

Eco Buzz

Edition # 35

Term 3, July 2009



What's inside?

- Sustainable practices
- Enviroschools updates
- Ecofest - be involved
- Longfin Eels
- Monsters of the Deep
- Measuring Change
- And much more


NELSON CITY COUNCIL
te kaunihera o whakatū


tasman
district council
lifestyle

Kia ora koutou – welcome to the new look electronic EcoBuzz!



Rob



Claire



Karen & Jo

Contact

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After the very successful school survey (thank you to everyone who took the time to reply to us) we have made the decision to not print EcoBuzz as most of you are happy with an electronic copy. You can, of course, still print your own copy! Thank you for helping save costs and looking after the planet too.

There is so much happening locally and globally it is a truly important time to be taking positive action. We hope this issue of EcoBuzz helps you and your class do so.

Congratulations to Salisbury School for winning the morning tea for completing the school EE survey we asked you to fill in June.

Nā mātou noa na **Karen, Rob, Jo and Claire**

Action you may wish to take: The Government has cut funding to both the Enviroschool Foundation and the Education for Sustainability Advisors – if you feel strongly about this then write to either:
The Prime Minister – Hon. John Key or the Minister of Education – Hon. Anne Tolley
Freepost Parliament - Private Bag 18 888 Wellington 6160.
These are freepost so no stamp is needed.



Some useful websites:

www.ecokids.co.nz - your students or you can sign up as a top secret eco agent for Tasman/Nelson and save the world by completing real assignments, play games and win prizes!

www.enviroschools.org.nz - the funding from government may be cut but Enviroschools isn't going away. If you don't already use this sight check it out – chock full of info and ideas.

<http://efs.tki.org.nz> – the new NZ Education for Sustainability website by government – go figure!!

School Travel Plans

Wakefield School, as part of their School Travel Plan, now has Walking School Buses up and running. These started on June 22nd with nearly 50 children joining the two routes. This was a fantastic number as it was a very cold and icy day. Hopefully, the numbers walking regularly will increase as others realise the benefits of walking to school. The Walking School Bus was able to use their brand new kea crossing as part of their safe and active journey to school.



Children at Stoke School held an art competition with the winning entries being used as the front and back cover of their recently launched School Travel plan. Two other pictures have been made into postcards, which will be delivered to local residents during the year. These are aimed at getting the local community to be more aware of children biking, walking and scooting to school and create a safer environment for those children. Stoke School are also getting new bike cages to replace their old ones which are in a state of disrepair and not a particularly pleasant place to store a bike. It is hoped that when the new ones are installed it will encourage more students to cycle.

Nayland School have been working hard with the Feet First campaign. Each week, there has been a prize given to the class most involved with active travel to and from school. The classes have also used the information in other areas of the curriculum. It is hoped that their Walking School Buses will be re-established in Term 3.

With the Feet First Walk to School project, there is a Picture Book competition currently taking place. This is designed to get schools to think about Active Travel. Check it out now on www.feetfirst.govt.nz. Any school can enter – you do not have to be taking part in the Walking challenge, so this includes rural schools too!

For information about School Travel Plans and Walking School buses contact sarah.downs@tdc.govt.nz or phone on 03 5438542



CHECK OUT THE NEW KIWI CONSERVATION CLUB
[WEBSITE – www.kcc.org.nz](http://www.kcc.org.nz)

LOTS OF ASSISTANCE WITH ENVIRONMENTAL
ISSUES.

Nature and Fun for Kiwi Kids! Teach children to enjoy,
respect and understand the natural world....

Remember a class set of 30 mags (per issue) of the
national KCC mag is only \$74.

Join online at www.forestandbird.org.nz or email office@forestandbird.org.nz or
ph 0800 200 064 for credit card payments

EMAP – The Environmental Monitoring and Action Project

has several new resources. www.emap.rsnz.org.nz

1) a coastal monitoring programme that could be used either at a rocky shore or estuary environment. There is a data sheet for recording information about species, a field guide and species identification resource in draft format. Look in resources under hydrology there is a section called coastal resources.

2) They are keen for schools to carry out mini science investigations e.g. measuring the rainfall in your local area. There is a curriculum planner and supporting resources and access to equipment to carry out work. This curriculum planner can be accessed at the following link
www.emap.rsnz.org/pdf/Atmosphere%20matriz.doc.



Show off at Ecofest!

Please consider having a display of photos, things (penguin boxes, stream monitoring equipment, painted recycle bins, rodent traps, flax varieties) and/or PowerPoint's and/or scrapbooks and/or teaching plans.

Roger Waddell (EfS) and Kate Cobb (Enviroschools) are running the schools' stand at Ecofest again.

For the last 5 years Nelson/Tasman schools have profiled their environmental and sustainability initiatives at a special Education for Sustainability/Enviroschools stall – for the last 2 years the stall has won Best Community Stand! We would love to see you there!

