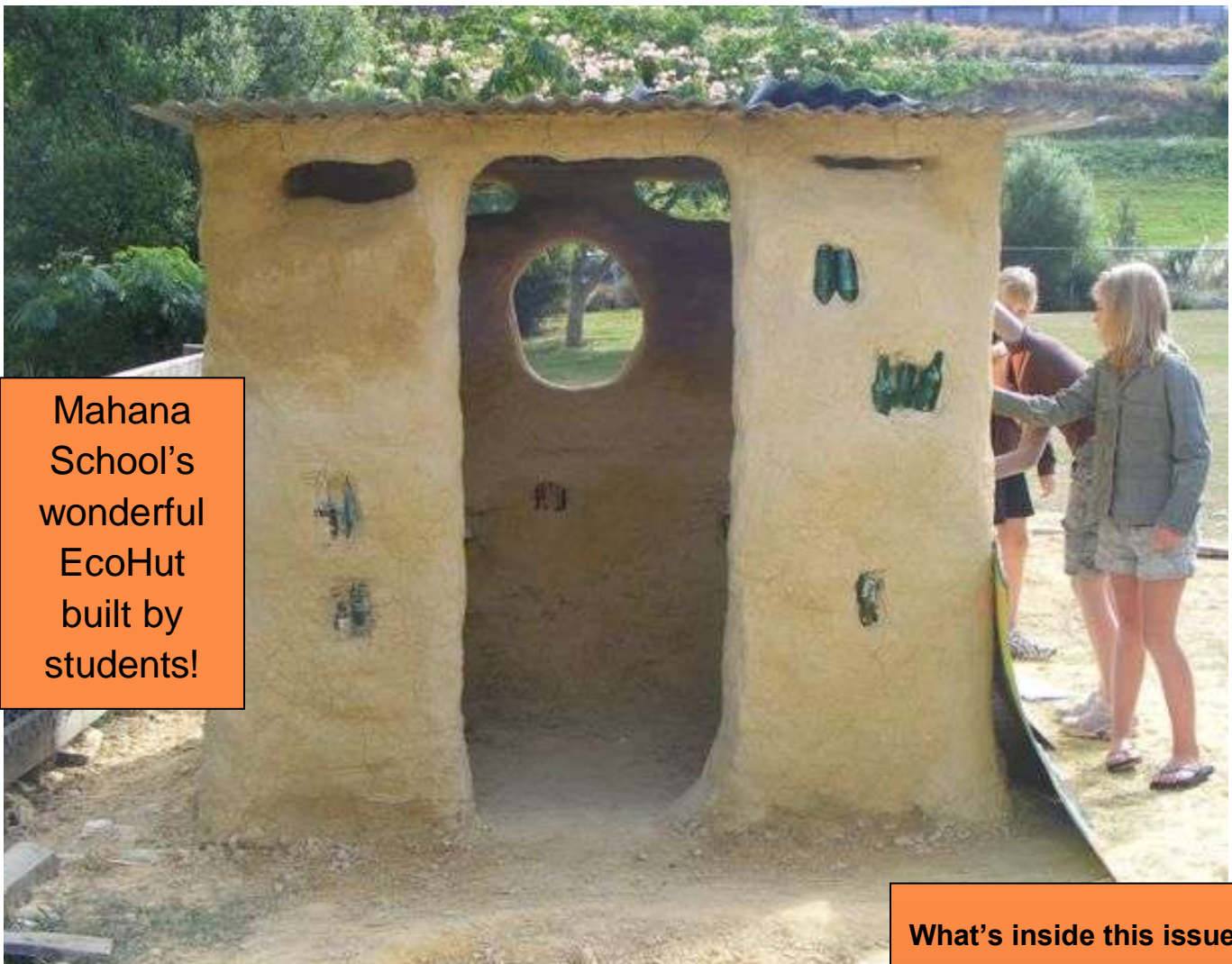


# EcoBuzz

Edition # 38

Term 2, April 2010



Mahana School's wonderful EcoHut built by students!

## What's inside this issue?

- More EcoHuts
- Enviroschools update
- The first Zero Waste event at a School
- Seaweek round-up
- Heads up for Ecofest



EcoBuzz is created with the help of many contributors – thank you to you all!  
Feel free to share this with others too - please



Welcome to the second edition of EcoBuzz for 2010. We hope you are inspired by what others are up to – the EcoHuts are fabulous and our enviroschools are going from strength to strength. Many schools are reducing the waste leaving the grounds in positive and rewarding ways, one of our local teachers is discovering lots about Maori sustainable fishing techniques and Seaweek provided many children with the opportunity to learn about and care for a local marine area. At Clifton Terrace School the “Tea by the Sea” zero waste fundraising event raised \$10, 000 and no waste – fantastic! For Ecofest this year there are lots of opportunities to become involved so have a read and we hope enjoy.

Karen, Jo, Rob and Claire.

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### ARE YOU A TOTSEE?

TOTSEE stands for Top Of The South Environmental Educators. The TOTSEE group meets once a term to share news of upcoming events and programmes relevant to environmental education in schools. It offers the regions’ environmental educators a forum to network, coordinate their programmes, and discuss issues relating to school environmental education and/or education for sustainability. Many of the people who attend are delivering programmes into schools, and we would love to have a stronger voice from the people who work inside the schools at these meetings. So all teachers with an interest in environmental education are warmly invited!

The dates and times for this year are as follows:

Wednesday 19th May	3:30-5:00	Tasman District Council
Wednesday 18th August	3:30-5:00	Nelson City Council
Wednesday 10th Nov	3:30-5:00	Tasman District Council

The meeting is a 30 minute round table with each speaker limited to 2 minutes, then 30 minutes for afternoon tea and networking, followed by a short presentation or discussion on a topical issue or programme.

