Year 9 Geography: Natural Hazards

Learning Outcomes	By the end of this unit, students will be able to demonstrate secure knowledge and understanding of natural hazards. They will be able to define what natural hazards are and explain the different types, including geophysical, hydrological, and meteorological hazards. Students will also describe the structure of the Earth and explain how physical processes such as convection currents lead to the movement of tectonic plates. In addition, they will identify and explain how factors such as population density, level of development, and management strategies affect levels of hazard risk in different places around the world. Students will also develop an appreciation of the global significance of natural hazards and the challenges they pose for people and societies. They will recognise inequalities in vulnerability and resilience between high-income and low-income countries and reflect on the importance of scientific research, planning, and international cooperation in reducing the impacts of hazards. The unit will also enable students to describe and explain the global distribution of earthquakes and volcanoes in relation to plate boundaries. They will gain an understanding of the processes operating at constructive, destructive, and conservative plate margins and how these create hazards and associated landforms. Through the case studies of the 2016 Italy earthquake and the 2015 Nepal earthquake, students will explain the causes, impacts, and responses of each event and compare how levels of wealth and development influence vulnerability and recovery. Finally, students will evaluate strategies designed to reduce risk, including the "3 P's" of Planning, Protection, and Prediction. They will be able to explain why people continue to live in hazardous areas despite the risks and assess the relative effectiveness of different approaches to hazard management.
Key Questions	1. What are natural hazards and what factors affect hazard risk? 2. How do plates move? 3. How are earthquakes and volcanoes distributed? 4. What happens at constructive, destructive and conservative plate boundaries? 5. How well do you know 'Natural Hazards'? (Key Assessment 1) 6. What were the causes and effects of the Italy earthquake? 7. What were the responses to the Italy earthquake? 8. What were the causes and effects of the Nepal earthquake? 9. What were the responses of the Nepal earthquake? 10. How can tectonics be managed? 11. How well do you know 'Natural Hazards Case Studies and Managing Risk'? (Key Assessment 2)
Knowledge	**Key Concepts:** • Structure of the Earth and tectonic processes

NHSG Key Stage 3 Geography Year 9: Autumn Unit Overview

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Types of natural hazards and factors affecting risk
Distribution of earthquakes and volcanoes
Causes and impacts of Italy (2016) and Nepal (2015) earthquakes
Responses and management strategies (short-term, long-term, and the 3 P’s: Planning, Protection, Prediction)
Skills in interpreting data, maps, and writing extended responses

Key Skills:

Use geographical vocabulary accurately in both written and verbal explanations.
Interpret and analyse maps, graphs, and other data showing hazard distribution, magnitude, and risk.
Structure extended written responses, including 6-mark and 9-mark exam-style questions, using connectives to assess, justify, and evaluate.
Apply comparative skills by examining case studies from contrasting economic contexts (HIC vs LIC).
Develop enquiry skills through hypothesis testing (e.g., why some places are more vulnerable to hazards).

Key Terms:
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<tr><td>Natural hazard</td><td>Frequency</td><td>Tectonic plate</td><td>Destructive boundary</td></tr>
<tr><td>Risk</td><td>Geophysical hazard</td><td>Plate boundary</td><td>Conservative boundary</td></tr>
<tr><td>Vulnerability</td><td>Meteorological hazard</td><td>Convection currents</td><td>Subduction</td></tr>
<tr><td>Magnitude</td><td>Hydrological hazard</td><td>Constructive boundary</td><td>Epicentre</td></tr>
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<td>Ongoing Assessment</td>
<td>Ongoing assessment is embedded throughout the unit to ensure that students make sustained progress. Regular recap activities and low-stakes quizzes are used to consolidate prior learning and check recall of key knowledge. Students also engage with exam-style practice questions, including 6-mark and 9-mark responses, to develop their ability to structure extended answers and apply geographical terminology effectively. Class discussions and opportunities for peer assessment encourage collaborative learning and critical reflection, while knowledge checks within lessons provide teachers with immediate feedback on student understanding and areas requiring further support.</td>
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<td>Key Assessment</td>
<td>Key Assessment 1: This is a mid-topic assessment. It will be completed online in the form of an MS Form assessment. This will test knowledge and skills worth 35 marks. The assessment will be on an auto timer for 25 minutes. Feedback is automatic and students will be provided with time to complete a green reflection sheet to formulate feedback.