Contact Roger Waddell (your EfS adviser) or Kate Cobb (Enviroschools Regional Coordinator).

www.ecofestnelson-tasman.co.nz



Here be Monsters!

Exploring the Deep Ocean

The deep ocean is the most common habitat on planet earth! Yet more people have visited the Moon than the deep ocean! It is very cold, mind-numbingly dark, almost as vacant as space, and has a crushingly stupendous pressure! Even here there is life! And the more we probe, the more life there is. About two new species of deep sea creature are discovered each week, and we have explored about 3% of the deep ocean.

The largest animal migration in the world occurs every day surface waters. Thousands of species are involved; can you name one of these animals? For most of us, the end of our fishing line is as deep as we know about; but this, quite literally, is just scratching the surface! Responsible for smoothing the earth's weather patterns, replenishing our atmosphere, it provides the largest source of edible protein in the world, and increasingly our own food is being sourced in the deep ocean.

What is it like in the deep ocean? How do we find out what is down there? How do we sample it? How do you find your way around? Is deep sea fishing sustainable? What do these creatures look like?

A Brand New Programme from the NZ Marine Studies Centre and the Touch the Sea Aquarium, Mapua, attempts to answer some of these questions. This is an interactive programme, with lots of hands on activities. We have real deep sea frozen specimens* for students to examine and touch. Plus models to use, experiments, activities, and the students can try their hand at deep sea exploration by sampling our deep sea container.

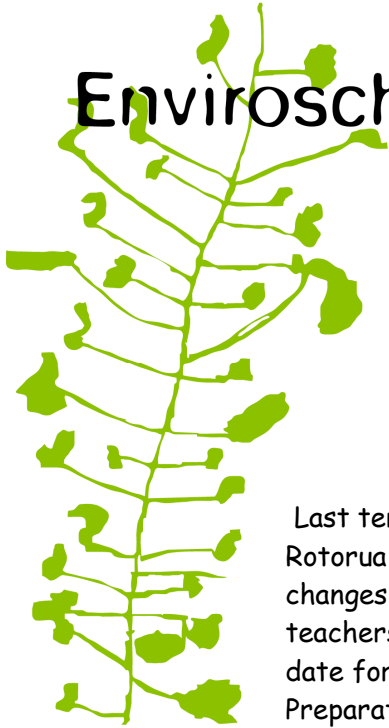
Take a trip to the most inhospitable habitat on the planet in the most comfortable way possible! School entry to the Touch the Sea Aquarium is \$4/child, all accompanying adults are free.

*(Please note that the deep sea specimens are frozen. They will not last very long like this, by the beginning of term four I expect them to be unusable. If you want your class to see these rare specimens 'up close and personal' you will need to book soon!)



Phone/fax Richard on Ph 540 3755, or 021 131 8334, email: richard.dehamel@otago.ac.nz

Enviroschools



Kia ora koutou,

It has been another busy term for the Enviroschools team. Naturally we were very disappointed to hear that Government's plans to cut funding for a number of

sustainable education initiatives, including Enviroschools and Education for Sustainability. However, the signs at the moment are very positive and point towards a stable future for all of the Enviroschools in our region. We are extremely grateful to both councils and especially to Karen Lee and Rob Francis for their ongoing support for the programme. The team at Head Office are also confident that they will be able to continue to provide a significant level of guidance and support and all planned projects are going ahead.

Last term the team joined facilitators from all over the country at a hui in Rotorua to explore the updated kit. We are really excited about the positive changes that have been made and look forward to sharing these with our lead teachers in term 3. We'll be in touch shortly to arrange a suitable time and date for a PD session.

Preparations for the National Scrapbook are now well underway. All Enviroschools are invited to submit a page (or half page) for inclusion in the book and a number of students have taken up the opportunity to be involved in the front cover design competition already.

The topic for the 2009 Scrapbook is 'Creating a Sustainable Community'.

Wishing everyone all the best for a happy and sustainable term 3,

From Kate, Claire & Sarah x

As always, the enviroschools in our region have been involved in lots of interesting and inspirational action projects. Here are some updates -

ECO HUT CHALLENGE

By Tayla Regan Room3 Salisbury School

"We are called the Nature Friends group and we are doing the Eco-hut challenge. So far we have found a place to build it which is in the Native Garden. We wrote to the BOT to get permission to build it. We have a scrapbook to record all that we have been doing. We have looked at the history of Salisbury School and what used to be here. That was amazing as it looks a lot different to what it does now. We brainstormed what it could be made of and how it might look. Last week we had a math lesson on the size it will be and we estimated the size but were way out! "

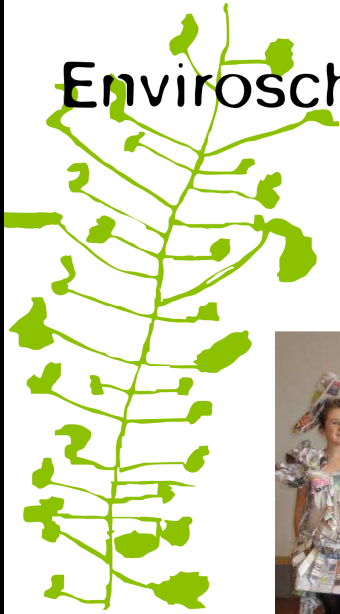


Who is involved in the Eco Hut Challenge?

