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| **What will we be learning?**  Natural Hazards | **Why this? Why Now?**  You have just completed the **Ecosystems** unit where we look at how ecosystems work and the impacts of people.  This unit looks at how the earth can create natural events that can affect locations.  Both units also look at how people’s actions can affect events. |
| **🌋 Top Careers Involving Tectonic Hazards** **Volcanologist** *(Scientific & Research)* **Earthquake Engineer** *(Engineering & Infrastructure)* **Disaster Risk Manager** *(Emergency Management)* **Science Communicator** *(Education & Outreach)* **Geophysicist** *(Scientific & Research)* **Geotechnical Engineer** *(Engineering & Infrastructure)* **Urban Planner** *(Emergency Management & Infrastructure)* **International Aid Worker (Disaster Relief)** *(Government & Humanitarian)* **Geography Teacher (Earth Science Focus)** *(Education)*  **How will I be assessed?**  A **Mid Unit** Short Answer Knowledge Assessment  An **End of Unit** Short Answer Knowledge Assessment  **Summer Exam**: Ecosystems, **Natural Hazards**, Map Skills.  **What opportunities are there for wider study?**  **Depth and Breadth Research:**   * <https://earthquakes.volcanodiscovery.com/> This is brilliant to see where there are earthquakes/eruptions in real time! * <https://www.usgs.gov/volcanoes/kilauea/webcams>   A live webcam function from the US Geological Society.  **Revision and Retrieval:**  <https://www.bbc.co.uk/bitesize/topics/zn476sg> BBC Bitesize - Brilliant if you need to catch up or check your key terms and definitions.  **Reading for Pleasure: 📚 Top 5 Fiction Books on Earthquakes & Volcanoes (Ages ~12)**  **I Survived the San Francisco Earthquake, 1906 – Lauren Tarshis:** A gripping survival story told from the perspective of a 10-year-old boy caught in the chaos of the 1906 earthquake. Part of the popular I Survived series, it’s both educational and exciting.  **Night of the Howling Dogs – Graham Salisbury:** Based on a true event, this novel follows a group of Boy Scouts camping in Hawaii when a massive earthquake and tsunami strike. Themes of friendship, bravery, and survival shine through.  **Earthquake in the Early Morning (Magic Tree House #24) – Mary Pope Osborne:** Jack and Annie travel back to 1906 San Francisco in this time-travel adventure.  **Into the Volcano – Jess Butterworth:** Set in Yellowstone National Park, this adventure blends emotional depth with action as two children face personal trauma and the threat of a supervolcano eruption.  **The Somerset Tsunami – Emma Carroll:** A historical mystery set in 17th-century England, where a young girl faces a devastating tsunami and accusations of witchcraft. A rich, atmospheric read with strong characters.  **Earthquakes and Volcanoes**  Earthquake – The shaking of the ground when plates suddenly move.  Tsunami – A big wave caused by an earthquake under the sea.  🌋 **Types of Volcanoes**  Composite Volcano – A tall, steep volcano with big, explosive eruptions.  Shield Volcano – A wide, gentle volcano with slow, runny lava.  Pyroclastic Flow – A fast, hot cloud of ash, gas, and rocks from a volcano.  🔥 **Effects of Natural Disasters**  Primary Effects – Things that happen straight away (like buildings falling).  Secondary Effects – Things that happen later (like fires or disease).  🌍 **Theories and History**  Pangea – A supercontinent that existed millions of years ago.  Plate Tectonic Theory – The idea that the Earth’s crust is made of moving plates.  Continental Drift – The movement of continents over time.  **Key Term and Definitions: You need to learn these. Words from this list can be part of your summer exam.**  **Tectonic Hazards – Key Words and Meanings**  Crust – The thin, outer layer of the Earth. It’s like the skin of an apple.  Mantle – The layer under the crust. It’s made of hot, melted rock that moves slowly.  Outer Core – A hot, liquid layer deep inside the Earth.  Inner Core – The very centre of the Earth. It’s solid and very hot.  🌎 **Plates and Movement**  Tectonic Plates – Big pieces of the Earth’s crust that move slowly.  Oceanic Plate – A heavy plate under the ocean.  Continental Plate – A lighter plate that has land on it.  Plate Boundary – The edge where two plates meet. Earthquakes and volcanoes often happen here.  Subduction – When one plate goes under another and melts in the mantle.  Friction – When plates rub against each other and get stuck.  Stick–Slip – Plates get stuck, pressure builds, then they suddenly move – causing an earthquake.  🌋 **Types of Plate Boundaries**  Conservative – Plates slide past each other.  Constructive – Plates move apart and new land forms.  Destructive – Plates move together and one goes under the other.  🌐 **Earthquakes and Volcanoes**  Earthquake – The shaking of the ground when plates suddenly move.  Tsunami – A big wave caused by an earthquake under the sea.  Volcanic Eruption – When magma (hot rock) comes out of a volcano.  🌋 Types of Volcanoes  Composite Volcano – A tall, steep volcano with big, explosive eruptions.  Shield Volcano – A wide, gentle volcano with slow, runny lava.  Pyroclastic Flow – A fast, hot cloud of ash, gas, and rocks from a volcano.  🔥 Effects of Natural Disasters  Primary Effects – Things that happen straight away (like buildings falling).  Secondary Effects – Things that happen later (like fires or disease).  🌍 Theories and History  Pangea – A supercontinent that existed millions of years ago.  Plate Tectonic Theory – The idea that the Earth’s crust is made of moving plates.  Continental Drift – The movement of continents over time   |  |  |  | | --- | --- | --- | | **What are we studying?** | **Date** | **Retrieval Practice** | | 1. What are natural hazards |  |  | | 1. What are the features of the structure of the earth? |  |  | | 1. How can we prove tectonic plates exist? |  |  | | 1. Where are tectonic plates and how do they move? |  |  | | 1. What are the different plate boundaries? |  |  | | 1. **Mid Unit Knowledge Assessment** |  |  | | 1. How can we understand the formation of earthquakes? |  |  | | 1. How are earthquakes measured? |  |  | | 1. What are the causes, impacts and responses to an earthquake – Case Study |  |  | | 1. How are Tsunamis formed? |  |  | | 1. What are the different types of Volcanoes? |  |  | | 1. What happens when a volcano erupts? |  |  | | 1. Case Study of a volcanic eruption – what choices would you make? |  |  | | 1. **End of Unit Knowledge Assessment** |  |  | |  |  |  | | |
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