**Quiz – SLH PD Earthquakes**

[**https://www.sciencelearn.org.nz/**](https://www.sciencelearn.org.nz/)

Which student activities might link with these articles?

**[Faults](https://www.sciencelearn.org.nz/resources/336-faults)**

A fault is a fracture in the Earth’s crust where the rock mass on either side has been displaced. Earthquakes occur on active fault lines.

**[Inside the Earth](https://www.sciencelearn.org.nz/resources/337-inside-the-earth)**

We believe the Earth is divided into layers comprised of the crust, upper mantle, mantle and outer and inner core. This model explains the Earth’s tectonic plate movements and other phenomena, such as our magnetic field. But how did we arrive at this model?

**[Moulding the Earth](https://www.sciencelearn.org.nz/resources/338-moulding-the-earth)**

When strain builds up in the Earth as a result of stress from tectonic movement, materials like clay can change shape rather than fracture. This change is not reversible when the stress is removed – it is referred to as plastic rather than elastic. If the stress on the material continues past a certain point, it will pass beyond the range of plasticity and fracture.

**[Plate tectonics](https://www.sciencelearn.org.nz/resources/339-plate-tectonics)**

The plate tectonics theory explains that the Earth’s outer layer is divided into oceanic and continental plates that slide over the layer below – this movement is responsible for geologic activity such as earthquakes.

**[Seismic waves](https://www.sciencelearn.org.nz/resources/340-seismic-waves)**

Seismic waves are waves that travel through or over the Earth. They are usually generated by movements of the Earth’s tectonic plates (earthquakes) but may also be caused by explosions, volcanoes and landslides. Studies of the different types of seismic waves can tell us much about the nature of the Earth’s structure.

**Treasure hunt – SLH PD Earthquakes – answers**

Which teaching and learning approaches might link with these information sheets?

***[Earthquakes New Zealand](https://www.sciencelearn.org.nz/resources/347-earthquakes-new-zealand)***

*This teacher resource introduces a series of activities to help students understand about earthquakes in New Zealand, including why we get them and how we measure them.*

***[World of quakes](https://www.sciencelearn.org.nz/resources/348-world-of-quakes)***

*In this activity, students take on the roles of seismologists and vulcanologists, using maps to look for patterns in the worldwide distribution of earthquakes and volcanoes.*

***[Plates and quakes](https://www.sciencelearn.org.nz/resources/349-plates-and-quakes)***

*In this activity, students take on the roles of seismologists, vulcanologists and geographers, using maps to look for patterns in the worldwide distribution of earthquakes, volcanoes and topographic features.*

***[Shaky New Zealand](https://www.sciencelearn.org.nz/resources/350-shaky-new-zealand)***

*In this activity, students use maps to plot a graph of earthquakes under New Zealand to show the shape of the North Island subduction zone and compare this to the distribution of earthquakes in the South Island.*

***[New Zealand plate boundary models](https://www.sciencelearn.org.nz/resources/351-new-zealand-plate-boundary-models)***

*In this activity, students make and/or observe two 3D moving models of the different tectonic plate boundaries under the North and South Islands representing the North Island subduction zone and the South Island Alpine Fault.*

***[Earthquake location](https://www.sciencelearn.org.nz/resources/352-earthquake-location)***

*In this activity, students are introduced to some of the methods scientists use to record earthquakes. They obtain data from tables and graphs, carry out simple calculations and draw results on a map.*

***[Earthquake intensity](https://www.sciencelearn.org.nz/resources/353-earthquake-intensity)***

*In this activity, students study damage descriptions from earthquakes and allocate a Modified Mercalli Intensity (MMI) number.*

***[Earthquakes past and future](https://www.sciencelearn.org.nz/resources/354-earthquakes-past-and-future)***

*In this activity, students use data on historical earthquakes to identify when and where they occurred and make predictions about future earthquakes.*

***[Best base isolator](https://www.sciencelearn.org.nz/resources/355-best-base-isolator)***

*In this activity, students use a physical model to investigate the effectiveness of different properties for base isolators.*

***[Something creepy is happening](https://www.sciencelearn.org.nz/resources/356-something-creepy-is-happening)***

*In this activity, students explore tectonic movements called slow slips. They plot and interpret a graph using data from an actual event in New Zealand.*

***[Unit plan: Earthquakes](https://www.sciencelearn.org.nz/resources/357-earthquakes-unit-plan)***

*This teacher resource along with the Science Learning Hub context Earthquakes is designed to help primary school teachers improve students’ understanding about what causes earthquakes and how we can protect ourselves.*