

## **Geohazards Video Answers**

**Thursday 30 April**

### **1. Tsunami Risk in New Zealand**

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

1. How did the boulder bank form?
  - From a rock landslide off Mackay Bluff then longshore drift has caused the boulders to build up in a bank
2. Why is there a risk of tsunami in Nelson?
  - Because there are active faults offshore and a subduction zone north east of the North Island that could produce tsunami, plus distant sources such as South America.
3. Which parts of New Zealand are at risk of tsunami?
  - All of New Zealand's coast line, some parts more so than others

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

### **2. Detecting and Preparing for Geohazards**

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

1. What is GeoNet?
  - A network of monitoring instruments around New Zealand designed to monitor earthquakes, volcanoes and tsunami
2. What is a seismograph?
  - An instrument that measures the shaking from earthquakes
3. How are tsunami monitored?
  - By tide gauges and seismometers that are used to locate off shore earthquakes

Next step learning: Check out the [GeoNet website](#) to find out about recent earthquakes.

### **3. Landslides in Cities**

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?
  - Because a large landslide occurred here in the past and the land is still moving
2. What happened in 2011?
  - A large rain storm caused more landslides in this area and some houses were damaged
3. What has been done to stabilise the cliffs above the road at Tāhunanui?
  - Drainage pipes have been put in, retaining walls built, bolts drilled into the cliffs and concrete sprayed on to the cliff

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

#### **4. Landslides in Rural Areas**

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?
  - A shallow slip
2. What can cause these types of landslide?
  - Heavy rain, earthquakes, steep slopes and weak rock
3. What can be done to try and prevent these landslides?
  - Drain slopes and plant trees

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

#### **5. Field Trip Summary**

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?
  - Answers will vary
2. How will you prepare for geohazards in your area?
  - Answers will vary
3. Help your teacher to fill in the online [evaluation form](#) for this field trip.