Please contact Jo Martin (NCC) [jo.martin@ncc.govt.nz](mailto:jo.martin@ncc.govt.nz) or Rob Francis (TDC) [rob.francis@tasman.govt.nz](mailto:rob.francis@tasman.govt.nz) if you would like to be added to the TOTSEE invitation and mailing list, or if you would like more information.

## **2010 United Nations Tunza International Children’s Conference on the Environment, Japan**

For the last eight years Nelson/Tasman has been well represented at United Nations Environment Programme (UNEP) Tunza International Children’s Environmental Conferences. The next conference is in Aichi, Japan in October.

The conferences were founded on the idea that children need to be active participants in decisions that affect the future of the planet. The delegates need to be between 10-14 year olds in October and must be interested in environmental issues and actively involved in a conservation project. Funding has been raised to attend past conferences both locally and nationally.

To see a summary of past conferences: [unep.org/children&youth/events](http://unep.org/children&youth/events)

If you would like to receive email updates: [deanschneider@xtra.co.nz](mailto:deanschneider@xtra.co.nz)



### **HOROIRANGI MARINE RESERVE TRIP FOR SEAWEEK 2010**

On Friday 12 March, two students from each of Nelson's 13 primary schools set sail for Horoirangi Marine Reserve on the catamaran Jamarah. On board was Sean Handley - a NIWA scientist with NIWA's ROV (an underwater remote control video camera). The plan was to answer the students' questions about sustainable fishing, and to compare the marine life outside and inside the marine reserve using the ROV.

Before they set sail the students learnt about current sustainable fishing practices such as catch size and quota management from the Ministry of Fisheries. Once on board they learnt about Māori sustainable fishing practices. Background information about marine reserves was provided by Rudy Tetteroo from DOC, and the video footage from the ROV spoke for itself. All aboard were very impressed with the difference in the amount and variety of marine life inside the reserve compared with outside it!

At the end of the day, 26 very tired students sailed back into Nelson with heads stuffed full of ideas and experiences. Holly and Josiah from Hampden St School wrote: "It was a fantastic trip as we learnt lots about the sea life in the Horoirangi Marine Reserve. We wish everyone could experience this." If we continue to focus on sustainable fishing and supporting marine reserves - then hopefully in the future everyone can!

This trip was organised and funded by Nelson City Council and the Department of Conservation. Special thanks to Richard de Hamel (NZ Marine Studies Centre), Sarah Coup (Royal Society teaching fellow), Megan Wilson (Experiencing Marine Reserves), Sean Handley (NIWA), Phoebe Van Der Pol (Natureland), Tamara Fitzgerald (Ministry of Fisheries) and Martin Holmes (Skipper).

### **And in Golden Bay?**



In Golden Bay, five classes from Motupipi, Takaka Primary and Central Takaka Schools spent the day at Patons Rock with an enthusiastic group of experts keen to share their knowledge about – smart (sustainable) fishing, the secret life of our native eels, whale rescue scenarios, dune care and planting, and environmental games – (a day in the life of a barnacle, a little blue penguin and a crab). When asked later- "How would you rate this day in terms of usefulness to you and your class and why?" One teacher replied "Actually it's the feedback from parents - they have said some of their children are still talking about what they learnt and coming out with new facts etc. Many of ours had lots more questions too! So the day was thought provoking for them".

Student Mitchell Chandler (Yr 9 Nayland College) organised and run a Student Seaweek Photo Competition – here are the two winning entries by Iris Hunter from Nayland College with her 'Crab' photo and Gracie Kroos from Henley School for her 'Shipwreck' photo. Congratulations to Iris, Gracie and Mitchell!



## The Ecofest Funky Fashion Shows

(Fashion created from recycled items) at  
21 and 22 August 2010@ 12.30 each day  
Senior category - year 9+  
Junior category - year 5-8

Entries must be received by end of Term 2.

Entry forms and details available from  
Jo Reilly Email: [Ecofest@xtra.co.nz](mailto:Ecofest@xtra.co.nz) or 03 5433 663

**Labels - resale and designer clothing**



## Are You Up for the Challenge?!

Nelson-Tasman residents are being encouraged to “go local” for this year’s Ecofest Eco Challenge, which is a Top of the South Food Challenge. The Top of the South Food Challenge is all about eating and buying local food and supporting local growers and suppliers. For the month prior to Ecofest (Friday, 16 July 2010 to Friday, 20 August 2010), residents are being challenged to ONLY eat and drink produce that’s been grown, baked, made or produced within the Top of the South. So if you can grow it, make it, freeze it, swap it or buy it from a local grower or supplier, you’ll be on the right track. And with the abundance of fresh local fruit and vegetables in our shops and supermarkets at the moment there is no better time to learn the art of bottling, pickling and preserving to make sure your stocks remain high all winter round.

### So what can schools do?

Any or all of the following!

- 1 Take the opportunity to educate your students about what’s local and what’s not – there are some great project opportunities.
- 2 If you have a vegetable garden, encourage your students to plant more winter veggies for them to enjoy during the Challenge month.
- 3 Have a fundraising stand at Ecofest, or the local markets, selling soup made from your locally grown produce. Or sell it at school as a part of your local project.
- 4 Hold a LOCAL LUNCHBOX CHALLENGE – where students aim for lunchboxes containing only local food for 4 weeks. The challenge will run the first four weeks of Term 3 and schools who wish to take part in the local lunchbox challenge will be able to request a resource pack with suggestions around how students can engage with local food and production issues and create their own local lunchbox.

For more information, contact Jo Martin, Environmental Educator,  
on 03 545 8728 or email: [jo.martin@ncc.govt.nz](mailto:jo.martin@ncc.govt.nz)

## Remember: Buy Local - Support Local

*For further information on the Eco Challenge, contact Jo Reilly, Ecofest Event Manager*

on 03 5433 663 or email: [Ecofest@xtra.co.nz](mailto:Ecofest@xtra.co.nz)



## BACKYARD BIRD MONITORING

At the Brook Waimarama Sanctuary the bird life is coming back. As further improvements are made it is hoped this will increase bird numbers in Nelson, Stoke and Richmond. To measure this they need baseline numbers.

