

Earthquakes: Shifting Foundations

Learning objective: To describe and explain the causes and effects of earthquakes using geographical vocabulary.

Use this writing scaffold to structure your report on earthquakes. Refer to your research on tectonic plates to ensure your explanations are geographically accurate. Use the word bank to help you link your ideas together.

Deep beneath the Earth's surface, massive sections of rock known as tectonic plates are constantly in motion, occasionally causing the ground above to shudder.

Word bank: tectonic plates · seismic waves · epicentre · magnitude · consequently · furthermore · tremor · geological · devastation · subsequently

1. The Science of Shaking: Explain why earthquakes occur using the concept of tectonic plates. Begin with: Earthquakes happen because... (3 marks)

2. Measuring Magnitude: Compare and contrast how scientists measure the strength of an earthquake. Start with: To determine the intensity of a tremor, experts use... (3 marks)

3. The Impact on Landscapes: Describe how an earthquake alters the physical geography of an area. Start with: When seismic waves ripple through the ground, the landscape is transformed by... (3 marks)

4. Human Consequences: Justify why certain buildings in earthquake-prone zones are designed differently. Start with: Architects must prioritise safety by... (3 marks)

5. Predicting the Future: What might happen if technology allowed us to predict earthquakes weeks in advance? Start with: If scientists could forecast seismic activity accurately, the impact on communities would... (4 marks)

6. Critical Evaluation: Evaluate the importance of emergency preparedness for people living near plate boundaries. Start with: It is essential for inhabitants of these regions to have an emergency plan because... (4 marks)

Extension challenge: Imagine you are Finn the dolphin, observing geological changes from the coastline. Write a creative diary entry describing a tremor from your unique perspective. How does the ocean environment change when the earth shifts? Use at least four pieces of technical geographical vocabulary in your account.