

## **Geohazards Video Questions**

**Wednesday 29 April**

### **1. The Cook Strait Earthquake Sequence**

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**

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**

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**

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.