### How can you help?

Become a Backyard Bird Monitor. Backyard bird monitoring involves counting the birds seen in one's backyard, a local park or other area of choice over a period of half **an hour between the 14th and 22nd of each month** (except July, when we ask that you monitor for one hour to coincide with the National Bird Survey). Only the largest number **seen at one time** of each species is recorded. Monitoring can be conducted **at any time of day**, but please note the time on your monitoring form.

If you don't know a sparrow from a song thrush, now is a great time to learn.

A useful resource is <http://www.whatbird.co.nz/>.



Please contact Katherine Chamberlain at [BrookBirdData@gmail.com](mailto:BrookBirdData@gmail.com) if you are interested in becoming a Backyard Bird Monitor or would like additional information.

### A few interesting websites to check out -

**Biomimicry** - <http://www.biomimicryinstitute.org/> - Biomimicry is the science and art of emulating Nature's best biological ideas to solve human problems. Non-toxic adhesives inspired by geckos, energy efficient buildings inspired by termite mounds, and resistance-free antibiotics inspired by red seaweed are examples of biomimicry happening today.

**The Centre of Ecoliteracy** - <http://www.ecoliteracy.org/> is a very positive and insightful website.

## Hooked on looking after Fish Numbers? By Richard de Hamel

Where do you go to get food when you need it? Where do you go to get clothing? Where do you go meet friends? Easily answered questions, but what about asking the same questions of a Māori, living locally, 200 years ago?



With the help of Sarah Coup, a teacher from Parklands School, Motueka, we hope to find out! Sarah is working alongside me until July under a NZ Royal Society Teacher fellowship scheme.

The idea for Sarah's project began about 12 years ago, after I made a copy of a Māori fish hook and showed it to a Māori elder while I was working in Dunedin. He showed me how the traditional hooks worked. Ingeniously they don't catch small fish, nor do they catch large (i.e. breeding) fish. This allows the 'untouched' breeder fish to replenish fish stocks for the future. To a biologist like me, this sustainable approach to fishing was music!! Ever since then, I have wanted to understand more about the technology used by early Māori. Catching the biggest fish has become the reason many people go fishing, forgetting that the quickest way to destroy a population is to target the breeders.

Sarah has been researching and piecing together information on the original Māori occupants of the Waimea Estuary/Mapua area prior to 1827 when most of the local tribes were systematically wiped out on Te Rauparaha's orders. At that time, no European settlement had occurred – so no written accounts exist to clarify how the local Māori lived. The only evidence of their lifestyle is therefore based on scattered archaeological finds. It would seem that while most tribes traded resources, those in this area probably didn't need to. The region was warm enough to grow kumara and the estuaries and bush furnished plentiful year-round food sources. As well as this, the abundance of local argillite provided all the stone needed for tool making.

The whirlpools and eddies of French Pass and around Stephens Island appear to have put off many would be traders or invaders from places east. That meant that the (unusually) flat pa site near Appleby was probably only semi protected, because of the low invasion risk, and this might help explain why the final destruction was so quick and complete.

We are recreating a variety of Māori fishing hook examples (based largely on those found locally) to see if we can match the hook types to the fish species found in local old Māori midden sites.

If you are interested in putting a bit of local flavour into a Māori Studies Unit for your class I have a hands-on programme based at the Aquarium on Māori fishing technology and methods. The programme allows children to try their hand with some of the raw materials used by Māori and experiment with lures in the aquarium tanks. This programme costs \$4/student, all teachers and parent helpers are free on school trips.

All programmes are provided by the NZ Marine Studies Centre, University of Otago, funded by the Ministry of Education's LEOTC Service.



Kia ora koutou,

As always there are lots of wonderful things happening in our Enviroschools. We've got more and more schools joining the network and more and more students/teachers/families are becoming passionate about creating a sustainable community through their actions.

Some of us are engaged in learning which takes place on a day-to-day basis, where individuals 'soak up' sustainable habits such as turning off the lights when they leave a room, recycling paper, being aware of the beauty that surrounds us etc. Others are involved with bigger profile projects like the EcoHut Challenge (more on that later). Some classes and syndicates are using theme areas from the Enviroschools kit to help develop a deeper understanding of aspects such as healthy water and precious energy. All are making steady and significant progress in terms of being a sustainable learning environment and it is always a great inspiration to see our students taking the lead with this action too.

The Enviroschools team are here to support you with your environmental actions. Please do not hesitate to get in touch.

From Kate, Monique, Claire & Roger

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Claire Webster – [claire.webster@tasman.govt.nz](mailto:claire.webster@tasman.govt.nz) ph 525 0020



## **UPCOMING DATES FOR TERM 2**

5<sup>th</sup> May – Climate Change workshop for secondary schools

12<sup>th</sup> May – Nelson/Tasman Primary Schools cluster meeting. 3.30 – 4.30

19<sup>th</sup> May – Early Childhood cluster meeting, Golden Bay Kindergarten and Golden Kids Early Learning Centre (transport available).

19<sup>th</sup> May - Top of the South Environmental Educators (TOTSEE) meeting – TDC Richmond, 3.30-5.00 All welcome

26<sup>th</sup> May – Golden Bay cluster meeting, TDC Offices, Takaka 3.30 – 4.30

2<sup>nd</sup> June – Environmental Education & Numeracy workshop for primary schools Mapua Wharf 1.00-4.30 pm

June (date tbc) - Environmental Education & Numeracy workshop for primary schools, Golden Bay

To find out more about these events, to register and/or confirm dates and venues please contact the Regional Coordinator – Kate Cobb

## **Ecological Building**

There is a growing awareness of how the design of our built environment contributes to the quality of our surroundings and our everyday lives. Buildings are a dominant feature of the school environment and affect our physical health, emotional well-being and how and what we learn.