In our region 5 schools have signed up to be involved in the Ecohut challenge so far – **Ngatimoti School, Salisbury School, Nayland Primary, Motupipi School and Central Takaka.**

The challenge runs until March 2010 and you can register at any point. However we do suggest that if you want to make the most of all of the learning opportunities in this exciting project, it would be a good idea to sign up this term. To get involved contact andrea.ricketts@enviroschools.org.nz

Enviroschools



Motueka High School MECA Group–

The Newspaper competition was run to highlight the Ecofest funky fashion show and also to try and get a range of students involved. Teams signed up with a maximum of 5 people with one as their model. The teams had half an hour to create an item of clothing from just newspaper and cello tape. There were three categories – best overall, best theme and wackiest. The students that were involved had heaps of fun and it worked really well.



The Envirogroup at Nayland College

have completed their transport survey, one of the first steps in their exciting project to encourage more cycling/skateboarding/walking to school instead of driving. To find out more contact them on naylandenviro@gmail.com.

Motupipi and Central Takaka Schools in Golden Bay have joined forces with Fonterra – a spring fed stream that runs beside the Fonterra factory has been adopted by both schools for ongoing monitoring (using EMAP) and rehabilitation work. Fonterra get the plants and looks after the site between school visits, while the schools will keep a record of what is done and the changes (hopefully improvements) to the stream habitat and surrounds. A real win-win. Thanks Fonterra for the great BBQ too!

Photos – right – planting into dead watercress and mud. Cover photo – happily planting seedlings.



The Nelson/Tasman ReGeneration team has been launched! Students from across our region gathered for a two-day workshop last term. They had the opportunity to link up with other like-minded individuals and representatives from local initiatives such as CODERED, Transition Towns and Forest & Bird and brainstorm ideas. As part of the workshop the students planned some action to take on World Environment Day – a ‘freeze’ to demonstrate the need to reduce our carbon emissions to a safe level of 350ppm.



Eco Friendly Lawn Mower at Nayland Primary

A homework task to redesign an everyday household item to be more environmentally friendly, has resulted in a new lawn mower for Nayland Primary School.

William Fowlie, a Year 4 student, designed his push mower on the front of a push bike. He said that it was eco friendly as it needed nothing but people power. It would be fun, the grass would go back into the lawn to keep it moist in the dry months and it would put nutrients back into the soil.

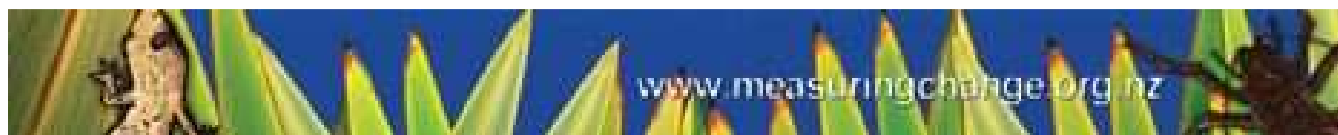
With William's drawing, I approached the Recycling Centre to see if they could help make his design a reality. Will MacPherson who works at the centre said he would be happy to build it, and he had already made a similar mower.

The mowerbike was constructed and has been put to good use at school by many of the children. It works and yes, it is fun!

Janice Cowley

Class Teacher

Nayland Primary



MEASURING CHANGE

Last term saw the launch of the Measuring Change, a web-based tool that will help measure the outcomes of environmental action in schools.

Students at Nayland Primary School, an Enviroschool, were keen to be among the first to try it out. A group of six 7 yr-olds, with the support of their facilitator, completed a detailed survey of the school grounds and collected data for the 'Living Landscapes' section. The students created a scale map by measuring areas of the whole school grounds, and worked out the proportion that was occupied by buildings, gardens and playgrounds, etc. This information was uploaded on to the national website.

According to the students: "We worked hard to make our map of our schools grounds. We measured the whole school grounds, the buildings, and the gardens and counted the trees. We found that we have 87.5 square metres of food gardens and 1635 square metres of native gardens. We have 48 trees that are taller than the school and only two fruit/nut trees. We would like to plant more fruit trees, a walnut tree, a kowhai tree and some swan plants. We also would like to make our sandpit cleaner and safer."

Every year students at the school will repeat this study and upload their information, meaning that they can track their improvements over time. The school will receive progress reports that can be used to acknowledge effort, celebrate achievements and to help get funding and support for further projects.

The Measuring Change tool is available to all New Zealand Schools to help monitor their progress towards sustainability goals in four theme areas - waste, water, energy and landscapes. If you would like to know more or would like to view the resources please visit www.measuringchange.org.nz or speak to your Enviroschools facilitator who can provide you with support.

