Acle Academy

Y10 GEOGRAPHY

NATURAL HAZARDS- How do we live with the challenge of natural hazards?

Rationale and Context of Unit:	Core curriculum content:	Tier 2 & Tier 3 vocabulary explicitly taught:
• Living with the physical environment is about physical processes and systems, how they change, and how people interact with them at a range of scales and in a range of places. This unit links to the physical landscape as it builds on physical processes and adds in how these processes can be hazards & how humans manage them. • Then there is a specific focus on three natural hazards: tectonic hazards (volcanoes & earthquakes), weather hazards and climate change. It investigates how these hazards occur and why? • The management of each is studied looking at effects of the hazard and how to plan to limit these effects, but also how they can bring benefits e.g. geothermal energy, rich volcanic soil in Italy for the vineyards. • The unit gives opportunities to develop geographical skills such as: description of patterns of distribution in maps & graphs, carry out research, use numerical data & analyse it and present data using different graphical techniques.	• Around the world there are numerous natural hazards that pose major risks to people and property. Why this & what is actually a hazard? How do we reduce the risk of living near these hazards? • Tectonic hazards- earthquakes and volcanic eruptions are the result of physical processes, these will be studied in detail to understand where they occur and how the structure of the earth is not a stable one. How the effect of and responses to tectonic hazards vary between areas of contrasting levels of wealth and how management can reduce the effects of tectonic hazards. This will be studied through global case studies, so students can apply the theory to actual locations. • Weather hazards are formed by global atmospheric circulation which determines weather patterns and climate. This can result in certain hazards (hurricanes, cyclones, typhoons) developing due to particular physical conditions. Investigation into these conditions and how they affect people & the environment. A focussed study looking at weather hazards and extreme weather events in the UK & how they impact human activity. • Climate change is a result of natural & human factors and has a range of effects. These are all studied, along with managing climate change with both mitigation & adaptation.	Typhoon/cyclone/hurricane Atmosphere Orbit Milankovic cycle Volcano Earthquake Hazard Seismology Mitigation Geothermal Subduction Evaporation Coriolis force Extreme Quaternary period Interglacial Solar Greenhouse effect

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Challenge and Support:	Worldwide learning/ links to 21st century:	Cultural capital/ Industry/ Enrichment:
• Develop vocabulary both verbally and in written. • Writing frames; success criteria. • VIP strategy for disadvantaged students • Some pupils will progress further and start to describe and begin to explain. • Relevant SEND support based on student's individual needs and passport information.	• The case of how hazards affect different countries in different ways depending on their wealth. How countries react to these disasters & often support each other in times of crisis. • How using the hazard to our advantage e.g. renewable geothermal energy, farming practices & tourism. • Sustainable management of climate change- reducing CO^2 emissions, managing water supply, global carbon reduction agreements, being more environmentally aware & adapting our lifestyle to ensure this.	• Explore ideas of opportunities for employment in hazard management/ investigation. • Climate change scientific research at UEA in Norwich.
Historical, Social, Moral, Spiritual, Cultural context:	**Cross curricular links/ literacy/numeracy:**	**Common misconceptions:**
• Moral- Students will be exploring the moral context of the poor countries that are affected by hazards- how do these people cope during & after an event? • Historical – the changing climate of the world over geological time. • Reading of 'A Christmas Carol' by Charles Dickens- looks at the particularly cold Victorian winters caused by the 'Little Ice Age'. • Living through the changing climate- hot summer of 2018 & 2022.	• Cross curricular links with the science department looking climate change. • Cross curricular with Character and Culture influence of human decisions on our environment. • Opportunities to promote reading aloud and for extended writing. Reading of 'A Christmas Carol' by Charles Dickens- looks at the particularly cold Victorian winters caused by the 'Little Ice Age'. • Numeracy through analysis of data, reading graphs and charts to establish patterns. Construction of graphs and presentation of data over time.	• That these are problems that occur elsewhere and does not affect us added to that climate change- it is impacting us NOW. • Hazards do not affect the UK!
Assessment timeline:		
• Use of Knowledge and retrieval quizzes- accumulated learning quizzes conducted on a regular basis. Reviews understanding and comprehension and retention of key knowledge. • Exam questions for all 3 key question styles- explain, analyse and evaluate. Model answers, structure guides and scaffolding available for each question. • Assessment through in class tasks to ensure understanding and application of key skills such as; describing patterns using maps and data, applying numerical data in decision making activity, reading and creating different types of graphs.		

Home learning
• Revision for accumulated learning quizzes • Exam practice questions- modelled and structured/planned in class • Revision for end of topic test, as well as re-drafting based on FB4 for end of topic test. • Online Seneca learning
Feedback
• Feedback 4 used for all assessed exam questions • Live marking - self assessment and green pen. • Knowledge quizzes- peer assessed and collated.

Length of unit (duration indicated in lessons)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Unit:																													