All buildings originate from, and are connected to, nature, and in the end, the materials and energy we use for our buildings must all return to nature in one form or another. Ecological buildings work with nature by enhancing natural cycles, conserving resources, creating habitat and minimising waste. They also work well for people, providing comfortable, healthy and practical living space. Ecological buildings reflect the place they arise from, using local materials and including the traditions of that place and the people living there.

## Ecological Building continued

Enviroschool



Many students across New Zealand have been involved with the Enviroschools hut building challenge. From our region Mahana School, Salisbury School, Nayland Primary and Ngatimoti School took part in this year long project. Some wonderful learning has taken place and the students have certainly gained a lot from taking part. For example, they have developed their skills by researching the history of their area and the school buildings; working together as part of a collaborative design process; building scale models out of re-usable cardboard from a local factory; writing letters to local companies to obtain materials; presenting their ideas to the rest of the school and/or Board of Trustees; taking part in a māori stone blessing ceremony; keeping a record of the process; building the structure itself;

reflecting on the final result and evaluating that of others (for one school this involved a Skype link up) – the list could go on and on!

We celebrated their successes at a presentation last month. Each school received an award, nominated by their peers, and recognised in the form of a certificate, plaque and a voucher for \$150 to continue enhancing their environment. We shared a lunch together afterwards, enjoying some delicious treats from the school grounds. Many thanks go to those who could join us for these celebrations, including Mayor Richard Kempthorne from TDC and Councillor Derek Shaw from NCC.

\*To find out more about how you can use ecological building as a theme within your curriculum, please ask your Enviroschools facilitator for resources and support.

### Eco-Hut Challenge Awards

**Mahana School** - "The together we succeed award" for the School that proves working together gets results. The hut was a true community effort with parents, local businesses, community groups, staff and students all pitching in to support the EcoHut project with donations of time, labour and materials. It was an inspirational effort that highlights the value of communities working together and supporting each other. "I think they made good use of local materials such as Woolaston Estate wine bottles and clay from the Ruby Bay bypass." "It was neat that there was a clay house in the same spot many years ago (in reference to a cobb hut that once existed on the same site)."



**Ngatimoti School** - "The Green Inside and Out Award" - The EcoHut that's closest to nature. Ngatimoti School had a great idea that instead of building a hut, they would grow one. Unfortunately the timing wasn't great and their living hut didn't survive the summer but the children showed great perseverance and a positive attitude and are keen to try again in winter when the climate is better suited to growing a willow hut. "When it's finished it will blend in with its surroundings." "The hut is renewable in every way." "I thought it was very creative."



**Salisbury School** - "The I could live here award" - For the most comfortable, well-built EcoHut. This solidly constructed hut has everything you'd need for a relaxing break! It has been built from donated macrocarpa timber and designed to resemble a back country hut, complete with a bed and a sink with a rain water and grey water collection system. It will be an asset for the school for many years to come and is a tribute to all those who worked on it over the last year - of which there are many. "I like the curtains and hand painted duvet, it's their own personal touch." "They have used the space wisely." "I like the lizards and how they took glass off the beach to decorate the outside area."

**Nayland Primary School** - "Best laid plans award" - For the school that excelled in planning and preparation when creating their EcoHut Nayland Primary School had a highly collaborative approach to creating their EcoHut. 160 students undertook initial research about what an ecological building might look like and created their own design. Te Whare Tikawa team then worked together to agree on their favourite features and come up with a final plan. Architects, builders, resource consent people were all consulted along the way. The end result is an original, well-built, child-friendly EcoHut and is a structure that the children of Nayland Primary School will play in and enjoy for years to come". "Great story board to record what they had done" "I like the chickens that live under the EcoHut. They are named after the Principals of the School."



**Congratulations to all the schools involved.**

## **Tea by the Sea—the first zero-waste school event in Nelson**



On March 5<sup>th</sup>, Clifton Terrace School in Nelson hosted their annual fundraiser "Tea by the Sea"; a convivial event on a beautiful, calm, summer's evening. This year's event was the biggest one so far and raised an enormous \$10,000. This event was a significant one---the very first zero-waste school event in Nelson.

Petra Fidler, a parent at the school had noticed how much waste was still created at the previous year's event, despite there being recycling bins in place and buckets for food scraps to be fed to the pig. She knew that the children at school were no longer making any rubbish: they were recycling paper and card, putting food scraps in their worm farm, pig bin and compost, and taking lunchbox wrappings home. So a zero-waste event seemed the next logical step.

Petra spoke to the Home and School committee who were organising the fundraiser and easily gained their support.

Principal Rob Wemyss thought the waste-free idea was great.

With the school on board, Petra worked out a plan. She approached Waste Education Services for advice and bought a pile of ceramic plates from the Nelson Recycle Centre. She borrowed the events recycling kit, including bins and labels, from the Nelson City Council and talked with Andy Williams, a contractor for the council's Festivals Team, who has managed the waste at several community events. Andy has worked extensively with food vendors, moving them towards biodegradable and 'Bring Your Own Container' (BYOC) options. He believes that people keep an area tidy if it looks nice. "You don't leave rubbish in your living room" is his concept.

Petra took his advice to heart and, instead of creating a "rubbish bin" area for the school fundraiser, labelled the area "RETURNS", and laid the recycling bins on a blue cloth decorated with seashells and driftwood to give the impression of a beach. This attractive area, in keeping with the "Tea by the Sea" theme, prompted a lot of positive feedback. The kids really liked it too.

