

## Coastal processes and natural hazards

On 23 March, 15 geography teachers from the region's secondary schools gathered for an inservice day on coastal processes and hazards. The day included presentations on curriculum links by Wayne Smith, HOD Geography, Stratford High School, and Taranaki coastal processes by Taranaki Regional Council Consents Officer, Mitchell Dyer. Then it was on to the bus to visit New Plymouth and north Taranaki sites. These sites included Turangi Road where the laharc coast meets the papa coast and Onaero Beach settlement and Urenui Beach to view and discuss erosion issues. The day was highly informative and worthwhile with the teachers contributing greatly to the success of the day.



Geography Teachers from around the region on the seawall at Onaero Beach settlement.

## Omata School environmental programme

Children at Omata School are taking responsibility for the bush area behind their school.



Children from Omata School checking on their possum bait stations.

The children and teachers use the area as a resource for learning about the environment, in the environment. They are also taking part in pest control to combat the rat and possum problem they have in their bush. They want to see and hear more native birds in their bush and to achieve this, the rats and possums have to go.

With the help of Taranaki Regional Council pest management officers, the children have set up bait stations. They regularly monitor the bait taken and look for signs of possum impact. *This is a wonderful example of children taking some action for the environment.*

## ENVIRONMENTAL AWARD TO Inglewood Primary

Inglewood Primary School's efforts in establishing a successful recycling system and improving air quality around their school earned them an environmental award recently. Taranaki Regional Council Chairman, Ross Allen and Councillor Donald McIntyre presented the award after being treated to an excellent assembly. The school received a plaque and \$100 toward school funds.



Inglewood Primary School - environmental award winners.

Other schools in the region are beginning to network with Inglewood staff and students to help set up recycling at their school.

All schools in the region are eligible for environmental awards. Your activity does not have to be major but should benefit or enhance the Taranaki environment.

## Explore/swim/visit

Teachers and classes may want to consider an educational day out in Stratford exploring the Pioneer Village in the morning, having a swim and lunch at the Stratford indoor heated pool and visiting the Taranaki Regional Council in the afternoon for a guided visit to the biology laboratory.

For further details contact:

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## Bits'n'Pieces

### Bell Block School Recycling

Congratulations to Bell Block School for establishing a recycling system at their school. The school property manager, principal, staff and pupils have all got behind the project and made it happen at their school. Recycling saves natural resources, energy, landfill space and can improve air quality around your school by eliminating incinerator use.

### Estuaries Kit and Life's a Beach

Recently two very good resource kits have been produced by regional councils with funding from the Ministry for the Environment's Sustainable Management Fund.

The *Estuaries Kit* which has been posted to all secondary schools in the region provides information and activities on estuaries and includes a section on Taranaki's estuaries.

*Life's a Beach* deals with human induced erosion and coastal management and is available free to all secondary schools from Environment Bay of Plenty, Freepost 20, P O Box 364, Whakatane.

### Websites

There are some fantastic web-sites on civil defence. <http://www.tc.co.nz/emergencies.html> is the Taranaki Regional Council Civil Defence site with good information for us locals. <http://www.mocd.govt.nz> is the New Zealand Ministry of Civil Defence site which has a wealth of information on disasters and preparedness including a timeline of New Zealand disasters from 1840 to 1980. <http://volcano.und.nodak.edu> is a fun site from overseas about volcanoes.

### Answers from page 3: Crossword - Across:

(1) Volcano, (2) Fire, (3) Lava, (4) Wahine, (5) Flood, (6) Tornado, (7) Turtle, (8) Safe, (9) Chemicals, (10) Tsunami, (11) Cyclone, (12) Quake, Down: (1) Civil Defence

**Survival Kit:** Civil Defence recommend you include: torch and radio (with batteries), first aid kit, spare clothing, bottled water, medicines, canned or dried food.

## NEXT SITE.

Trees will be the focus for the next newsletter. There will be a unit of work on trees available, visits from the Education Officer, and trees available to plant at your school. For more information contact Paul.

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TARANAKI  
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TARANAKI REGIONAL COUNCIL  
NEWSLETTER TO SCHOOLS



Schools in the Environment - Autumn 1999 - No.9

## Education for future generations

I often ask the children I work with from various schools in the region, what sort of environment they want when they have children of their own or when they are grandparents.

While this passage of time is difficult for them to contemplate, on every occasion they say they want an environment that is even better than today or at the very least no worse than it is today.

