

A soggy end to term one

As I write this, the remnants of Cyclone Debbie are saturating our region and other parts of New Zealand. This deluge, following on from our virtually non-existent summer reminds us that Mother Nature has a mind of her own and there is not a lot we can do about it. Despite the reluctant summer, only a couple of my school events this term had to be postponed which has been lucky for all concerned.

I am often asked if I provide RAM (Risk Analysis Management) sheets for field trip sites. My answer is always 'No, I don't provide them for any site' primarily because I know very little about the people involved on the trip. I am usually unaware of important considerations such as student behaviour, student's special needs, accompanying adult competency etc. But when asked, I do provide details about the site such as site accessibility, car parking considerations, proximity of toilets, cell phone range, land ownership, electric fences and general details about the site which would help with the writing of the RAM sheet. I do everything I can to ensure a school visit is as safe as possible for the students and adults involved. RAM sheets, as you know, do not eliminate injuries but well written ones definitely lessen the chances of injuries occurring.

Bookings for term two are now full, so I apologise in advance for not being able to support any further requests, in person. But I may be able to supply resources for you so please don't hesitate to ask. Terms three and four already have a number of bookings but there are some spaces available, so please get in touch if you think I can help.

Our SHMAK (Stream Health Measurement Kit) has been used a lot more in the last couple of years which is very encouraging. On top of its use with Yr12/13 science classes, we are now offering SHMAK courses to adult groups such as several Taranaki iwi who want to monitor the health of streams within their tribal area. This is another example of 'citizen science' in action. What's more, the adults seem to really enjoy it!

Kevin

Waste Minimisation and Recycling

Society in general is certainly more aware of the need to reduce, reuse or recycle its waste. This issue of SITE provides information, support and background to schools as they deal with their 'waste' situation.

A view of the NPDC Materials Recovery Facility (MRF) from the education room. For details regarding a visit to this facility see page two.



'What's the Plan Stan?' is refreshed?

**WHAT'S THE
PLAN STAN?**



MENU ≡

What's the Plan, Stan? is a resource to support schools, teachers, students, and parents to develop the knowledge and skills to prepare for emergency events.

Many of you will have used or will be aware of the Ministry of Civil Defence and Emergency Management's teaching resource 'What's the Plan Stan?' First published in 2007, updated in 2009, it has now been refreshed and I believe, improved. The resource is available at <http://www.whatstheplanstan.govt.nz/>



Waste Minimisation

Waste - What does it mean?

Most people regard 'waste' as material or substances that are no longer required or able to be used effectively and have lost their economic value.

We have made significant progress in Taranaki in shifting our thinking towards using waste as a resource and to reduce the amount of waste that needs to be disposed of. This includes reducing our resource consumption and recovering or reusing recyclables such as paper, cardboard, plastics and glass.

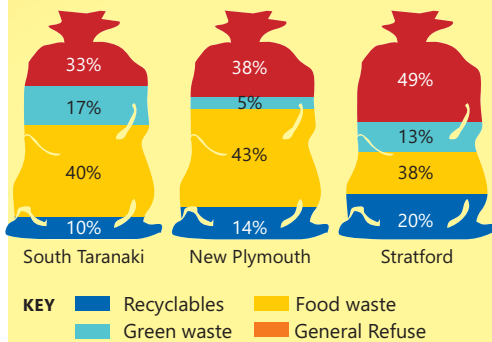
How are Taranaki's educational institutions doing?

Many schools, early childhood centres and WITT (Western Institute of Technology at Taranaki) are commended for the progress they have made in reducing their waste and/or recycling more effectively. Other institutions are doing okay but some could do more.

How are people in Taranaki and New Zealand doing on an individual basis?

The latest figures show that each person in Taranaki produces around 500kg of waste that ends up in the regional landfill at Colson Rd, New Plymouth. While lower than the national average, the figure is hardly one for us to congratulate ourselves on. But in one way we can, as the figure has improved since the turn of the century when the New Zealand average was close to a tonne per person.

Latest figures on percentages of what makes up the household waste going to the regional landfill from our three districts.



I am sure you will agree that we could all be doing a whole lot better. In all three districts, over 50% of the material going to the landfill should be going to other areas.



School Waste audits

School waste audits are a great way to establish how well you are currently doing and to identify how you could do better. Basically all you need is waste that has been set aside to be collected to go to the landfill. The best day for conducting a waste audit is the day preceding its collection. The waste is spread onto a large sheet or tarpaulin and from there sorted into categories such as recyclables (paper, cardboard, plastic), compostable material (food scraps, tissue paper, tea bags etc), glass and general waste. When completed, the bags of each category are weighed and totalled. Some classes present the data in the form of pie graphs to interested groups such as the school Board of Trustees. In some cases, decisions can be made on the spot regarding immediate improvements. More often, the Council Education Officer, after talking to the Council Waste Minimisation Officer revisits the school with some suggestions that if implemented would improve the school's performance and save the school considerable money. Many

schools repeat the audit twelve months later to assess the progress that has been made. The Council provides all the materials required for the waste audit, except for the tarpaulin/large sheet and obviously the waste material itself.