The message was "Pack in, Pack Out": families were asked to bring their own cups, plates and cutlery and to take all their rubbish home. For those who forgot, ceramic plates and cups from the school kitchen were available, and these could be returned for washing. The plates are now stored at the council for use by other schools. Recycling bins were provided for glass and cans. About 75% of the people brought their own dishes, which was a huge success for a first time. Everyone seemed okay with the idea of the extra effort for a good cause. "It's no hassle at all to bring your own plates and cups", said one family as they tucked into their delicious meal al fresco. Some people said they had initially doubted the whole idea but had to admit that it was definitely worthwhile and very well organised.



## Tea by the Sea continued

The returns area was well used and kept tidy during the whole event, although it definitely paid to have someone keeping a bit of an eye on it! Interestingly, the kids automatically separated their waste without a second thought, some really enjoying squashing their cans, while many of the adults approached hesitantly and took a while to find the correct bin. There were the odd few rebels who chucked a handful of rubbish into the general direction of the bins, but this only occurred a couple of times, and Petra just quickly tidied it up.

The only problem was caused by the milkshake machine, which could only take plastic-lined paper cups. These were collected for re-use as seedling pots in the school's food gardens, along with the biodegradable plastic cups provided for wine, and the wooden forks, which would serve as seedling labels. However, by Monday morning the milkshake cups, which had been nicely stacked for re-use, had disappeared. Petra later found them in the school skip and has to admit that by that stage they were disgusting, smelling of rotten milk and all soggy. Even she could not get motivated to get them out. So this is something to look at next time if the school event is to be 100% waste-free.

Another interesting aspect was that after the event the grounds were actually tidy! People did take their rubbish home and didn't just leave it where it was. In total, only half a rubbish bag was collected for the landfill. Not bad for an event of this size!

Petra says, "It went really well—we'll definitely do it again next time!"



## How to make your school event zero-waste –

### **Before the day:**

- 1- At the initial planning stage, present the zero-waste idea to your school's principal, caretaker, senior management, and Parent/Teacher Association and, most importantly, the students. Get everyone to commit to the idea.
- 2- Find at least one dedicated parent and a couple of keen and reliable students to manage the waste. Make sure someone is always at the "Returns" area during the event and that you have enough people to tidy up and wash plates after the event.
- 3- Get the zero-waste concept into the initial planning stage of the event.
- 4- Publicise the event as "waste free" or "zero waste" (posters, adverts, newsletter) and ask everyone to bring their own plates, cups and cutlery, etc. Stress the "Pack In, Pack Out" message and let everyone know to take all their rubbish home.
- 5- Contact Karen Lee at (546 0339) for general advice on zero-waste events, including health and safety (For example, it's okay for customers to wash their own plates, but if the food provider is going to wash plates to re-use on their stand at their event, health & safety rules require that they be sanitised—very hard to do at a gala!).
- 6- Contact your council to arrange loan of event recycle bins:
  - Tasman: Tim Hodgson at Smart Environmental (543 9007).
  - Nelson: Karen Lee at Nelson City Council (546 0339).
- 7- Arrange for all food stalls to accept people bringing their own containers. (\*A stock of re-used ceramic cups/plates may be needed in case some people forget to BYO. Wooden cutlery and paper or potato starch or biodegradable plastic plates/cups may also be required.)



- 8 - Design your "RETURNS" area to be as attractive or interesting as possible; you might like to choose a theme that suits the event, or use Andy Williams' idea of creating a space where you can engage people in talking about rubbish.
- 9 - Decide which recycle signs to use on the bins (glass and cans may be easier to manage than plastic and paper).
- 10 - Cover all your rubbish bins; the students could draw designs on the paper. Make sure ALL bins are covered. If even one is left uncovered it will turn into a mini Mount Everest of rubbish – open bins give tacit permission to leave your waste behind.
- 11 - If your school has no composting system, consider asking parents with chickens/pigs if they would accept any food scraps collected.
- 12 - The day before, talk to the students to REMIND their families and send a reminder slip home to BYOC and "Pack in Pack Out".

**On the day** --Set up the "RETURNS" area, making it as attractive as possible.

1. Make sure you make the zero-waste message clear—use prominent, clear signs.
2. If the local radio or publicity people are at the event, ask them to keep reminding people about it being waste-free.
3. Have someone rostered on during the event to man the area, keep the area tidy (if necessary) and **thank people** for putting their "returns" in the right place.
4. Have someone to wash the plates at the end of the event.
5. Have someone to tidy up the grounds at the end (hopefully this will be a very small job!).

**After the event** Meet with the organising team to evaluate how it went and what could be done better next time.

- 1- Congratulate the whole school at assembly.
- 2- Publicise your success and celebrate!

### **Where to get things from: Recycling bins**

Nelson City Council (Karen Lee 546 0339) has a recycling kit for loan with 5 recycling bins and a bag full of treasures including signs to put on covered rubbish bins to explain why people can't use them, signs for the bins, reflective jackets, etc. Contact her also for general advice on health and safety requirements.

Tasman District Council also has an events recycling kit available with bins, labels and a "how to" manual (contact Tim Hodgson Smart Environmental 543 9007).

To help you decide which biodegradable products to buy in for events, check out the NCC website:  
<http://www.nelsoncitycouncil.co.nz/assets/Services/Downloads/recyclable-utensils-flier.pdf> .

**Re-used plates and cups** may be obtained from:

- your school kitchen
- Nelson City Council (has 150 ceramic plates available for free loan)
- your local op shop, recycle centre (Nelson Recycle Centre 548 5603; Revive Reuse Shop Richmond 544 4419; Ceegee's Recycling Depot Mariri (Motueka) 526 7000; Resource Recovery Centre Takaka 525 8857) or school community

**Potato starch cups** or **biodegradable plastic cups** can be composted or used as seedling pots and **wooden forks** can be later used as markers for seedlings in the school garden. The **Nelson Foodies** website <http://www.derby.co.nz/nelson-foodies-database.html> lists local suppliers of biodegradable food containers and utensils, including Nelson Food Distributors (544 4435) and Potatopak (Blenheim 547 1705 - order via phone for delivery the following day).