Measuring Change

Improving environmental outcomes



WHAT'S YOUR CHANGE?

How much environmental change have you made at your school?

What does this mean for your school, your community, and your country?

Find out with Measuring Change, a web-based tool that will help you measure the environmental outcomes of action at your school.

Upload your data to the Measuring Change website and get progress reports showing how well you're doing in comparison with other schools in New Zealand.

www.measuringchange.org.nz



ZERO WASTE

What's your waste situation?
Has your school made a difference by recycling and composting, and could you make more?



ENERGY

Is your school a good steward of limited energy resources?
Can you identify ways to be more efficient?

WATER of LIFE

How much water does your school use?
How efficient are your water appliances?



LIVING LANDSCAPES

Is your school alive?
What proportion of your landscape is built, paved, or covered in grass and garden?



The sooner you start to measure your change, the sooner you will have a full record of the progress that you're making.
Check out the website www.measuringchange.org.nz to find out more.

To find out more in your school talk to:



The Golden Bay Kindergarten – “Garden of Abundance”

At the Enviroschools Kindergarten in Takaka the children put together a wish-list of what they wanted in their garden – it included a few things the staff have just trusted will arrive on their own – like the fairies but lots else has happened due to a very helpful community – like the very healthy banana palms in huge pots inside, the permitted pet gecko and a wonderful garden.



The garden was planted for the children to really experience – they pick, eat, roll, play and use it as they want. This includes making preserves, juice and lunches. Other produce like kidney beans are just collected for their magic!

“Here we go round the chamomile lawn” - a feast for the senses.
There’s no ‘Keep off the grass’ signs here!



The children have returned again and again to the garden to play, to sit, to harvest and to eat. We planted with abundance in mind and the children interact with the garden as they wish.

The children pick and create as they desire – a garland of calendula this day!

From garden, to kitchen, to tummy. The children learn about harvesting, preparation and rewards.



The Longfin eel – an endemic taonga

Aotearoa is where the long-fin eel have made their home for around 15 million years. Recent investigations have revealed the secrets of their birthplace, an ocean trench ten kilometres deep, near Tonga. Long-fin exist only in NZ so they are endemic treasures. They have a life/breeding cycle that is quite awe-inspiring.

Around the 1940s government officials and keen trout fishermen dubbed eels “indigenous vermin” ordering a mass cull to eradicate them, despite that, they prevailed. The loss of around 90% of New Zealand’s wetland areas has impeded the eels’ ability to reach their desired destinations, about 50% of their ideal habitat has been lost, while 35% of their sea to river access is now obstructed by hydro-electric dams.

Mike Joy, Freshwater ecologist of Massey University has recently discovered more cause for concern about a decline in long-fin numbers. Surveys have revealed a serious lack of long-fin elvers in our rivers, but also that very few females are reaching the Tonga trench - where long-fins go to spawn. It is possible that urban streams may become the only stronghold for long-fin. Commercial eel-fishers are targeting larger eels, and these are mature breeding females, being caught in rural streams and larger rivers.



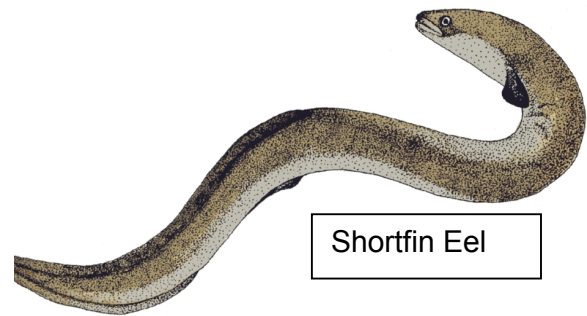
Long-fins favour clean water so any projects aimed at improving water quality will help. If you and your students would like to learn more about eels, and take action toward protecting their habitat and our water quality, please contact:

Melanie McColgan - Waimaori Stream-care
waimaori@ncc.govt.nz (03) 548 1803

Or check out our stall at Eco-fest! Trafalgar Centre, Nelson - 15th/16th August.



Longfin Eel



Shortfin Eel

Eel facts

- ✂ Long-fins females head downstream to the ocean around May/June, swimming about 2500 kilometres to the “Tonga trench” to breed, then die.
- ✂ The “glass eels” that spawn there return en masse to Aotearoa, eventually finding their way up creeks and rivers.
- ✂ Glass eels return from from July to December, but in highest quantity at the same time as inanga and other whitebait, around September.
- ✂ The “see-through” appearance of the glass eel is similar to whitebait, except they are leaf shaped before reaching the elver stage, when they darken through pigmentation.
- ✂ Glass eels have swum for a year to reach NZ and the elver stage.
- ✂ Short-fins have a shorter life span than long-fins, who take longer to grow and may reach 80 or more years old!
- ✂ At breeding age the eel’s belly changes from yellow to silver, the head shape changes and fins darken.



