Year 10 Geography Autumn Term

Natural Hazards

How does this unit link to prior learning?			
Year 7	**Year 7**	**Year 8**	**Year 9**
Map skills	Weather and Climate (Extreme Weather)	Globalisation (Development differences between countries)	Natural Hazards

What will you be learning about? In this unit you will learn about how natural processes can cause dangers and problems for people. You will start by learning about tectonic hazards—hazards such as earthquakes and volcanoes which are caused by movements in the earth's tectonic plates. You will then move on to learn about weather hazards such as tropical storms. Finally we will learn about the challenge of climate change.

Key Focus: For each aspect of the natural hazards unit (tectonic hazards, weather hazards and climate change) you will focus on the physical processes that cause the hazard, the ways it can affect people and the ways in which people can reduce the risk level of the hazard. You will also learn a number of case studies. Each lesson will start with knowledge retrieval, which will cover the knowledge, understanding and skills you have developed in previous lessons.

We will develop our learning by studying the following sequence of lessons:

1. **Natural hazards pose risks to people and property**
   You will define natural hazard and identify the different types of natural hazard. You will explore the factors that affect hazard risk.
2. **Plate tectonics theory**
   You will study plate tectonics theory and explore the global distribution of earthquakes and volcanic eruptions and their relationship to plate margins.
3. **Plate margins**
   You will explore the Physical processes taking place at different types of plate margin (constructive, destructive and conservative) that lead to earthquakes and volcanic activity.
4. **LIC hazard case study: Haiti Earthquake, 2010**
   You will explore the primary and secondary effects, and immediate and long-term responses in Haiti.
5. **HIC hazard case study: Chile Earthquake, 2010**
   You will explore the primary and secondary effects, and immediate and long-term responses in Chile.
6. **Comparing how the effect of, and response to, hazards varies between contrasting levels of wealth.**
7. **Interim assessment**
8. **Management to reduce effects of tectonic hazards**
   You will learn reasons why people continue to live in areas at risk from a tectonic hazard, and how monitoring, prediction, protection and planning can reduce the risks from a tectonic hazard.
9. **Global Atmospheric Circulation**
   You will learn how GAC helps to determine patterns of weather and climate (including pressure belts and surface winds).
10. **Distribution and causes of tropical storms**
    Distribution of tropical storms (hurricanes, cyclones and typhoons), the relationship between tropical storms and GAC, and the causes of tropical storms including the sequence of their formation and development, and their structure.
11. **Climate change and tropical storms**
    You will explore how climate change might affect the distribution, frequency and intensity of tropical storms.
12. **Tropical storm case study: Typhoon Haiyan, 2013**
    You will study a named example of a tropical storm to show its primary and secondary effects, and immediate and long-term responses.
13. **Management of tropical storms**
    You will learn how monitoring, prediction, protection and planning can reduce the effects of tropical storms.
14. **Weather hazards in the UK**
    An overview of types of weather hazard experienced in the UK, including evidence that weather is becoming more extreme in the UK.
15. **Extreme weather in the UK**: case study Storm Ciaran
    An example of recent weather to show the causes, social, economic and environmental impacts, and how management strategies reduced risk.
16. **Evidence for climate change**
    Evidence for climate change from the beginning of the Quaternary period to the present day.
17. **Causes of climate change**
    You will explore possible causes of climate change including human (use of fossil fuels, agriculture and deforestation) and natural (orbital changes, volcanic activity and solar output).
18. **Effects of climate change**
    Overview of the effects of climate change on people and the environment.
19. **Managing climate change**
    You will explore both mitigation (alternative energy production, carbon capture, planting trees, international agreements) and adaptation (change in agricultural systems, managing water supply, reducing risk from rising sea levels).

How will this unit help you in the future?	
Year 10: The skills you develop in explaining physical processes and evaluating human responses will help you in upcoming units in the GCSE such as Physical Landscapes and Changing Economic World	**Year 11:** This unit will be assessed your Paper 1 exam in May. This unit provides the foundation for further study of natural hazards at A-Level and degree level

Key Vocabulary

Tectonic Richter scale Prediction Preparation Protection Eye wall Storm surge Extreme weather

Natural hazard Hazard risk Mitigation Adaptation Fossil fuels Renewable energy