

Earthquake Investigator: Field Report

Learning objective: To understand the causes and effects of earthquakes and how they shape our planet.

Join Finn the dolphin and Nova the owl to investigate how our Earth moves. Use your geography skills to complete this field report. Research how tectonic plates shift and describe the impact these movements have on the landscape and the people living nearby.

Word bank: tectonic plates · crust · seismic waves · epicentre · magnitude · tremor · fault line · geology

1. The Earth's Crust: Describe the structure of the Earth and explain how the movement of tectonic plates causes an earthquake. (3 marks)

2. Locating the Source: What is the difference between the focus and the epicentre of an earthquake? Justify why it is important for scientists to identify these locations quickly. (4 marks)

3. Measuring Impact: Explain why some earthquakes are more destructive than others. Compare the effects of a low-magnitude tremor with a high-magnitude earthquake. (4 marks)

4. Human Geography: What might happen to a town's infrastructure if a major earthquake occurred? Consider buildings, transport links, and essential services. (3 marks)

5. Safety Measures: If you were designing a new building in a region prone to earthquakes, what clever features would you include to make it safer? Explain your reasoning. (3 marks)

6. Geographical Reflection: Compare and contrast how life in a city built on a fault line differs from life in a city located in the center of a tectonic plate. (3 marks)

Extension challenge: Design a 'Safety Poster' for a school in an earthquake-prone area, detailing three essential actions pupils should take during a tremor. Then, write a short paragraph justifying why these specific actions are the most effective way to stay safe.