The next question that springs to mind is, how is this going to be achieved? There appears to be two obvious ways, legislation and education. Legislation is clearly a very important and effective tool for improving the environment but while it may change behaviour it doesn't necessarily change attitude. For example, if there is a fine for tipping waste into a stream, this may stop people doing it, but only for fear of being caught. It is not possible to police every metre of every stream so this activity may continue if people know there is only a slim chance of being caught.

On the other hand, education which changes people's attitudes and values is likely to have a positive effect on the environment in the long-term. If people actually understand why waterways should not be polluted and believe that it is wrong to tip waste into streams, they won't do it. Of course knowledge and awareness are important components of environmental education as they help change attitude and behaviour.

All of this supports the rationale for working with the region's school-aged children on environmental education. If we give children the skills and knowledge, make them aware of the issues, and shape their attitudes and values (using critical thinking rather than indoctrination) they will have the ability to take actions to ensure a better environment for future generations.

Paul Radich



The theme for this term's newsletter is Civil Defence. Civil Defence is an important section of the Taranaki Regional Council whose aims are to prepare the region for emergency situations. This newsletter will highlight some of the events that we need to be prepared for in this region and the children's page will provide some activities for children to try. There will also be a unit of work available on Civil Defence. *This will be launched later in the term with a series of teacher training afternoons.*

## River and coast review

Last term was the busiest yet with many classes throughout the region participating in river and coastal studies. Children learnt about the special nature of different environments and ecosystems and how they need to be looked after.



Hawera High School biology students measure dissolved oxygen levels in the Patea River.



Devon Intermediate children take part in a clean-up of New Plymouth beaches as part of their coastal study.

Some classes are going a step further and actually taking some ownership of their local environment by doing beach and river clean-ups and sending in data from their river and coastal monitoring.

## Seaweek competition

Seaweek had a higher profile in the Taranaki region this year and it was pleasing to receive some wonderful entries to the seaweek competition which offered children the opportunity to say what they liked about the Taranaki coast.

Congratulations to Annaleeza West of Riverlea School for her winning entry. For her efforts she received a cruise around the Sugar Loaf Islands for her family courtesy of Chaddy's Charters. Merit awards went to Kate Ballantyne of Eltham Primary and Mallory Thompson of St Joseph's School Stratford. It was great to read the entries and realise that the Taranaki coast has so many treasures or taonga for people to enjoy.

Beautiful greenish-blue waves glistening  
in the sunlight - world famous surf  
The black sand also sparkling  
I love Taranaki beaches



Annaleeza West of Riverlea School proudly displays her winning Seaweek entry and certificate.



# CIVIL DEFENCE

## What is Civil Defence?

Many people's image of Civil Defence is of people running around with sandbags, tarpaulins or cups of coffee in an emergency. While these activities can be required in an emergency situation, Civil Defence is more about **planning for and responding to emergency situations.**

If we plan for emergency situations, it reduces the chances of serious injury or loss of life. It also reduces fear and panic associated with these events.

This page looks at some of the events most likely to occur in our region and some of the planning in place for them, and how individuals can be prepared.



## Volcano

A special concern for us in Taranaki

Our magnificent mountain as well as dominating our landscape provides a major threat, because it is a volcano capable of producing lahars (mud flows) affecting many parts of the region.

If volcanologists agree that a life-threatening eruption is likely to take place we would have to evacuate our homes if we live in a danger zone. In such an event, there are plans in place to provide accommodation for us in other regions throughout the country.

### How would Civil Defence know about an eruption?

Taranaki has six seismometers (devices to measure ground tremor) located on the mountain. They provide information about activity under our volcano which is analysed by experts who could tell if a major eruption was likely.

If an eruption does occur, we should stay indoors as much as possible and be prepared to evacuate if necessary. Civil Defence will tell us if it is necessary to evacuate. If an eruption occurs water can easily be polluted. Be sure to save a water supply.



## Earthquake

New Zealand is known as the Shaky Isles for a good reason

Every New Zealander probably has experienced an earthquake in their lifetime. We all wonder when a big one may hit and most of us know a few earthquake drills.

### To be prepared for an earthquake we can take some precautions such as:

- securing furniture or heavy and dangerous items to stop them hurting us
- knowing how to turn off water, gas and electricity
- having emergency items and getaway kit ready and available

### During an earthquake we can keep ourselves safe by:

- keeping calm
- taking cover under a table and holding the table legs or bracing ourselves in a doorway, holding the door open
- staying inside and away from objects which may hit us.



