS, VEI, Richter Scale) - Comparing the characteristics of geo-physical hazards using hazard profiles 	
6	1	Global Hazard Trends	<ul style="list-style-type: none"> - To interpret a range of data to assess patterns and trends of geo-physical over time. - Assess the reliability and accuracy of the data used. 	
	2	Mega – Disasters	<ul style="list-style-type: none"> - Evaluating the impacts of mega-disasters on a global scale. - CASE STUDIES: E15 Iceland 	
	3	Mega – Disasters	<ul style="list-style-type: none"> - Evaluating the impacts of mega-disasters on a global scale - CASE STUDIES: Japan Tsunami 2011, Boxing Day Tsunami 	
7	1	Multi – Hazard Zones	<ul style="list-style-type: none"> - Define Hydro-metrological Hazards - Assess the risk to areas which suffer from both geo-physical and hydro-metrological hazards. 	

			- CASE STUDY: Philippines	
	2	Multi – Hazard Zones	- Comparing Case Studies: Philippines and California	
	3	Preparing for Future Hazards	- Investigate various methods to predict future geophysical hazards. - Assess the reliability and accuracy of these methods.	
8	1	Hazard Management	- Investigate the role of emergency planners. - Evaluate the importance of a range of management strategies (response, recovery, mitigation, preparedness)	
	2	Capacity to Cope	- Identify and explain different areas capacity to cope with hazards. - Using the Park Model to compare the response curve to hazards.	
	3	Adaptation or Mitigation	- To explain how different mitigation and adaptation strategies can be used to cope with the threat from hazards. - Methods used to modify the land the hazard. - Investigate the role of planners and engineers.	- Revision over the half term for end of unit assessment in week 9

			- To evaluate the costs and benefits of adaptation strategies.	
9	1	Short Term and Long Term Aid	- Investigate the role of different organisations that provide short and long term aid.	
	2	Assessment	Revision lesson	
	3	Assessment	Revision lesson	
10	1	Assessment	Revision lesson	
	2	Assessment	Exam	
	3	Assessment	Feedback and redraft	Redraft assessment corrections