**GOOD LUCK!**

**For more information, contact:**  
**Sarah Langi**  
**Waste Education Services**  
**Nelson Environment Centre**  
**545 9176 Ext 1**  
**Email: sarhlangi@nec.org.nz**



## The dilemma Teachers face – to place very heavy burdens on small innocent shoulders (in the name of ‘the truth’) or to keep our heads buried in the sand and pretend “it’s all okay”?

### Is there another choice?

(A personal view)

Climate change, the end of cheap oil & petrol, the loss of biodiversity, deforestation, excessive waste, over consumption, mass species extinction, depletion of natural resources, environmentally linked illnesses like asthma, obesity & diabetes, toxic waste and ozone depletion. The list goes on – should the environmentally aware student know about all this? Can we expect children to fix this?

Well, in my view – Yes and No. **It’s all in the “HOW” and the scale.**

To have a vision and purpose in your teaching means you can be conscious of what, why and how you teach. Confronting children with global problems and getting them to think about how to solve them is a hard ask – as adults we are struggling with solutions – most governments around the world put it all in the “too hard” basket and stick with short term commercial gains – a ‘bugger the planet and the future’ mentality. So let’s educate our young without giving them a sense of powerlessness and doom for their futures!

I believe the real and most useful gift we can give our children is an appreciation of their natural environment. If children have repeated and positive interactions with their local environment they can grow up with an emotional connection to ‘their place’ – and nature. They will experience nature (ecosystems) working and learn how they can interact with it in non-destructive ways. They get to experience where natural ecosystems and human interact in a functional ways. Further to this they can learn the skills required to improve these environments (school grounds/ local stream/ local beach/ park). By learning and caring about natural places and making a positive difference these young folk can grow up emotionally connected to nature. They understand humans are part of ecosystems not disconnected/separate from them.



They understand and have experienced the impact they can have on ecosystems (both positive and negative) and so are far better enabled to make a difference as they reach their teen and adult years. If allowed and encouraged to care for natural areas they will hopefully develop the range of skills to problem solve and create change. With this skill set and connection to the natural world they will be far better able to deal with the big problems we all face.

I remember as a child learning about acid rain – my lasting impression was one of dread – “all the big factories in Europe were wrecking the planet and what could I do!?” It is my love of the outdoors that has brought me back to a place of wanting to help and care for the natural world (of which I am a part).

So now in adulthood I realize how important ecology is. An ecosystem is a sustainable community of plants, animals, and microorganisms. In over four billion years of evolution, ecosystems have developed the most intricate and subtle ways of organizing themselves so as to maximize sustainability.

The basic principles of ecology are —

- interdependence,
- recycling,
- partnership,
- flexibility,
- diversity,
- and as a consequence - sustainability.

The survival of humanity may depend on our ability to understand these principles of ecology and live accordingly. A curriculum that enables young people to discover their own homes as described here is not an add-on to the conventional curriculum. It is rather the core of a transformed education that enables young minds to perceive the extraordinary in what we mostly mistake for the ordinary. So do your students, and the planet, a huge favour and make the outdoors your classroom – please?

By Claire Webster – Environmental Educator



**Some useful quotes for the staffroom wall – for educators**

**It is not necessary to change.  
Survival is not mandatory.**

– W. Edwards Deming

**Who dares to teach must never  
cease to learn.** -John Cotton Dana

**Education is the ability to meet  
life's situations.** - Dr. John G. Hibben

**Our progress as a nation can be no  
swifter than our progress in  
education.** - John F Kennedy

**“We the people are going to have to put  
our thoughts together, to save our  
planet here. We’ve only got one water,  
one air, one Mother Earth.”** - Corbin Harney

**“I would feel more optimistic about a  
bright future for man if he spent less time  
proving that he can outwit Nature and  
more time tasting her sweetness and  
respecting her seniority.”** – Elwyn Brooks

**“What can educators do to foster real  
intelligence? We can attempt to teach  
the things that one might imagine the  
earth would teach us: humility,  
holiness, connectedness, courtesy,  
beauty, celebration, giving,  
restoration, obligation and wildness.”**  
- David W Orr

**The mediocre teacher tells. The good  
teacher explains. The superior  
teacher demonstrates. The great  
teacher inspires.** -William A. Ward 1921

**“We abuse land because we  
regard it as a commodity  
belonging to us. When we see  
land as a community to which  
we belong, we may begin to use  
it with love and respect.”**

– Aldo Leopold

The future is knocking at our door right  
now. Make no mistake, the next  
generation will ask one of two questions.  
Either they will ask, ‘Whatever were you  
thinking; why didn’t you act?’ or they will  
ask instead, ‘How did you find the moral  
courage to rise and successfully resolve a  
crisis that so many said was impossible to  
solve?’ – Al Gore

**"Sustainable management will only  
occur when we realise that the land  
is not owned by the people, but that  
the people are owned by the land."**

- Bishop Vercoe

**“If, as the elders have told us, we are our  
grandparents’ dream, then we must begin  
today dreaming of our grandchildren.”**

– Walter Bresette

**"The problems that exist in the  
world today cannot be solved  
by the level of thinking that  
created them."** - Albert Einstein

**“We are seeing the birth of a new  
perspective of the world, where  
ecology and economics are two  
sides of the same coin.”**

- Leif Johansson

**“The most important discovery of the past two centuries is that we are joined in one  
fragile experiment, vulnerable to bad judgment, shortsightedness, greed and malice.”**

- David W Orr

**Some inspiring quotes for the classroom wall – for students**

**“If civilization has risen from the Stone Age, it can rise again from the Wastepaper Age.” - Jacques Barzun**

**Never doubt that a small group of thoughtful committed citizens can change the world, in fact that’s the only way it’s ever been done. - Margaret Meade**

