

Subject	Year	Term
Geography	12	Start Autumn term 2 in to Spring term 1 and 2
Topic		
3.3.1 Hazards		
Content + skills (Intent)		
<p>Prior Learning (Topic)</p> <p>KS1/KS2- Volcanoes, earthquakes and Mountains, weather</p> <p>KS3 at Balcarras 'Violent Earth' in Year 8 looking at Earthquakes, Volcanoes, Tsunamis 'Weather the Storm' Year 8 looking at Extreme weather, Hurricanes,</p> <p>KS4 at Balcarras 'The challenge of natural hazards' The causes, effects and responses to Natural hazards. Including Earthquakes, volcanic eruptions and Tropical storms. Looking at Extreme weather and flooding in the UK.</p> <p>KS5 at Balcarras The coasts topic and Changing Places topic are taught before this one in year 12. 'Coasts' (links to tsunamis and storms. There is also a section on systems and positive/negative feedback loops), 'Changing places' (sense of place and hazardous events such as wildfires)</p>		
<p>KS5 at Balcarras In this topic students look at the cause, impact and response to natural hazards on human populations. It begins with the concept of hazard in a geographical context. For each area the cause/formation of the hazard is investigated. Then the primary/secondary impacts of each hazard, followed by the short and long term responses to the hazard. The content starts with plate tectonics, then looks at volcanic hazards, seismic hazards (including tsunami's), storm hazards and wildfire hazards. There are also two large case studies; a 'Multi-hazardous' case study (Philippines), and a 'case study at a local scale' (Kobe, Japan)</p>		
<p>Future Learning (Topic)</p> <p>KS5 at Balcarras- Due to the synoptic nature of geography elements of hazards can be brought into other modules, especially the essay questions. The other modules studied are 'Water and Carbon Cycles' (links to volcanic influence on Carbon), 'population and the environment' (climate change, resources and health) 'Global systems and governance' (changing climate)</p>		
<p>How will knowledge and skills be taught? (Implementation)</p>	<p>How will your understanding be assessed & recorded (Impact)</p>	
<p>The concept of a hazard and hazard modelling. Plate tectonics Volcanic hazards; cause, impact and response's Seismic hazards; cause, impact and response's Storm hazards; cause, impact and response's Wildfire hazards; cause, impact and response's A 'Multi-hazardous' case study (Philippines), A 'case study at a local scale' (Kobe, Japan)</p>	<p>Provide SHORT and FREQUENT re-call tests in a low-stakes environment – mix of formative and summative</p> <p>Pupils will receive a past paper question booklet which covers all previous exam questions available to us. These will be regularly set, marked Continual low-stakes formative testing in lessons through verbal questioning</p> <p>This topic will be covered within the Year 12 and Year 13 formal mock exams - summative feedback.</p>	
<p>Misconceptions LIC's have no capacity to cope with natural disasters Development of a country can effect the vulnerability of that country. Countries that experience regular hazards tend to be better prepared. The size of the hazard, location of population, regularity, capacity to respond, predict, prepare and perception all have an influence on the level of risk. Natural disasters always impact LIC's to a greater extent</p>	<p>A level record sheet, Progress analysis, data shared in interim reports and formal reports and parents evening.</p>	

The scale of the impact has a large impact on the level of risk. Often the economic impact is greater in HIC's. The Social/environmental impact is often greater in LIC's due to the vulnerability of the population. However different case studies have a number of different factors effecting impact.

Predicting natural disasters is difficult

Tropical storms are the easiest hazard to predict, as they occur at one time of year and take a few days to form. The potential hazard of Wildfires can be predicted, however the development of the impacts is harder to predict. Seismic and volcanic hazards are difficult to accurately predict. The frequency of events often determines the level of prediction rather than the level of development, or type of hazard.

Wildfires are not a natural phenomenon

Wildfires are a natural phenomenon; poor management can lead to the impact of a wildfire being greater. Increased urbanisation has led to more people living in areas at risk from wildfires. Climate change is making temperatures increase and the risk level going up.

How can parents help at home?

Support with homework and revision techniques for graded assessments. Discuss current affair issues by watching/reading the news. Download the BBC or Guardian news app and set to environmental notifications to receive the most update articles. Watching relevant documentaries e.g. David Attenborough, wildlife/environments.

