

Finn's Epic Earth Science Quiz: Tremors and Tectonics

Learning objective: To identify the causes of earthquakes, locate key tectonic zones, and understand the impact of seismic activity on the Earth's crust.

Join Finn the dolphin on a deep-sea discovery mission! Read the questions carefully. Some require a single word, while others ask you to choose the best option. Good luck, explorer!

Answer Key: 1. B (Tectonic plates), 2. False, 3. Seismograph, 4. A (Epicentre), 5. True, 6. C (Magnitude), 7. Focus, 8. D (All of the above), 9. True, 10. A fault line.

Word bank: Tectonic plates · Epicentre · Seismograph · Focus · Crust · Fault line · Magnitude · Aftershocks

1. 1. What do we call the giant, moving sections of the Earth's outer shell? A) The mantle B) Tectonic plates* C) Ocean basins D) Core fragments (1 mark)

2. 2. True or False: Earthquakes happen most frequently in the middle of stable continents, far away from plate boundaries. (1 mark)

3. 3. What is the name of the scientific instrument used to detect and record the intensity of an earthquake? (1 mark)

4. 4. The point on the Earth's surface directly above where an earthquake begins is called the: A) Epicentre* B) Core C) Vent D) Crater (1 mark)

5. 5. True or False: Earthquakes can trigger tsunamis if they occur under the ocean floor. (1 mark)

6. 6. Which scale is commonly used to measure the size or energy of an earthquake? A) The Celsius scale B) The Beaufort scale C) The Magnitude scale* D) The Newton scale (1 mark)

7. 7. What is the specific location *inside* the Earth where the earthquake rupture actually begins? (1 mark)

8. 8. Which of these can occur after a major earthquake? A) Landslides B) Building damage C) Aftershocks D) All of the above* (1 mark)

9. 9. True or False: Scientists can currently predict the exact day and time an earthquake will happen. (1 mark)

10. 10. What is the geological term for a fracture or zone of fractures between two blocks of rock? (1 mark)

Draw: Draw a cross-section of the Earth showing two tectonic plates pushing against each other. Label the 'Fault line' and the 'Focus' point deep underground.



Extension challenge: 1. Explain why earthquakes are more common in countries like Japan or New Zealand compared to the UK. 2. Compare and contrast the difference between the 'focus' and the 'epicentre'. 3. Justify your answer: Why is it difficult for scientists to predict earthquakes accurately? 4. What might happen if a large-scale earthquake occurred in a densely populated city centre? 5. If a charity wanted to spend £5,000 to help a community prepare for an earthquake, what three items should they buy and why? 6. Research the 'Ring of Fire'. Why does this area experience more seismic activity than the rest of the world?