

Videos for Geohazards

Published on LEARNZ (<https://www.learnz.org.nz>)

Tuesday 28 April

1. [Why New Zealand has Geohazards](#) [1] mp4 file (65Mb) or [watch on Vimeo](#) [2].

Walk up to the lookout above the fur seal colony in Kaikōura to see how plate tectonics have shaped this area

1. What is significant about the Kaikōura Peninsula
2. Why does New Zealand have so many geohazards?
3. What can be seen from this lookout that shows that the area has been uplifted?

Next step learning: Find out about the rate of uplift of the Southern Alps of New Zealand.

2. [Tsunami and New Zealand](#) [3] mp4 file (55Mb) or [watch on Vimeo](#) [4].

Come down to the coast to find out more about tsunami and the risk of future tsunami in Kaikōura.

1. What is a tsunami?
2. What causes tsunami?
3. Why is there a risk of tsunami in Kaikōura?

Next step learning: Find out which areas of New Zealand are most at risk from tsunami.

3. [Earthquakes and New Zealand](#) [5] mp4 file (61Mb) or [watch on Vimeo](#) [6].

Drive up to a lookout over Kaikōura to talk with Rob about earthquakes and active faults

1. Where do earthquakes occur?
2. What has created the mountain ranges like the Kaikōura Ranges?
3. How are earthquakes measured?

Next step learning: Find out more about the largest earthquakes in New Zealand's recent history.

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4. [The Hope Fault](#) [7] mp4 file (68Mb) or [watch on Vimeo](#) [8].

Drive inland to Greenburn stream to see the Hope Fault.

1. How do we know the Hope Fault runs through here?
2. How big is an earthquake on the Hope Fault likely to be?
3. Why is it helpful to know when previous earthquakes have occurred on this fault?

Next step learning: The Hope Fault is one of the more active faults in New Zealand; what other faults are likely to rupture in the next 1-200 years?

5. [Landslides](#) [9] mp4 file (61Mb) or [watch on Vimeo](#) [10]

Take a break during your drive to Blenheim to investigate a recent landslide.

1. Why is this area prone to landslides?
2. What are the main triggers for landslides?
3. What could you do to try and reduce landslides on this land?

Next step learning: Find out if there have been any landslides in your local area and what has been done to manage the impacts of these.

Wednesday 29 April

1. [The Cook Strait Earthquake Sequence](#) [11] mp4 file (63Mb) or [watch on Vimeo](#) [12]

Drive south of Blenheim to Lake Grassmere to find out more about the 2013 Cook Strait earthquakes

1. How deep was the Lake Grassmere earthquake and what magnitude was it?
2. Where was the first large earthquake in this sequence centered?
3. What impacts did these earthquakes have?

Next step learning: Find out more about this sequence of earthquakes and compare this sequence with the Canterbury sequence.

2. [Past Tsunami at Big Lagoon](#) [13] mp4 file (50Mb) or [watch on Vimeo](#) [14]

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Get permission from the farmer and drive out to Big Lagoon to learn about tsunami in this area.

1. How have geologists collected samples in this area?
2. What do these layers tell us?
3. What happened to the first settlement in this area?

Next step learning: Find out where else in New Zealand there have been tsunami.

3. [Researching the Vernon Fault](#) [15] mp4 file (67Mb) or [watch on Vimeo](#) [16]

Take a look at the trench that has been excavated through part of the Vernon Fault and find out what geologists can learn from this.

1. What can be seen in the trench?
2. How do geologists know from these layers when there have been earthquakes?
3. Why is it helpful to know when past earthquakes have happened?

Next step learning: Find out about other fault lines in Marlborough.

4. [Active Faults](#) [17] mp4 file (72Mb) or [watch on Vimeo](#) [18]

Drive north of Blenheim up the Wairau Valley to find out more about the Wairau Fault.

1. When did the Wairau Fault last rupture in a large earthquake?
2. How do geologists know how big an earthquake on a particular fault is going to be?
3. How quickly are the Alpine Fault and Wairau Fault moving each year and what does this mean?