24th October 2009 is the International Day of Climate Action (or 23rd for schools wishing to be involved with projects in school time) It would be fantastic to see lots of schools in our region getting involved, uniting to combat climate change and showing our leaders that we need action THIS year.

Visit www.350.org to find out more about this exciting initiative.

Seal the Deal: 40% by 2020

Climate change is happening. 2,500 international scientists, gathered for the Climate Change Congress held in March, reported that climate change is occurring faster than previously predicted and called for “rapid, sustained and effective mitigation” claiming that inaction is inexcusable and would lead to irreversible climatic shifts. The ways and means of tackling climate change are available and plentiful; it is now just a matter of putting them into practice on a global scale. They argue that delaying significant action will ultimately cost more and be harder to achieve. Our environment and society are at considerable risk. Climate change is no longer a distant threat; it is significantly impacting our environment, lives and economies today.

This December the UN Climate Change Summit will be held to agree global carbon emission reductions after 2012 based on individual countries’ targets. New Zealand will announce our 2020 target for carbon emission reductions this August. Nelson Environment Centre (NEC) requests a 40% reduction in carbon emissions below 1990 levels by 2020, a target in-line with current scientific findings to avoid dangerous climate change, which can have a major impact on Nelson. As a consequence NEC is running a Climate Action Campaign during July and a local petition to Dr Nick Smith - our MP, Minister for the Environment and for Climate Change Issues – asks the Government to commit to this 40% reduction target. You can sign this petition either by going online www.nec.org.nz, signing at the Nelson Library and various shops around Nelson, Stoke and Richmond or visiting our Saturday morning campaign stall in Montgomery Square car park next to the market.

If you want to find out more about climate change and a range of other current environmental issues then we have just the thing for you! The NEC and Brook Waimarama Sanctuary are hosting ‘Reel Earth Film Festival’ from 30th July – 9th August at the Suter Gallery Cinema. This environmental film festival will be showing a wide range of informative and inspirational films, covering an array of topics and including many award winning documentaries. Tickets and programs will be available from the State 6 Cinema and other outlets to be announced.

If you want any more information and if you want to help email Hannah:

hannahnorbury@nec.org.nz or Camille: info@nec.org.nz or phone 03 5459176.



The Yellow Eyed Penguin's Backyard, - a term 4, 2009 interactive, online project

NZ school students, from year 1 to 10, are invited to design a yellow-eyed penguin- friendly habitat restoration for an online New Zealand International Science Festival, Yellow- Eyed Penguin Trust and Department of Conservation, Science and Technology Education project.

YEP's Backyard (<http://www.megabright.co.nz/YEP/home.html>) uses Edward de Bono's Other People's Views to look at yellow-eyed penguin issues from a dog's, fisherman's, farmer's and other's points of view. Using this information the group creates a habitat restoration plan to submit to experts for feedback. Students also assist the project by providing student-friendly information for their peers on the website. To register contact: monika@megabright.co.nz

An Update from Roger Waddell

1. **Trees for Survival** - TFS has just released an excellent resource for schools – a primary one & a secondary one. It provides lots of ideas, units, and practical instruction on growing and planting trees. For more information, visit the TFS website or contact me.

2. **Bad news - Education for Sustainability cuts.**

Well, you have probably heard the devastating news that **the Government has cut all sustainability education initiatives to schools**. For EfS that means the national contract stops at the end of this year, leaving 30 advisers nationally without a job – including me. For Enviroschools, the government funding stops but there are several other income sources so the national coordination team will continue. Local Enviroschools facilitators will still be employed by Councils.

What does this mean for you? In terms of the EfS contract, there will be no more support for NZ Curriculum & sustainability (one of the Principles schools are required to demonstrate). I have 16 schools on PD contracts with me at the moment – ranging from literacy and numeracy integration to NCEA courses to workshops and planning in the NZC. Hands-on PD for teachers in carbon, climate change, waste & energy, streams, biodiversity, school-based environmental initiatives will go. Sustainability is a key aspect of the future for our students so it is a real blow for our education system. However, the Government has stated that sustainability education is not a key goal for New Zealand students.

I would like to take this opportunity to thank all the people I have worked with these last 6 years, firstly as Enviroschools Regional Coordinator & facilitator & then as your EfS adviser. I have seen huge changes in schools – authentic, vital learning that is a perfect context for numeracy and literacy & developing lifelong, connected students.

3. **Schools and EfS professional development.** Some snippets.

- **Tasman** and **Mahana** schools are undergoing professional development in literacy & sustainability integration within the NZC. At Tasman, Fred's amazing class play was a great finale for all their sustainability learning. Both schools are looking at what makes for action competent students and implementing environmental projects.
- Local secondary schools **Nelson College**, **Nelson College for Girls**, **Nayland College** and **Motueka High** began their PD term 2 in EfS. They have been looking at the NCEA sustainability achievement standards and exploring carbon footprints for their schools.
- The business and sustainability enterprise project at **Nelson Girls** and **Nelson College** involving students working with local organisations and businesses to come up with sustainability solutions continues this year. Students earn NCEA credits in achievement standard 90810 "Plan, implement and evaluate an action for a sustainable future."

