# NEW ZEALAND NATURAL HAZARDS INFO AND ACTIVITY BOOK

## This book belongs to:

### FIX. FASTEN. DON'T FORGET.

www.eqc.govt.nz



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# OUR NATURALLY ACTIVE LAND

## Kia ora and welcome to Aotearoa!

It's really beautiful here. There are soaring mountains, lush forests and beaches that seem to stretch on forever. But the land we see is shaped by unseen forces beneath our feet.

These forces have the power to create natural hazards that can have a big impact on our land, homes and people. Lets take a look at some different types of natural hazards we have here in New Zealand...



Follow the numbers to trace the coastlines of Te Ika-a-Māui (North Island), Te Waipounamu (South Island) and Rakiura (Stewart Island).

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### Rūaumoko

In Māori mythology Rūaumoko is the god of earthquakes and volcanoes. It is his movements below the earth that causes the ground to shake and volcanoes to erupt.

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View Matahi Brightwell's amazing carving of Rūaumoko at Te Papa in Wellington.

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#### Storms and floods | Ngā āwhā me ngā waipuke

Storms and flooding happen often in New Zealand and can affect any part of the country. Homes in low-lying areas near waterways are generally more at risk of flood damage.

#### Did you know?

The strongest wind gust ever recorded in New Zealand was 250kph at Mt John in Canterbury!



#### Volcanoes | Ngā hū

New Zealand's North Island is an active volcanic region, and while eruptions (and the earthquakes that often come before them) are rare, we can't predict them.

#### Did you know?

The Oruanui eruption of the Taupō volcano was the world's largest known eruption in the past 70,000 years!



**Hydrothermal Activity | Ngā ngāwhā** Most of New Zealand's hydrothermal activity – hot water moving below the Earth's surface - happens in the Taupō volcanic zone, from White Island to Mt Ruapehu.

#### **Did you know?**

The Pōhutu Geyser in Rotorua is the largest geyser in the southern hemisphere and erupts around 20 times a day!



#### Tsunami | Ngaru taitoko

A tsunami is a series of waves caused by large movements on the sea floor. When tsunami waves reach shallow water they slow down and become higher. The waves rush over land and up rivers, moving faster than a person can run.

**Did you know?** Tsunami waves can be higher than a 10-storey building and travel over the sea as fast as a jet aeroplane!



### Earthquakes | Ngā rū

New Zealand lies on the boundary where two of the Earth's colossal tectonic plates collide. Earthquakes usually occur along faults, which are existing fractures in the Earth's crust. The strength of the quake depends on the area of fault that has shifted and the amount of movement.

#### Did you know?

Every year there are around 150 earthquakes in New Zealand that are strong enough to be felt by people.



### Landslips | Ngā horo

Landslips range in size from a few falling rocks to the collapse of entire mountainsides. They are one of the most common natural hazards to affect New Zealand properties, with homes near hills or steep slopes most at risk of damage.

#### **Did you know?**

In 1846 a landslide at Waihī on the shores of Lake Taupō overwhelmed the Māori village of Te Rapa.



## **PREPARING** YOUR HOME FOR NATURAL HAZARDS

Natural hazards can seem a bit scary. But the great thing is there's a lot we can do to prepare for when they happen.

One of the best places to start is with your home. Let's take a look at some of the **Fix. Fasten. Don't Forget.** steps you and your whānau should take to make your home stronger and safer.

For more info on these steps head to eqc.govt.nz/be-prepared

Look up at your roof. Can you see a tall **CHIMNEY** made from concrete or bricks? These can be dangerous in an earthquake so it's a great idea to have them secured or removed.

Is your **ROOF** heavy or light? Lightweight materials that are well secured to framing are likely to be safer in an earthquake.

Use brackets to fasten **TALL AND HEAVY FURNITURE** to the wall. Think about bookcases, cabinets, TVs, fridges and hot water cylinders.

Things like storing food, water and making an emergency plan are really important preparedness steps too. Head to happens.nz for more info.

> Move **HEAVY HOUSEHOLD ITEMS** to lower cupboards and secure **FRAGILE ITEMS** with Blu tack or non-slip mats.

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**FOUNDATIONS** connect a house to the ground. Ask your parents to check that your home's foundations are in good condition, secured to the house and properly braced.

## NATURAL HAZARD WORDFIND

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#### **WORDS TO FIND**

Earthquake Volcano Tsunami Landslip Flood Hydrothermal Chimney Bookcase Microwave Foundations Roofs Walls Hazard Fix Fasten Don't Forget



Can you spot all 13 differences? Keep a special eye out for the 11 household items that have been fixed or fastened.

## SPOT THE DIFFERENCE



