Yr10 Effects of Earthquakes Work

The effects of earthquakes

On this spread you will find out about the effects of two earthquakes in contrasting countries – Chile and Nepal

The earthquakes in Chile and Nepal

Earthquakes can have devastating effects on peoples' lives and activities. **Primary effects** are caused by ground shaking and can include deaths and injuries, and damage to roads and buildings. **Secondary effects** are the result of primary effects (ground shaking) and include tsunami, fires and landslides. Responses to earthquakes include emergency care and support and help with longer-term reconstruction.

Indicator	Chile	Nepal	UK
Gross Domestic Product (GDP) – a measure of wealth	38th out of 193 countries	109th out of 193 countries	6th out of 193 countries
Human Development Index (HDI) – a measure of the level of development	41st out of 187 countries	145th out of 187 countries	14th out of 187 countries

A Contrasting Chile and Nepal

Chile

Imagine what it would be like if the ground shook underneath you for three minutes! This is what happened on 27 February 2010 when a very powerful earthquake measuring 8.8 on the Richter scale struck just off the coast of central Chile (map **B**). The earthquake occurred at a destructive plate margin where the Nazca Plate is moving beneath the South American Plate.

It was followed by a series of smaller aftershocks.

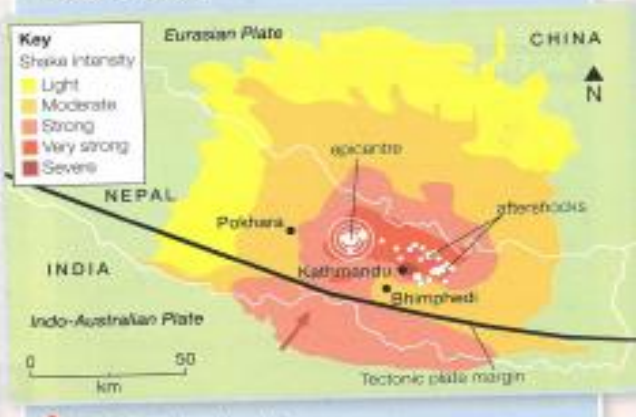
Because the earthquake occurred out to sea, tsunami warnings were issued as waves raced across the Pacific Ocean at speeds of up to 800 km per hour.

B The Chile earthquake

Nepal

On 25 April 2015 Nepal was struck by an earthquake measuring 7.9 on the Richter scale. The epicentre was about 80 km (50 miles) to the north-west of Nepal's capital Kathmandu in the foothills of the Himalayas (map **C**). This is a destructive plate margin where the Indo-Australian Plate is colliding with the Eurasian Plate at a rate of 45 mm per year. The collision and pressure at this margin are responsible for the formation of the Himalayas.

The earthquake was very shallow, just 15 km below the surface. This resulted in very severe ground shaking and widespread landslides and avalanches. The earthquake caused damage hundreds of kilometres away in India, Tibet and Pakistan.



C The Nepal earthquake

TASK 1: Give a definition with an example for each of the following keywords: primary effects and secondary effects.

TASK 2: Compare the level of development between Chile, Nepal and the UK.

TASK 3: Explain the difference between how the Chile and Nepal earthquake were caused using your knowledge on plate margins.