Places to explore

USGS latest earthquake map <https://earthquake.usgs.gov/earthquakes/map/?extent=5.09094,-137.19727&extent=61.31245,-52.82227>

Live volcano map and webcams <https://www.volcanodiscovery.com/volcano-map.html>

Mount Etna, Vesuvius, Pompei in Italy is our nearest volcano/seismic zone.

Or Iceland has active volcanoes and seismic activity.

Watch this

<https://www.youtube.com/watch?v=sjVfkooyT6k> Eyjafjallajokull Case Study

BBC expedition Volcano (2022) documentary <https://www.bbc.co.uk/programmes/b09hzbzb>

Documentary on Typhoon Haiyan, Philippines <https://www.youtube.com/watch?v=2DxYbnWmM-0>

Black Saturday documentary, wildfires in Australia <https://www.youtube.com/watch?v=tuYZRttd9Y>

San andreas (2015) film about Earthquakes

Only the Brave (2017) film about wildfires

The Impossible (2012) film about the Indonesian Tsunami

Listen to this

<https://killerearth.buzzsprout.com/1459951> podcast with a range of natural disasters

Check this out

<https://ourworldindata.org/natural-disasters> stats on global rates of natural disasters

<https://www.sciencedirect.com/topics/earth-and-planetary-sciences/natural-disaster> abstracts and journals on natural disasters

<https://www.coolgeography.co.uk/advanced/hazards.php> for information on all elements of this module

Conversation Starters

'fatalism is the worst type of perception to have if you live near a volcano'

'the benefits of living by a volcano outweigh the costs'

'earthquakes don't kill people, buildings do'

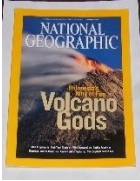
'wildfires cannot be stopped'

'In the future we will have more and more super storms'

'you can never fully prepare for an earthquake'

'through preparedness, mitigation, prevention and adaptation we can stop the hazard of volcanoes'

Helpful further reading/discussion

<p>Reading</p> <p>Fiction</p> <p>Krakatoa: The Day the World Exploded: August 27, 1883 by Simon Winchester</p> <p>A Crack in the Edge of the World: The Great American Earthquake of 1906 by Simon Winchester</p> <p>Academic reading</p>  <p>National Geographic (website and magazine) Royal Geographic Society</p> <p>Non Fiction</p> <p>At Risk: Natural Hazards, People's Vulnerability and Disasters by Piers M. Blaikie, Terry Cannon, Ian Davis, Ben Wisner</p> <p>Natural Hazards and Disaster Management: Vulnerability and Mitigation by R.B. Singh</p>	<p>Vocabulary Lists</p> <p><i>Speaking like a geographer (Splug)</i></p> <p>Risk</p> <p>Hazard (geophysical, atmospheric and hydrological)</p> <p>Perception of hazard (fatalism, dominance, acceptance)</p> <p>Nature of a hazard</p> <p>Seismic</p> <p>Plate boundary (constructive, destructive, subduction, collision, conservative)</p> <p>Hot spot</p> <p>volcanic hazard: (nuées ardentes, lava flows, mudflows, pyroclastic and ash fallout, gases/acid rain, tephra)</p> <p>Tropical storm (Typhoon, Hurricane, Cyclone)</p> <p>Volcanic hazard)</p> <p>storm hazard (high winds, storm surges, coastal flooding, river flooding and landslides)</p> <p>Causes of fires: natural and human agency</p> <p>Prediction, Preparation, Planning, adaptation, mitigation</p> <p>hazard incidence, intensity, magnitude, distribution</p> <p>Spatial</p> <p>distribution, randomness, magnitude, frequency, regularity and predictability of hazard events</p> <p>Primary impacts</p> <p>Secondary impacts</p> <p>Short term responses</p> <p>Long term responses</p> <p>multi-hazardous case study</p> <p>Case study at a local scale</p>	<p>Careers Links</p> <p>Volcanologist</p> <p>Meteorologist</p> <p>Seismologist</p> <p>Emergency response coordinator</p> <p>Charity response to disasters</p>
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