## Storm

Taranaki is especially prone to storms

Being on a peninsula on the exposed west coast of the North Island we do experience storms. Recent examples include Cyclone Bola which caused a lot of damage to the region in March 1988. Other events have been cyclones Drena and Fergus in December/January '96/97 and a tornado which ripped through Inglewood and Bell Block in August 1990.

### If warned of a storm emergency, we can prepare by:

- having our survival items and getaway kit ready and available
- securing loose objects on and around our house
- bringing pets inside
- putting tape across windows, in case they break.



### During a storm we should:

- stay inside and close curtains to slow flying glass
- shelter in a strong part of the house if destruction occurs
- listen to the radio for Civil Defence advice (you will need batteries).

### When is a Civil Defence emergency declared?

If Civil Defence staff consider that during an emergency, normal emergency services such as fire, police and ambulance need additional resources they advise the Mayor who has the power to declare a civil defence emergency.

### Some facts about Taranaki Regional Council Civil Defence

- Civil Defence headquarters is located on Marsland Hill, New Plymouth.
- Information from seismometers is recorded at Civil Defence Headquarters and monitored. Data is also sent to scientists at Wairakei for analysis.
- Civil Defence has 15 phone lines and 2 fax lines for emergencies.
- 200 volunteers are available to be called up in an emergency to provide practical help.
- There are radio networks in place, where schools, farmers etc in various parts of the region, including outlying areas, can provide information on local weather conditions, or call for help.

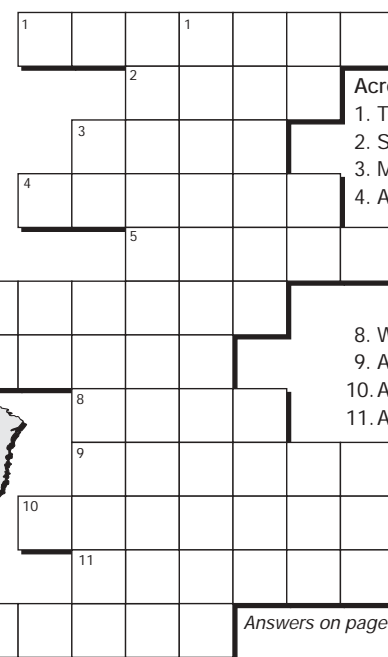
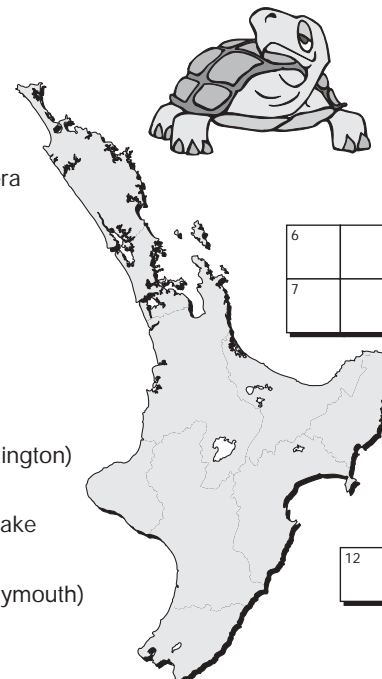
# Junior Environmentalists Page



## Some North Island Disasters

Locate and label these North Island events

- June 1886 - Eruption of Mt Tarawera
- February 1931 - Napier Earthquake
- August 1948 - Tornado Hamilton
- December 1953 - Tangiwai Disaster
- April 1968 - Wahine Disaster (Wellington)
- March 1987 - Bay of Plenty Earthquake
- March 1988 - Cyclone Bola (New Plymouth)
- August 1990 - Tornado (Inglewood)



## Crossword

Across

- The type of mountain in our region.
- Something which can happen after an earthquake.
- Molten rock.
- A ferry that sank in a storm in 1968.
- New Zealand's most common disaster.
- Violently spinning air.
- An animal with good protection in an earthquake.
- We must keep ourselves (?) at all times.
- A spill of these could lead to an emergency.
- An event that can affect coastal places.
- A weather event usually coming from the tropics.
- A movement of the earth.

Down

- People who plan for and respond to emergency situations.

Answers on page 4.

