

Winter is here!

The last couple of months have been quite mild and for the most part hardly in keeping with winter as we know it.

Proof of the mild June weather was my support for eleven school groups with river or wetland trips in that month. Normally June is a month when indoor lessons are very popular and teachers seldom request support for outdoor studies, but all the field trips went ahead and were great fun as well. I realise that the pre-trip organization that is required now far exceeds what was needed when I was teaching and I commend those teachers who are still prepared to do it. It would be a great pity for children if excursions to learn in the environment became too difficult because of all the rules and regulations. Common sense is the key to all of this and I firmly believe that sound, thoughtful and careful planning will highlight any potential problems and astute teachers will always take the necessary steps to minimise risk.

Most teachers and their classes visiting the Rainforest School at Pukeiti have been amazed at the impressive changes happening there. While these renovations can cause some minor inconvenience, our school activities are largely unaffected. We have hosted 88 school, early childhood or special interest groups at Pukeiti since we opened the Rainforest School programme in 2012. Thank you so much to everyone who has enthusiastically supported our programmes at that special place. Our other garden venues, The Riverside School at Tupare in New Plymouth and the Woodlands School at Hollards in Kaponga offer different activities and the feedback we have received from teachers, parents and students suggest a visit to either venue is well worth considering.

Earlier last term, I talked to two classes from Central School in New Plymouth about air quality in Taranaki, New Zealand and indeed the world. The lessons were particularly relevant to the classes at Central School, as late last year the Council, with the agreement of the school, erected an air quality monitor in the school grounds. A number of air quality monitoring sites are strategically placed around our region. They provide useful information for everybody via our website or the LAWA site (lawa.org.nz). But this is the first monitor erected in the grounds of a school in our region and the Council thanks Central School for allowing us to do so. Please contact me if you would like me to take this lesson with any of your classes.

Kevin

TRC education programmes

This issue of SITE provides a general overview of the educational programmes we currently offer at the Council. Although most of the programmes and activities are loosely aimed for the middle school areas, nearly all of them can easily be adapted for all levels. In addition we have a wide range of resources which schools are welcome to use, when they are available.



The Taranaki Regional Council education programmes give students the opportunity to learn through activities which highlight the value and diversity of our natural environment.

Below: Education officer Kevin Archer helps a student to collect samples during a river study.



Environmental education is for everyone

The youngest student I have hosted was a three-year-old girl from an early childhood centre who took a full part in a stream study. The oldest student was an 85-year-old man who really enjoyed his time at the Rainforest School at Pukeiti, as an adult helper. He announced to everybody at the end of the session that it was the best day he had ever had at school!

Please contact me if you want support for any of the programmes that are listed below or if you think I might be able to help. If I can't help, I can often suggest someone who may be able to.

The programmes offered are available mainly in school terms and within school hours but there is some flexibility with both, which might appeal to some early childhood centres and other groups. To have the greatest value, many of the field trips mentioned should be preceded by classroom lessons.

The following programmes are available throughout the year.

Stream studies

Nearly every waterway in Taranaki is suited to a study, which at a younger level involves invertebrate sampling, water clarity and water temperature readings. Year 12 and 13 classes and adult groups often use the SHMAK (Stream Health Measurement Assessment Kit) for their lessons.



Rocky shore studies

Most of the best sites for rocky shore studies are in north-west Taranaki from Manihi Rd (Rahotu) to Airedale Reef (Waitara) with Kawaroa in New Plymouth being the most favoured.

Wetland studies

There are some excellent wetland areas suitable for school visits. Popular ones are Nowells Lake, near Hawera and Barrett Lagoon and the Peringa Park wetlands in New Plymouth.

Pond studies

Virtually every pond is inhabited by a variety of invertebrates and many also support a wide variety of pond plants and birdlife.



Garden studies

As mentioned elsewhere in this newsletter, visits to the Rainforest School at Pukeiti have been popular for some time while the recently written study units for the Woodlands School (Hollard Gardens - Kaponga) and the Riverside School (Tupare - New Plymouth) offer different activities.

Civil Defence Emergency Management (CDEM)

These lessons focus on the hazards that we need to be aware of in Taranaki, through to how we can prepare ourselves to cope with an emergency situation. A visit to the Taranaki Emergency Management Office (TEMO) in New Plymouth is a useful extension to this study.

