

Earthquake Explorers with Finn the Dolphin

Learning objective: To understand the causes of earthquakes and identify the key features of the Earth's structure.

Finn the Dolphin has been mapping the ocean floor and has discovered how the Earth's crust moves! Use the word bank to label the diagram of the Earth's layers and complete the 'True or False' activity to test your knowledge of how earthquakes happen. For each 'False' statement, write a quick sentence explaining why it is incorrect.

Word bank: Crust · Mantle · Outer Core · Inner Core · Tectonic Plates · Epicentre · Seismic Waves

1. True or False: Earthquakes occur because the Earth's crust is made of solid, unmoving pieces called tectonic plates. If false, explain why. (2 marks)

2. True or False: The point on the Earth's surface directly above where an earthquake starts is called the epicentre. If false, explain why. (2 marks)

3. True or False: The mantle is a liquid layer of iron and nickel at the very centre of the Earth. If false, explain why. (2 marks)

4. Describe what happens to the energy released during an earthquake as it travels through the ground. (2 marks)

5. Why do you think scientists like Finn use special equipment to monitor vibrations in the ground? (2 marks)

Draw: Draw a cross-section of the Earth, clearly labelling the four main layers: Inner Core, Outer Core, Mantle, and Crust. Draw a small jagged line on the boundary between two tectonic plates to show where an earthquake might begin.



Extension challenge: Imagine you are an architect designing a building in a place where earthquakes are common. List three features you would include to keep the building safe during a tremor. Research how 'base isolation' or 'cross-bracing' helps structures remain standing.