**“Do not wait for leaders. Do it alone, person to person.” - Mother Teresa**

The best way to predict the future is to invent it. - Alan Kay

**"Feel the fear and do it anyway." – Unknown**

Only a fool stops asking questions. - Unknown

**“When we try to pick out anything by itself, we find it hitched to everything else in the Universe.” - John Muir**

**There are no passengers on Spaceship Earth. We are all crew. ~Marshall McLuhan, 1964**

**We must become the change the change we want to see.**

– Mahatma Gandhi

**If you think you are too small to make a difference, try spending a night in a tent with a mosquito. – Unknown**

**“We live in the world, and the world lives in us.” - Albert Schweitzer**

**“There are two ways to get enough: one is to continue to accumulate more and more. The other is to desire less.” - G.K Chesterton**

**“One person can make a difference. I am one person and I know I make a difference everyday.” - Mardi Neumann**

**“We are the ones we have been waiting for.” - June Jordan**

Man did not weave the web of life. He is merely a strand in it. Whatever he does to the web of life, he does to himself. – Unknown

**“The land and sea, the animals, fishes and birds, the sky of heaven and the orbs, the forests, mountains and rivers, are not small themes.” - Walt Whitman**

**“The miracle is not to walk on water. The miracle is to walk on the green earth in the present moment, to appreciate the peace and beauty that are available now.” - Thich Nhat Hanh**

**Take care of the earth and she will take care of you. ~ Unknown**

## Activity one:

# What do you need? What do you want?



Learning to distinguish between things that are genuinely needed to live a healthy life and things that would be merely nice to have is an important step in understanding our relationship to consumption and sustainable living.

You can generate a thoughtful discussion about needs, wants, and values by using the Center for Ecoliteracy's "Needs and Wants" Activity.

**Key Concepts:** People can choose how they will live and work together and how they will go about meeting their basic needs. Societies have very different ways of deciding what their needs are and how to meet them. (Adapted from the American Association for the Advancement of Science Benchmarks)

**Estimated time:** 30 minutes prep time. 40–60 minutes in class.

**Purpose:** To help participants distinguish between personal needs and wants, and consider how things are used or wasted.

This activity is designed for working in pairs.

What to do

1 - Get a partner. If working with a larger group, divide into pairs.

2 - In your pair, open your envelope of cards. Divide the cards into two groups:

- things you need to live a healthy life
- things you don't necessarily need, but that might be nice to have.

Take about five minutes to complete this part of the activity.

3- As a group, discuss your "needs" and "wants." Did you notice any basic needs that you felt the cards did not represent (for example, things like "friends," "clean air," or "respect")?

4 - Again, in pairs, shuffle your cards. Now divide the cards into these groups:

- things that end up being thrown away or wasted, at least in part
- things that are not usually thrown way or wasted.

Take about five minutes to complete this part of the activity.

5 - As a group, discuss how you sorted the cards. Consider together how different people define their "needs" or "wants." Discuss how fulfilling the needs or wants of one person can create rubbish or garbage for another person. Consider ways that "rubbish" from one person might be usable by another.

### Materials

1 set "What do you need?  
What do you want?" cards for each pair of players  
1 used envelope for each set of cards

### Preparation

- Print one set of cards for each pair of people
- Cut the cards on the dotted lines and put one set of cards into each envelope.





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What do you need? What do you want?

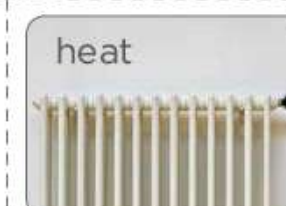


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Adapted from The Family Ecology Guide, Alameda County Office of Education, 1998.



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What do you need? What do you want?



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## Activity two: Salad Art Creations

**Requirements:** Various types of vegetables (tomatoes, onions, spring onions, peppers, cucumber, beetroot, corn, chillies, carrots, etc), knives, trays, plates, chopping boards, tooth picks, a work table for each group (with enough working space), waste baskets, hand towels or paper napkins, aprons (if possible).

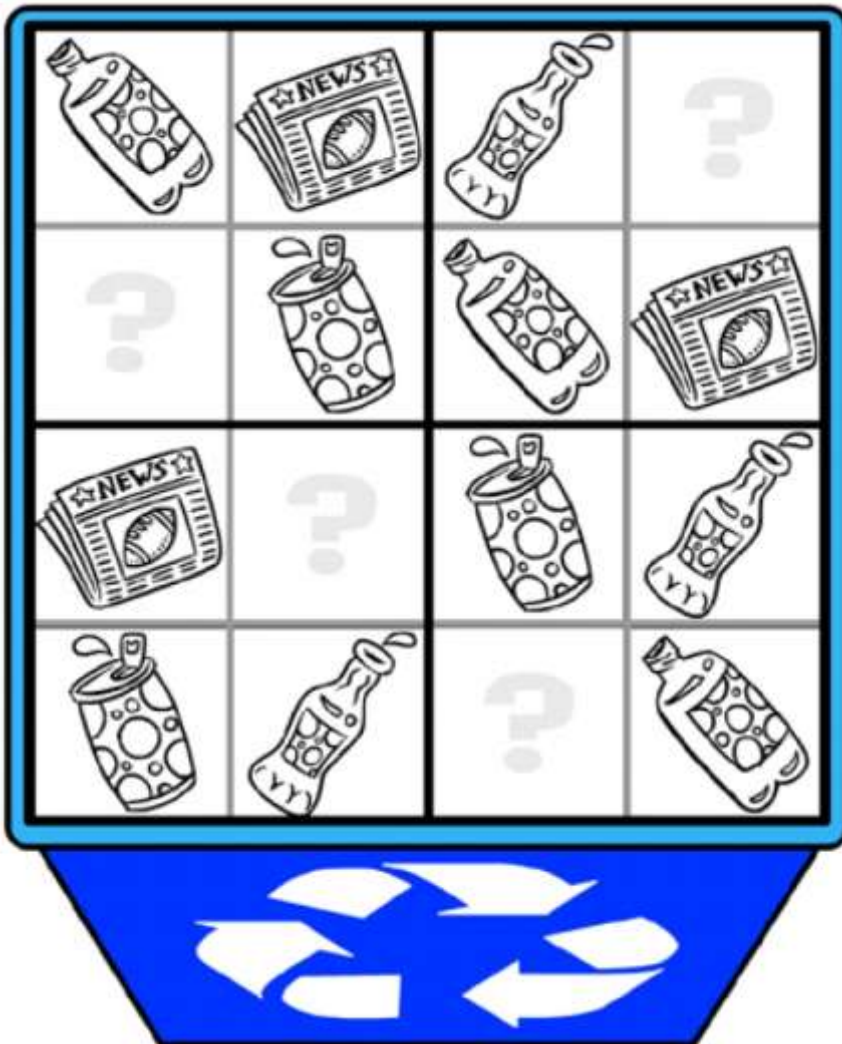
**Sorting the teams:** On chits of paper, write down names of articles belonging to a particular category, such as under utensils: knives, spoons, forks, ladles, pots, pans, etc. Under vegetables: carrots, tomatoes, cucumber, chillies, etc. Under spices: cloves, coriander seeds, cumin seeds, basil, etc and under fruits: apple, mango, banana, grapes, etc. Don't tell the players the categories. Give each child one chit. They are allowed to show their chits to each other. They have to find out on what basis they all are characterized and find their groups. You will need as many categories as you want groups and as many articles in each category as you want members in each group. You will have the teams sorted out, warmed to the topic and ready to play.