Pest management studies

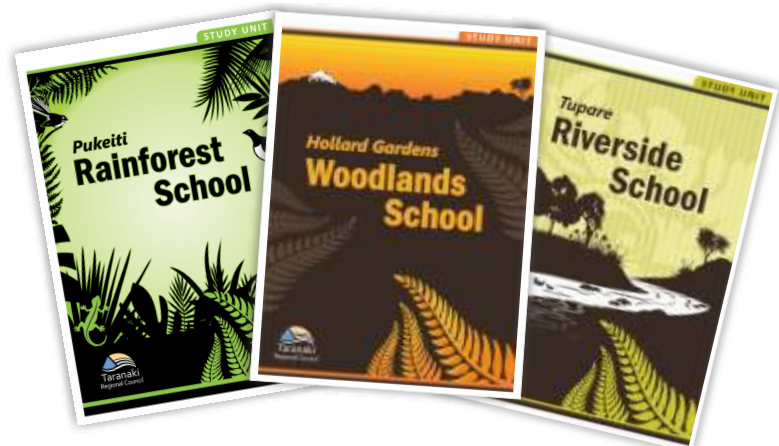
This activity is available as an activity at all our gardens but can also be taken in schools. The lesson covers the pest animals we deal with in Taranaki, the damage and harm they cause and the various methods we use to control them. The stuffed animals seem to fascinate many students.

Mountain studies

A mountain trip is more successful if the visit is preceded by a class lesson which focuses on Mt Taranaki's eruptive history, how we can prepare ourselves for an eruption and what actions we should take during and following one. Stream studies are popular with school groups visiting the mountain and there are a number of short walks available where students can learn about weather stations, seismometers, mountain landmarks etc. Many school groups use me as a part of a three-lesson rotation in combination with the Department of Conservation (DOC) and other groups.

Transport

The Council operates a number of bus services in our region. We have personnel available who talk to classes about these services.



Study units

Most of the activities listed are supported by study units which can be downloaded from our website (trc.govt.nz) or are available on request.

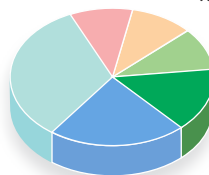


Environmental Multi-choice Quiz

- Taranaki's largest landfill is called:**
 - A – The Colson Rd landfill
 - B – The Smart Rd landfill
 - C – The Taranaki landfill
 - D – Everybody's landfill
- The 'Three Rs' of waste minimization are:**
 - A – Remind, reply and resign
 - B – Reduce, reuse and recycle
 - C – Recognise, respond and react
 - D – Review, reuse and recover
- Many of Taranaki's stream and rivers:**
 - A – Start and end on the mountain
 - B – Start at the sea and make their way up the mountain
 - C – Start on the mountain and end at the sea
 - D – Start and end at the sea
- Eels have a fascinating life cycle which often involves:**
 - A – being born in rivers and living most of their lives in the sea
 - B – living for long periods in rock pools
 - C – being born in the sea and living most of their lives in freshwater
 - D – continuously going backwards and forwards between the rivers and the sea
- A wetland is an area that is :**
 - A – always under water
 - B – is never under water
 - C – always suitable for swimming in
 - D – a great habitat for many birds, fish, insects and reptiles
- The word riparian means:**
 - A – on river banks
 - B – slowly ripening pears
 - C – plants growing in two lines
 - D – tree planting on sand dunes
- CDEM means**
 - A – Civil Defence Emergency Management
 - B – Central Districts Equestrian Meetings
 - C – Count Down Emergency Management
 - D – Coins, Dimes, Euros and Money
- Mt Taranaki is**
 - A – an active volcano, currently dormant
 - B – an extinct volcano
 - C – liable to erupt next Saturday
 - D – a mountain that is extremely easy to climb, all year round.
- A riffle in a river is:**
 - A – a fast flowing, deep area
 - B – a high waterfall
 - C – a shallow, rocky area
 - D – a place in the river that is ideal for swimming in.
- The possum remains a pest animal in Taranaki because:**
 - A – it eats the leaves of many of our native trees
 - B – it eats many birds' eggs
 - C – it is a carrier of some destructive diseases
 - D – all of A, B and C

Topics for debate

- We should all recycle more than we do already.
- Taranaki is the best region to live in New Zealand by miles.
- Our air quality in Taranaki is the best in the world.



Word find

Can you find 28 hidden words in this puzzle?