4. **EMAP** - The Environmental Monitoring and Action Programme continues in our local schools. This offers stream, atmosphere or soil monitoring – a great way to embed relevant science and sustainability investigations in your school. I can take your class monitoring your local stream or the weather. Results can be loaded on to the www.globe.gov website (good for maths/IT/science and sister-school links). **Hope School** and **Westmount** have used the **Brook Sanctuary** for their EMAP/stream science; **Brooklyn School** has a keen group working on the Brooklyn Stream; **Riwaka School** has an entire year group doing a NIE unit with EMAP based on the Riwaka River; **Salisbury School** continues to use the weather station provided by EMAP for ongoing atmosphere monitoring; **Nayland Primary** has its Nayland River Rockets team monitoring and taking action on Poorman's Stream.



Late this term, I hope to have a cluster meeting and workshop of schools doing (or wanting to do) stream science. All the best for your future – and your students.

Roger Waddell. (My contact details until December 2009):

Education for Sustainability Adviser

UC Education Plus University of Canterbury Nelson campus
86 Selwyn Place NELSON - Ph 03 5460584 or 021 1671 246

Roger.waddell@canterbury.ac.nz



WOW! ZERO WASTE HERE WE COME!

Winners in the WES Schools Zerowaste Challenge,
Pumpkin pizzas, a rubbish monster saved by a knight in shining
armour, wings made from old venetian blinds

- what extraordinary creativity & what a lot of work! CONGRATULATIONS!

WES is proud to announce the winners of the Schools Zerowaste Challenge held in Nelson and Tasman in May. The aim of this challenge was to celebrate the positive steps schools are making and to encourage schools to move forward in their waste minimisation journey, with a focus on REDUCING waste.

**A HUGE thank you to Bunnings and The Warehouse for providing
all the fabulous prizes,
to Claire Webster (TDC) and Jo Martin (NCC) for helping, and to
Bronwyn Pownall at Bunnings and Kate Cobb (Enviroschools) for judging the entries.**

The winners are:

Salisbury School - won a bin full of gardening equipment for making a huge leap forward, getting their residential cottages on board with the school's waste minimisation work. Students at each cottage (80 in all) now place their bagged recyclables on the school driveway. The newly established Residential Recycling Team collect at least 20 black bags each time! They take these to the Resource Recovery Centre in Beach Rd and sort them into the right collection bins. Their efforts are rewarded with "Green Tokens", which can be cashed in for useful rewards. "The students have fun, it brings a stronger sense of purpose and it is a way for our small community to work together", says Carolyn Shirtliffe, a keen environmentalist.

Nearly thirty students have also been busy creating their own Wearable Arts costumes for a fashion show. They are using materials that would otherwise be discarded, e.g. worn-out bicycle tyres, left-over party decorations, inflatable toys, and broken roman blinds. "Not only does this reduce waste, it is also changing our students' perceptions. What was once seen as rubbish is now seen as useful, beautiful, even precious", says Carolyn.

Hope School - won a worm farm for making significant progress and having everyone involved. They conducted a waste audit at the start of the challenge and discovered they had lots of rubbish, especially food and paper. They set up a compost system for food scraps and paper recycling bins. They also made recycled paper, set up their gardens to attract more butterflies and birds, learnt how to worm farm and tried hard to reduce waste. When they repeated the waste audit at the end of the month, they noticed a BIG reduction.

Parklands School

Parklands students won a bin full of gardening equipment for the huge progress they have made and for their creative presentation to the whole school. They focused on reducing lunchbox waste and made a rubbish monster to show how much rubbish the school was generating. They made the monster out of rubbish and designed it to look 'cool but scary'. At the next school assembly, a knight in shining armour defeated the monster. With all food scraps composted, or sent to feed staff pigs and chickens, and students taking plastic home, the wheelie bins are empty!

Waimea Intermediate - won a kowhai tree for a project working well. Student volunteers assist the groundsman with chipping and mulching ALL the school's greenwaste and spreading it round the school gardens. This saves a considerable amount of greenwaste from ending up in the landfill and provides rich compost for the trees and shrubs.



Parklands school Whanau Enviro-Reps Haere-po and Finn, show off our rubbish monster... a small example of the rubbish generated in one day at Parklands! We now have no big wheelie bins full of rubbish!

Ngatimoti Primary - won a \$50 Warehouse voucher for finding innovative ways to reduce their waste and providing excellent staff role models. The school held a week of festivities and the pumpkins grown in the school gardens using composted food scraps were not WASTED! Each class tried out different recipes, including pumpkin pizzas, choc chip/pumpkin muffins, walnut and pumpkin cookies as well as the more usual pumpkin soup and pie! "Growing our own vegetables reduces WASTE as we don't have to travel to buy them", commented the students. "We have also dried and packaged the seeds, providing the community with seeds to plant and grow pumpkins next year!"