Key Assessment 2: This will be a written assessment, worth 20 marks and the timed allowed will be 30 minutes. As part of our assessment design, students have had the chance to practice structuring a 9-mark question. This will be the first opportunity for students to practice this</td>
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	skill in timed conditions. Students will be provided with written feedback on their assessment and a green reflection sheet. This sheet will help students identify what they have done well in and work out an area for improvement for next time.
Sequencing	The unit is carefully sequenced to build knowledge and skills in a logical and progressive way. It begins by introducing students to the definitions and classification of natural hazards, as well as the key factors that influence hazard risk. From this foundation, students' progress to an exploration of tectonic processes and the structure of the Earth, including the role of convection currents and the formation of different types of plate boundaries. This scientific understanding is then applied to real-world contexts through detailed case studies of earthquake events in Italy and Nepal, enabling students to compare the causes, impacts, and responses across countries of contrasting levels of development. The unit concludes with a focus on management strategies, including the "3 P's" of Planning, Protection, and Prediction, and culminates in assessments designed to test both factual knowledge and higher-order evaluative skills.
Links to Careers	Studying natural hazards provides clear pathways into a range of careers. Knowledge of hazard risks and responses is directly relevant to disaster management and emergency planning, where professionals assess risk and coordinate relief efforts. Civil engineering and construction careers link closely to designing earthquake-resistant buildings and infrastructure, while seismology and volcanology focus on researching tectonic activity and improving monitoring and prediction. The study of contrasting case studies, such as Italy and Nepal, highlights the importance of humanitarian aid and international development careers that support vulnerable communities. Skills in data interpretation and risk evaluation also connect to environmental consultancy and GIS analysis, both of which involve hazard mapping and sustainable planning. Finally, students may also be inspired to pursue education and outreach roles, using their geographical knowledge to raise awareness and strengthen community resilience.
Diversity and Inclusion	Case studies from Italy, a high-income country (HIC), and Nepal, a low-income country (LIC), provide students with contrasting perspectives on vulnerability, resilience, and recovery. The unit also highlights the contribution of Inge Lehmann, an inspirational female geographer, as a role model within the field of Earth sciences. All students are encouraged to share and value their own perspectives on risk and resilience, while sensitivity is maintained when discussing the impacts of hazards on vulnerable communities to ensure an inclusive and respectful learning environment.
Support	This course is very well planned and resourced to ensure free and open access for all students. Teaching and learning resources can be access on SharePoint or through MS Teams. All handbooks, lesson PowerPoints and worksheets are on there. All students are provided with a printed copy of the worksheets that cover all the notes in the PowerPoints. The subject handbook gives a list of all of the key words for each topic with a specification checklist to show how student learning ties in with key assessments and formal examinations. Reading is actively promoted throughout the geography curriculum to foster both subject knowledge and wider literacy skills. A dedicated Geography Bookshelf is available for students, providing access to a range of texts that extend their understanding of natural hazards and related themes beyond the classroom. Independent reading from this collection encourages curiosity, critical thinking, and a deeper

	appreciation of geographical issues. To further support literacy development, each unit is accompanied by a comprehensive glossary of key terms. This enables students to engage confidently with subject-specific vocabulary, strengthens their written and verbal expression, and ensures that all learners can access and apply the disciplinary language of geography effectively. We subscribe to magazines through the department and ensure there are copies in the library for all students to access. We systematically send positive postcards home to students who have made excellent progress and also contact home to offer support to those who haven't made the expected progress.
Challenge	Blue and purple challenge activities are built into all of our geography lessons to stretch the more able and a wide range of extension activities are provided for students throughout the course. These include wider reading, watching news reports and articles, films and documentaries and targeted research assignments. Activities are shared with students through the lesson resource packs. The following links provide further challenge. • Internet Geography The Challenge of Natural Hazards - Internet Geography • Cool Geography Coolgeography - GCSE - Challenge of Natural Hazards • Wider reading can be found the Geography SharePoint Page. • Wide World Magazine- Copies of these can be found in the library or on our Geography SharePoint Page Geography - Wide World Magazine - All Documents We also encourage all students to watch, read of listen to the news to bring real stories into class to add to their learning. Year 9 are invited to 'The Geographical Society' which is led by the Year 12 geography students where they have the opportunity to write articles for our magazine, the 'Nonsuch Geographic' and to take part in geography games and competitions.