**How to Play:** Have everyone clean their hands well. Provide each team with one work table. On the work table, place an equal amount of the same assortment of vegetables, knives, spoons, trays, chopping boards, toothpicks, etc. Each team has to use it's creativity and come up with some salad art creation. The judging parameters of the final creation would be based on the creative talent, presentation skill, cleanliness and optimum utilization of the given resources and involvement by all members. Give the teams an hour for this activity.

**Learning:** The students will have to make an initial plan of action. This involves brainstorming and team consensus of the plan. Delegation of authority and responsibilities also comes into play because each person will have to take up a part of the salad project. The participants will work individually for a common goal. This activity also focuses on creativity and optimum utilization of given resources (most of the given vegetables should be used). The less wastage, the higher the marks. Since the teams are competing with teams who have same resources, they have to aim to come up with something better than the others. After the judging each team can eat their creation.

## Activity three: Suduko Recycler.



Fill in the missing pictures so that every row, column and section contains a different item that can be recycled. Only one of each item may appear in each row across and down.



Cans



Newspapers



Plastic Bottles



Glass Bottles



## Activity Four: Paper-Mache Globe



### How to make it:

- Line your work surface with several newspapers. This is a messy project !
- Blow up the balloon and tie. If you have a more oval shaped balloon, don't blow it up all the way, try to keep it round. Place balloon, knot side down on a holder/stand.
- Tear newspapers into 2cm strips. Dip strips into the flour glue and run the strip through your fingers to squeeze off the excess. Place the wet strip of newspaper across the balloon and smooth it down onto the surface until it sticks. Continue adding strips until entire balloon is covered.
- Cover saucepan (glue) with plastic wrap; push the wrap down onto the surface of the flour mixture. Allow balloon to dry overnight.
- Reheat the flour mixture so it bubbles and then allow to cool.
- Repeat the process of covering the balloon with newspaper strips until a second layer is achieved. Allow to dry overnight. You can do a third layer, but two layers should be sufficient.
- Turn the balloon over so that the tied end is up. Holding the tied end, use a pin or another sharp object to pop the balloon. The balloon will slowly pull itself away from the sides of the newspaper, leaving the round shell in place. Remove the balloon.
- Paint the globe with white paint, so the print does not show through. Allow to dry.
- Paint the entire balloon light blue and let dry.
- Print out a world map to use as a stencil. Cut out the land masses and trace around them on.
- Paint the land masses with brown paint. Add some green paint using a dabbing method on top of the brown in random areas.
- Add clouds, using a dabbing method with white paint. This is a great way to cover up any pencil lines that may be showing from your tracings. Allow to dry completely.
- Turn the balloon over so that the hole where you removed the balloon from is on top. Paint the bottom of the globe, about 3cm around the hole with gold paint. Allow to dry.
- To create the globe stand, Glue two paper plates together (nested together).
- Cut cardboard into 10 cm squares. These will provide some weight for your globe stand.
- With paper plates right side up glue one square of cardboard to the middle of the plate. Glue another on top of that, offset. Repeat for a total of 4 or 5 squares. Let dry.
- Cut slits in one end of the toilet tube, about 2cm up and 2 cm apart. Fold those slits outward.
- Turn paper plate over so that the bottom is facing up.
- Cover the slits of the cardboard tube with glue. Press down onto the centre of the plate. Press the flaps onto the plate until the glue grabs and let dry.
- Paint the cardboard tube and the plate with gold paint and let dry.
- When dry, line the cardboard tube with glue and insert into the hole at the bottom of the globe. Turn over and adjust so that globe stands straight. Place back onto the holder (upside down) until dry. Turn over and display.

### What you'll need:

- Balloon for each student
- Heavy medium-sized bowl or large glass measuring cup
- Newspapers
- Flour glue (ratio – 1 cup flour to 5 cups water) Make this beforehand so it can cool. Mix together the flour and one cup of the water until completely combined. Bring 4 cups of water to a boil in a saucepan. Add the flour and water mixture to the boiling water. Reduce the heat to low and simmer for 2-3 minutes, stirring occasionally. Remove from heat and let cool.
- A container each to stand the balloons on
- Two paper plates per student
- Scrap cardboard
- 1 cardboard toilet paper tube per student
- Scissors
- Acrylic paint: gold, brown, green, white, light blue and paint brushes.