As an EnviroSchool, Ngatimoti has a large number of projects working well, including a 'Trees for Survival' unit and students also designed a huge mural for "a plain, ugly wall" to promote a healthy message, and used paint from the RESENE community paint source.



Nelson Central School students won a compost bin for their major effort to reduce waste. The students focused on reducing the amount of plastic wrap in their lunchboxes. Plastic wrap is non-recyclable and ends up in the landfill. Students collected all the lunchbox plastic in the first week of the term and made it into a ball that was bigger than a soccer ball! Challenged to make the ball smaller, students were awarded stickers for lunchboxes that contained no plastic wrap. Children made posters to raise awareness. In the last week of the challenge, they collected all the plastic again and made a second ball. It was MUCH smaller!

Nayland Primary School students won a wheelbarrow full of garden equipment for their creative ideas, widespread student involvement and projects working well. As a Silver-level EnviroSchool, Nayland Primary strongly encourages students to improve their school environment. For the challenge, they held a "Sculpture Day" to create art from lunchbox rubbish, with impressive results! Sculptures, currently on display, include jandals with soles crocheted from plastic bags, a bird's nest with eggs made of plastic lunch wrap balls, shopping bags and flowers. A very long chain of chippie packets was made at the start of the challenge and, at the end of the month, the reduced number of packets was graphed. The school has lots of waste-reduction schemes, including: making scrap-paper pads to sell to parents, composting, worm-farming and using Bokashi for food scraps, using the compost to grow their veggies, propagating seedlings to plant their stream banks, and many others.



Above: Broadgreen students and Caretaker go for the challenge
 Top left : Nelson Central Students show how much plastic wrap they have reduced in their lunchboxes.

Clifton Terrace School students won a \$50 Bunnings voucher for their impressive progress in reducing their waste. The school used to send 2 skips of mixed rubbish to landfill every month, i.e. 6 cubic metres. A waste audit conducted in each classroom convinced everyone to get on board to reduce their waste, especially the plastic waste and the thirty litres of unwanted food per day! They reduced their lunchbox waste, composted food scraps, and gave some to feed their worm farm and local pigs. They also recycle aluminium cans, paper and cardboard and have a school policy for minimising waste. By the end of the challenge, the school had succeeded to reduce its waste to 2 cubic metres per month, i.e. by two-thirds!

Broadgreen Intermediate School students won a native tree for their significant progress in reducing waste. Students have significantly decreased their waste by reusing and recycling paper and card, and recycling glass and plastics. They have set up a large-scale bokashi system for food scraps, using a 120L drum, and have connected all the school computers to only one printer to reduce paper use.

**Contact: Sarah Langi - Waste Education Services -
 Nelson and Tasman
 Email: sarahlangi@nec.org.nz**

Ph: 03 545 9176



UNICEF Children's Climate Forum 09

– of the 5 young people (aged between 14 and 17) selected to represent New Zealand 2 are from Tasman / Nelson!

Congratulations to both Abby Ward from Nayland College and Travis Mills from Waimea College.

Look up www.unicef.org.nz and go to the Children's Climate Change Forum 09 to view more information. Or email takeaction@unicef.org.nz to find out how to be involved.

A quote from Travis – “Climate change is important to me because our world is so beautiful with so many amazing creations and I want my grandchildren's children to be able to experience every single one of them.”

And from Abby – “I am extremely excited about the opportunity to engage with young greenies in Copenhagen.”

Full credit to these fantastic young people but also our hats come off to all the teachers who have helped inspire, educate and encourage them to pursue their dreams.

We look forward to some amazing stories from these two young leaders.

Be a part of EcoBuzz too!

The deadline for the next issue of EcoBuzz is September 30th – how about letting others know what you and your students are up to?

Email content to Claire.webster@tasman.goct.nz



Zero Waste Grant applications

for Schools/EECs/Community groups - send your form in by Friday 31 July 2009.

Or contact - Mary Curnow Zero Waste Grants Administrator - Waste Education Services Nelson Environment Centre 03 545 9176 for forms.

Answers to Activity three - a Climate Change Quiz

1 – B - Sheep wool. Trees make a ring for every year of growth – healthy years have bigger rings. Ice tells scientists all sorts of things – like how much carbon dioxide is in the tiny air bubbles trapped in the ice from many years ago.

2 – C – Many scientists predict the climate change will cause the water in the oceans to go up between 15 and 95 cm in the next 100 years. Other scientists predict even greater amounts!

3 – A - the natural amount of green house gases in the Earth's atmosphere makes its surface the right temperature for people, other animals and plants to live. Right now the average temperature of Earth is 15 degrees Celsius. If there was no greenhouse effect the average temperature would be minus 18 degrees Celsius – too cold for most life on Earth.