L Q U Y Q M M I J X N P S N W J E B B P
 E L C Y C E R G T H J Z W L N G X N D R
 C M A E R T S A O C X Q L R S H S V L A
 L K O F Y R N V Z Y U I O Y Q J D N E D
 Z B Y B R E O X J T F Q F M V R K G P W
 G B I Y M E I L M D S A N U E P B P J D
 W L K R H L T O N X Q S A V E X Z R K P
 C A U E S T U A R Y R P I M D P X V Y S
 O X Y G E N L E W S P R R I Y R B X H R
 K A W P T T L A W H K O A O Z L S X I P
 A B F A E J O S E X S T P L X Q Y N K M
 D N I W I K P W T H D E I L D J C S W D
 Y N C K T T T F F Z X C R A O M N U E B
 W C Q Q M G D B K T N T L F B E T I Q V
 H T V I A C G X I B T I D N X E G U P C
 E X U D M S O N A C L O V I K E T P L E
 I X N F S S C Q S V Y N K A G V T I C Z
 H O O J D T H P T U U C L R F Q S B H A
 M O U Q N X K A A S Y Z L H O Q J D A W
 B R P R K A R J W K R F X E X Q J U F S

landfill	coast	volcano	rainfall
recycle	air	lake	wind
mountain	stream	estuary	bicycle
river	land	pollution	oxygen
wetland	freshwater	save	healthy
kiwi	protection	riparian	whitebait
eel	extinct	tree	waterfall

Get crafty

Gather together a collection of materials that are recyclable or reusable (cardboard, aluminium, tin, glass, plastic, string, wool etc). Use some sticks to construct a mobile or piece of art from this material.

Maths Wizard - Recreational time

Suppose your average household recreational time consisted of the following activities:

- 10% Visiting places such as a park, a library, swimming pools, etc.
- 15% Visiting natural places like the mountain or the sea.
- 10% Sleeping, but not in bed at night.
- 15% Watching TV.
- 10% Reading.
- 10% Playing on a computer or cell phone.
- 10% Playing with friends.
- 10% Playing sport.
- 10% Doing other things.



- Draw a pie (circle) graph to show the activities as shown.
- Try to monitor what your own personal percentages are for one week. You might start by doing one day at a time and allocating the hours spent on each activity. At the end of the week you could add up the hours you spent on each of the above or others and work out your percentages accordingly.
- Draw a pie (circle) graph to show your percentages.
- You could compare your results to those of your friends.



Above: Isaac Peters and Mason Seator from the Jumpstart Early Childhood Centre in New Plymouth take great care of their seedlings during their recent visit to the Rainforest School at Pukeiti.

Left: A Norfolk School junior student showed great interest while visiting Hollard Gardens.

This and That



Taranaki Schools Environment Group



The Taranaki Schools Environment Group on Facebook has been going great and since the launch back in February there's been a surge in new members to the group. There have been some interesting stories posted to the group from initiatives like Project Hotspot which uses citizen science to help protect coastal threatened species in Taranaki to a great photo of a Gold Stripe Gecko which was spotted in Omata. You can join the Facebook group by searching for 'Taranaki Schools Environment Group'. See you there!

Stratford Primary Tui Enviro Group takes action!



Stratford Primary Tui Enviro Group has helped the school make great progress to reduce waste at their school in the last year. They have now re-set their goals and are hoping for a zero-waste result across the entire school. Their recent waste audit was extremely well organized and should provide the data required for them to achieve their goal. Good luck to the Enviro team.

Environmental Awards 2016

Once again, the Council will be rewarding outstanding environmental work by individuals, community groups, farmers, businesses and educational institutions through its annual Environmental Awards programme. For over 20 years many schools, early childhood and tertiary education centres have been recognized for their outstanding achievements. Please feel free to nominate yourselves for an award as we aren't always aware of the many excellent environmental programmes that are happening out there.

Nominations for this year's awards are open and close at 5pm on Tuesday 30 August. The winners will receive their awards at a presentation evening on 3 November in New Plymouth. To make a nomination or for further information please go to trc.govt.nz/environmental-awards or contact: Rusty Ritchie ph: 06 765 7127 Or email: rusty.ritchie@trc.govt.nz

Gotta get on the bus, the Citylink bus, let's go let's go ...



Citylink bus video - Let's go!

Please take a look and a listen to this Citylink video where John Aidan, Ashtrin and Dinnie from Dman Entertainment – Taranaki take you on a musical ride, highlighting the extent of the Citylink network and features of the service including on-board bike racks, wheelchair access and the benefits of smart cards. To hear and see the video and further information on the Citylink, Southlink and Connector Services go to taranakibus.info.

Answers from page 3

Quiz Answers

1.A 2.B 3.C 4.C 5.D 6.A 7.A 8.A 9.C 10.D

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