## Survival Kit

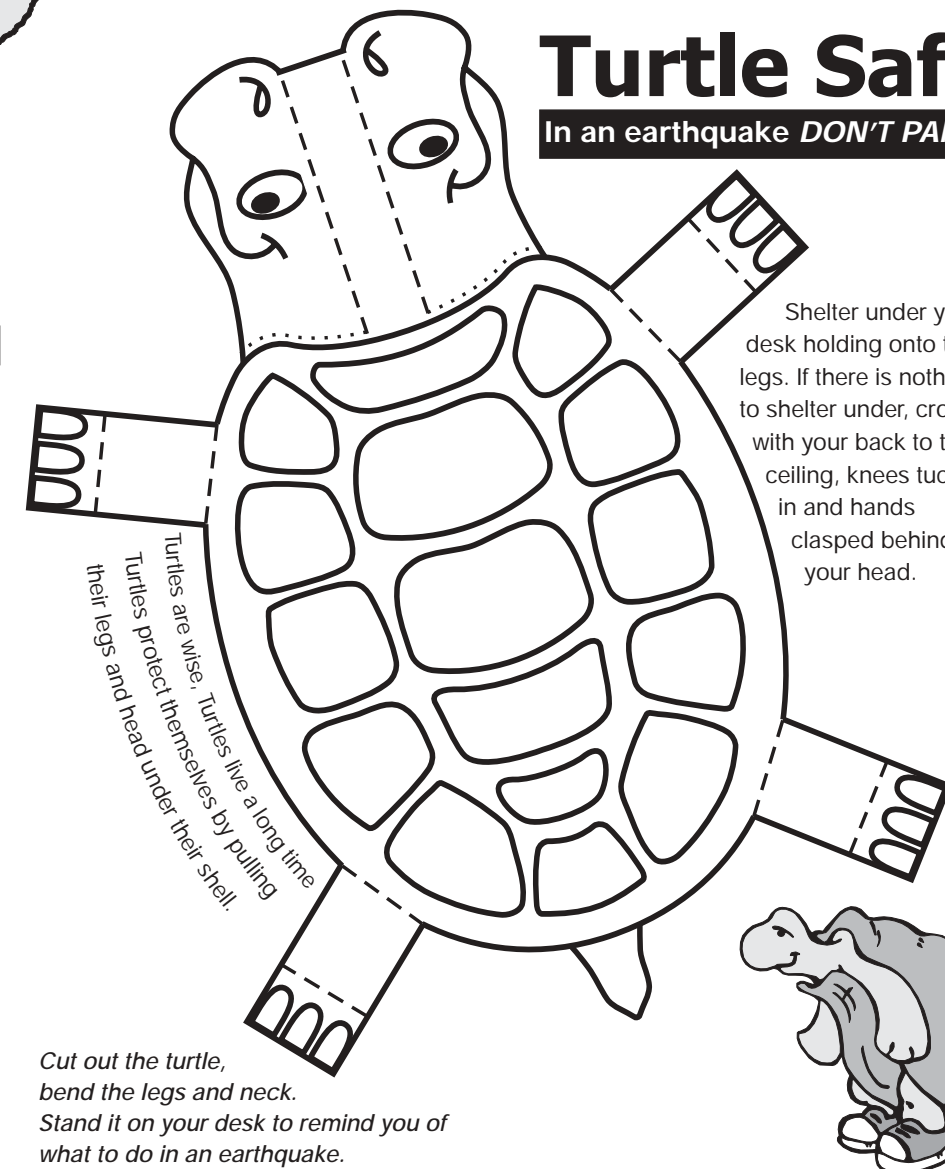
From the list below, highlight or circle items that you would include in a disaster survival kit.

(Be prepared to explain your answers)



## Turtle Safe

In an earthquake DON'T PANIC



Shelter under your desk holding onto the legs. If there is nothing to shelter under, crouch with your back to the ceiling, knees tucked in and hands clasped behind your head.

Turtles are wise. Turtles live a long time. Turtles protect themselves by pulling their legs and head under their shell.

Cut out the turtle, bend the legs and neck. Stand it on your desk to remind you of what to do in an earthquake.



## Flood

New Zealand's most common disaster

Because many of our settlements are near rivers, and forest that once slowed the run-off of water, has been cleared, many New Zealanders are faced with the threat of flood.

Low lying areas of north Taranaki and parts of the eastern hill country are especially prone to flooding. People in these flood prone areas are usually very aware of what to do in flood events.

### People who live in flood-prone areas should know:

- that Civil Defence warnings will be broadcast over radio
- where their nearest Civil Defence centre is
- how to turn off electricity and gas at the mains
- how to reach higher ground.

### Other practical things to do before a flood strikes include:

- keeping your valuables, some clothing and food above what you judge to be the high water mark
- storing weedkillers and other hazardous chemicals high to prevent contamination of water
- having your survival items and getaway kit available and above flood water level.

Recently in Northland a child tragically died after being sucked down a stormwater drain. Never play around drains or waterways in a flood.