4 – C – Scientists predict that Climate Change will cause the level of the oceans to rise between 15 and 95 cm in the next 100 years because warmer temperatures will cause ice and glaciers to melt and because as water gets warmer, it takes up more space.

5 – C – Today there is 25% more CO² in the atmosphere than in 1860. CO² is the greenhouse gas that people make the most of. Two of the biggest sources of CO² are burning fossil fuels and cutting down and burning trees. The more CO², in the air, the more the temperature will rise.

6 – C - Forests are called “Carbon Sinks” because they take CO² from the air and store it. When trees are cut down and burned the CO² that is stored in them is released back into the air. Scientists believe that every year 2 to 5 billion tonnes of CO² are released into the air from forests being cut down and burned.

Activity One: Invite wildlife into the school grounds

Students can invite wildlife into the school grounds using a woodpile to attract insects or some broken concrete to bring in lizards. The action plan in this activity will work for bigger and bolder ideas.

Learning outcomes

Students will:

- draw plans that show they know what native wildlife including invertebrates, birds and lizards need
- recognise by planning a small change, that even very small actions can benefit our native wildlife.

1. Find a place in the school grounds

- Ask students to find possible places in the school grounds that could be a better backyard for the school. It doesn't need to be very big. It could just be behind that old incinerator!
- Decide: Which backyard idea is best? Choose from those found!

2. What do we need to investigate?

a) List the things you will need to find out such as:

- Who is interested? List people who might be interested if you change this little space.
- What do they think? Work out a way to find out!
- Are we allowed? Who do we need to get permission from?

b) Decide: Do we want to change the whole area or start with a little part of it, and then list:

- What needs to go?
- What needs to stay?
- What do birds and mini beasts – such as spiders, moths, beetles, earth worms and stick insects – need? (Eg, food and places to hide!)
- What can we put there that will attract native wildlife?
- Are there any threats to native wildlife like rats and mice?
- How can we get rid of the threats?
- What could the final place look like?

c) Start your plan by listing:

- Where could we start?
- Where could we get the things we need? Who could help us?
- How could we draw up plans?
- How can we show people our ideas?
- Would this cost any money? How can we pay for the things we need?

ACTIVITY TWO: TOPIC: GLOBAL CITIZENSHIP ACTIVITY: GETTING GLOCAL

AGE RANGE: 8-15

AIM: STUDENTS WILL CREATE A PICTORIAL REPRESENTATION OF THE WAYS THEY AFFECT THE WORLD AND THE WAYS THE WORLD AFFECTS THEM.

SET UP: LARGE SHEETS OF PAPER AND PENS.

TEACHING TIP 1: GLOCAL: A WORD MEANING THAT ALL LOCAL THINGS HAVE NOW GOT GLOBAL SIDES TO THEM, AND ALL GLOBAL ONES HAVE LOCAL SIDES TO THEM.

TEACHING TIP 2: THIS ACTIVITY CAN EITHER BE DONE IN SMALL GROUPS OR INDIVIDUALLY.

EXPLANATION EACH GROUP OR PERSON NEEDS A PIECE OF PAPER BIG ENOUGH TO DRAW THE OUTLINE OF A PERSON ON. HELP EACH OTHER TO DRAW AROUND A PERSON, OR EACH PERSON, TO CREATE AN OUTLINE – THIS COULD JUST BE THE TORSO.

INSIDE THE OUTLINE WRITE THE WAYS THE GROUP OR PERSON AFFECTS THE WORLD, AND ON THE OUTSIDE OF THE OUTLINE WRITE IN THE WAYS THE WORLD AFFECTS THE PERSON OR GROUP.

DEBRIEF WHAT DID YOU FIND OUT?

Activity three -A Climate Change Quiz:

1 – Which of the following subjects is NOT one that helps scientists learn about climate in the past? **A** -Tree rings **B** –Sheep wool **C** – Ice

2 – Scientists predict that in the next 100 years climate change will cause water levels in oceans to:

A – Decrease at 100 cm **B** – stay the same **C** – Increase by at least 15 cm.

3 – If it wasn't for the natural green house effect, how much colder would the surface of earth be? **A** – 33 degrees Celsius, **B** – 80 degrees Celsius **C** – It wouldn't be colder. It would be warmer.

4 – Many scientists predict that climate change will cause the water level to go up. But why? Which of the following is NOT a reason ocean levels will rise with climate change?

A – When water gets warm it takes up more space.

B – When sea ice and glaciers melt they add water to the ocean,

C – Rain drops will be bigger so more water will fall into the ocean.

5 – Compared to 1860, how much carbon dioxide (CO²) is in the air today? **A** – 80% more, **B** – There is less CO² in the air today than in 1860, **C** – 25% more

6 – How many tones of carbon dioxide (CO²) are put into the air each year from deforestation (cutting down trees)?

A - None. Cutting down trees does not put CO² into the air.

B – between 2 to 500 tonnes. **C** – between 2 to 5 Billion tonnes.

**EcoBuzz is made with the help of many contributors –
thank you to you all!**