Next step learning: Find out how geologists measure slow movement along fault lines.

Thursday 30 April

1. [Tsunami Risk in New Zealand](#) [19] mp4 file 57Mb or [watch on Vimeo](#) [20]

Come out to the Boulder Bank in Nelson to find out more about this natural feature and tsunami risk in New Zealand

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1. How did the boulder bank form?
2. Why is there a risk of tsunami in Nelson?
3. Which parts of New Zealand are at risk of tsunami?

Next step learning: Find out which parts of New Zealand are at greatest risk from tsunami.

2. [Detecting and Preparing for Geohazards](#) [21] mp4 file 48Mb or [watch on Vimeo](#) [22]

Find out about how geohazards are monitored by the GeoNet monitoring network.

1. What is GeoNet?
2. What is a seismograph?
3. How are tsunami monitored?

Next step learning: Check out the GeoNet website to find out about recent earthquakes.

3. [Landslides in Cities](#) [23] mp4 file 76Mb or [watch on Vimeo](#) [24]

Walk down to the beach at Tāhunanui to see where a large historic landslide has affected part of Nelson.

1. Why is the hill above Tāhunanui prone to landslide?
2. What happened in 2011?
3. What has been done to stabilise the cliffs above the road at Tāhunanui?

Next step learning: Find out which other parts of New Zealand are prone to landslides.

4. [Landslides in Rural Areas](#) [25] mp4 file 66Mb or [watch on Vimeo](#) [26]

Drive up a hill above Richmond to find out about one of New Zealand's most common landslides.

1. What type of landslide is this?
2. What can cause these types of landslides?

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3. What can be done to try and prevent these landslides?

Next step learning: Find about New Zealand's worst landslides in recent history.

5. [Field Trip Summary](#) [27] (mp4 file 73Mb or [watch on Vimeo](#) [28])

Now that you have completed the Geohazard field trip, spend some time thinking about what you have learnt.

1. What have been the highlights of this field trip for you and why?
2. How will you prepare for geohazards in your area?
3. Help your teacher to fill in the online evaluation form for this field trip.

Source URL: <https://www.learnz.org.nz/geohazards152/videos>

Links

- [1] https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d01-01-why-nz-has-geohazards_0.mp4
- [2] <http://vimeo.com/126544250>
- [3] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d01-02-tsunami-and-new-zealand.mp4>
- [4] <http://vimeo.com/126304848>
- [5] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d01-03-earthquakes-and-new-zealand.mp4>
- [6] <http://vimeo.com/126304849>
- [7] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d01-04-the-hope-fault.mp4>
- [8] <http://vimeo.com/126307301>
- [9] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d01-05-landslides.mp4>
- [10] <http://vimeo.com/126305141>
- [11] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d02-01-2013-cook-strait-earthquake-sequence.mp4>
- [12] <http://vimeo.com/126422302>

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- [13] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d02-02-past-tsunami-at-big-lagoon.mp4>
- [14] <http://vimeo.com/126422301>
- [15] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d02-03-researching-the-vernon-fault.mp4>
- [16] <http://vimeo.com/126422300>
- [17] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d02-04-active-faults.mp4>
- [18] <http://vimeo.com/126421879>
- [19] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d03-01-tsunami-risk-in-new-zealand.mp4>
- [20] <http://vimeo.com/126540525>
- [21] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d03-02-detecting-and-preparing-for-geohazards.mp4>
- [22] <http://vimeo.com/126540527>
- [23] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d03-03-landslides-in-cities.mp4>
- [24] <http://vimeo.com/126545548>
- [25] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d03-04-landslides-in-rural-areas.mp4>
- [26] <http://vimeo.com/126540526>
- [27] <https://www.learnz.org.nz/sites/learnz.org.nz/files/Field%20trips/gh152-d03-05-field-trip-summary.mp4>
- [28] <http://vimeo.com/126540528>