How can we help?

Invite

- ◆ Kevin to take a class lesson on the benefits of waste minimisation.
- ◆ Kevin to take a waste audit at your school and provide follow-up suggestions.
- ◆ Kevin to take a lesson for Year 4 and above about what happens to our recycling and what it can be made into.
- ◆ Kevin to take a composting/worm farm lesson.

Organise

- ◆ A visit to the Materials Recovery Facility (MRF) in New Plymouth. Contact Mike Baker at NPDC ph 06 7596060.
- ◆ A visit to the Stratford Transfer Station. Contact Mike Oien ph 06 765 6099.
- ◆ A visit to the Egmont Refuse and Recycling site. Contact Raymond Buckland ph 06 278 0555.



Environmentalists Activity Page



Decoupage

'Waste' objects can be turned into art.

Decoupage is the art of decorating an object by gluing coloured paper cut outs onto the object in combination with special paint effects, gold leaf and other decorative elements. Usually, an object such as a small box is covered by cut outs from magazines. I have seen some very impressive examples.



Word Matching

Use the meanings on the left to unjumble the answer on the right.

1. Crushed glass used in glass making	llcuet	
2. A place for disposal of waste on land	filadnll	
3. Things not made from plants or animals	onirgainc	
4. A dangerous gas	thnema	
5. Decomposed organic matter	opstmoc	
6. Valuable material	esroucers	
7. Retaining natural resources for the future	noitavrescon	
8. Using again	ginreus	
9. Process where material can be made into something else	gniyclcer	
10. We used to call this rubbish or garbage	tewas	

True or False?

1. Newspapers can be made into egg cartons.
2. Plastic detergent bottles can be used in the making of carpet.
3. Old magazines can be made into glass jars.
4. Metal cans can be made into new metal cans.
5. Cardboard is often made into wooden trestles.
6. Common paper can be made into newspaper.
7. Plastic water bottles can be made into buckets.
8. Glass bottles can be used in the making fibreglass.
9. Glass bottles can be used in the making of rocket ships.
10. Ordinary paper can be made into the outside of pens.



Five facts from the 'Did You Know?' waste file.



Recycling and composting helps to reduce the amount of waste that goes to landfills, resulting in less harmful gas emissions being released into the earth's atmosphere.



If you throw away your aluminium cans, they can stay in that form for up to **500 years** or even more. So, recycling is the way to go.

In the USA, recycled water is taken from sewerage systems and after being treated is **reused** for laundry, car washing, fire fighting, road cleaning and toilet flushing.



One drip every second from a leaky tap can waste up to **2,041 litres** of water in a year. That's a lot of water!



In the UK, 16% of the money spent on a product pays for the packaging, which ultimately ends up as **rubbish**.



It was a pleasure to host four Year 7 classes from Sacred Heart Girls College at Pukeiti Gardens in March. The classes had been studying invertebrates this term so the stream study fitted right in. Here two students from Andrew McAlister's class are taking a good look at the invertebrates in their tray. Answers from page 3



This and That

Taranaki Regional Council Awards

Nominations for these annual awards open in July so please consider nominating your school or early childhood centre. We know great things are happening out there so please don't hold back when nominations are called.

Science Fair 6, 7 and 8 August

It's time for your students to get their thinking caps on in preparation for the Science Fair in New Plymouth in early August.

Whareorino School at the rocky shore



The Whareorino School's twelve students recently had a fine time exploring the rock pools near their school. I had a fine time as well and the muffins were super tasty!

NPGHS Year 12s study the Waiwhakaiho River



Two groups of NPGHS students under the leadership of teacher Eddie Brown used four sites on the Waiwhakaiho River to gather data such as water clarity, water temperature, stream velocity, water pH, water conductivity and river observation and sketching in March.

Thank you letters

I am very grateful for the many letters of thanks I receive from students following a class visit or field trip. Here is a selection of sentences received in recent letters.

Thank you for all the time you spent with us, it's really paid off.

When you came to talk with us at school, I was enchanted about how many living animals can be found in rock pools.

My favourite creature was the snakeskin chiton, I learned how it moves around a rock to get its food each day and how it gets back home again.

The rocky shore visit was a blast and I hope we get to go again next year.

Vogeltown School senior classes assess the Huatoki Stream



Four classes from Vogeltown School checked the stream health, water temperature and water clarity at four sites on the Huatoki Stream in February. Each class visited two sites and the data gathered was used in follow-up activities at school. A great way to start the school year Vogeltown.

Answers from page 3

1. culler
2. landfill
3. inorganic
4. methane
5. compost
6. resources
7. conservation
8. reusing
9. recycling
10. waste

True or false All of the statements are true except for numbers 3, 5, and 9.

For assistance or information on environmental education contact:

Kevin Archer, Education Officer
Taranaki Regional Council
Private Bag 713, Stratford 4352
Ph: 06 765 7127 Fax: 06 765 5097
education@trc.govt.nz
www.trc.govt.nz