Environmental Education Update

E(GBUZZ

Edition 40 Term 4 2010



What's inside -

- Action at Nayland Kindergarten, Greenwood Kindergarten, Henley School, Broadgreen School, Nelson Girls College, Nayland College and Hira School – WOW!
- New home for the Nelson Environment Centre
- "Kids Can DVD" and more!





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

Tena Koutou, Wow it's the last term already – don't they rush by! As summer arrives – it's easier to get your students outside – do take any opportunity you can to help them develop a deep and active appreciation of the real world – be it the school grounds, the school vegetable gardens or somewhere further away and grander. If you are unsure of what to do with your class out-of-doors, why not try one of the activities at the end of this EcoBuzz?

The four of us are always happy to assist you in anyway we can so please make contact. We would also like to take this opportunity to thank you all – for all your hard work this year (and the rest of this term!) – it is you at the coalface who can make the biggest difference to the knowledgebase and emotional connection future generations have with their home – our planet earth.

Nā mātou noa, nā Karen, Jo, Rob & Claire.







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Nayland Kindergarten weaving the strands of creativity and sustainability together.

Nayland Kindergarten has a number of focus strands woven within the curriculum. The key strands are bicultural, creativity and the visual arts, physical development, community development, ICT, sustainability and inquiry learning/thinking skills. These strands blend and weave in and out of each other creating a strong woven fibre upon which we sustain the learning and teaching for both children and teachers. This article illustrates how some of these strands interweave with sustainability. For instance on the paint drying rack there are a number of unnamed paintings gathered at the end of each day and even though we put these out to the recycle bin the amount of paper we use is always a concern. Through our continued focus on the arts, creativity and our commitment to sustainability another process for producing amazing pieces of artwork has developed. Screen-printing is one art process we have worked a lot with at Nayland Kindergarten as well as using underpainted canvases for painting and drawing. So with the large number of left over paintings teachers decided to bring them back to the table to be under-painted, covering the entire sheet of paper, and then to be used as the base for screen-printing.

The children then drew a picture and cut it out for their template. They placed it on the under-painted paper and placed the screen over it. The final step was applying the paint over the screen to produce the print. Children have also discovered that they can reuse their template over and over again, so producing multiple pictures of the same template but with different shadings as each under-painted paper provides a unique mirage of colour.





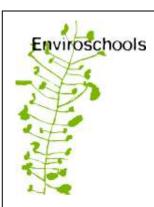


Another discovery they are learning about is the detail that they put into their drawing may not appear on their print unless they cut some of these out of the template. Some of the children have become very skilled in how to cut out eyes, mouths, legs and other such features.

The issue regarding the management of printing costs and children thinking more deeply about their creative masterpieces on the computer has highlighted again issues of sustainability within technology. There had been a large number of prints being made of one picture and also of pictures made up of stamps and premade shapes of colour and not a lot of thinking behind the process. Teachers brought the issues of concern to mat time where the children helped to define the problem and make some rules around the printing of their artwork. The outcome has seen children taking responsibility for how their thinking and actions impact on the planet. Children and teachers decided some of the prints could be used for screen-printing just as the under-painted paper had been. The bright colours of the computer-printed paper has made some stunning screen-prints. One child thought hard about the waste of paper and decided to use some of it in her profile book for her parents to make comments on instead on using new sheets of paper. Children now self-manage the printing process deciding that they can print three pictures maximum and they need to be able to articulate their thinking behind their picture to warrant the printing of it.

It is important that the journey for a more sustainable world is woven throughout all we do and not an added extra. At Nayland Kindergarten it is exciting to see this in action and the depth of thinking and responsibility, which is taken by the children and the teachers in this shared journey of learning.

By Margie Meleisea (Nayland Kindergarten)



Kia ora koutou,

As always it has been a busy term for the Enviroschools team and we have really enjoyed working with you all on becoming more sustainable learning environments. There's still a whole term left of the school year so do book us in if you would like to work with us. Term 4 is a perfect time to reflect on what has happened so far and make plans for the future. We have lots of tools and activities to help support you and your students with this process, so please just ask!

One of the highlights of this term was the curriculum workshop in Golden Bay, focussing on literacy. It was wonderful to see so many attendees make the most of this opportunity for professional development. Thank you to all of the teachers for coming along and helping to make it such a worthwhile session. Our thanks also go to Mother Earth for the paid teacher release and yummy afternoon snacks.

We are very pleased to announce that Greenwood Kindergarten have reached the bronze marker on their Enviroschools journey. Congratulations to everyone involved! We are all looking forward to celebrating early on this term. If you feel that your school, college or ECE is ready to reflect on the stage they have reached in the journey towards sustainability, let us know so we can book you in for a session. Celebration events are also being planned for our two Green Gold schools - Salisbury & Ngatimoti.

We'd like to take this opportunity to wish you all a happy, restful holiday and we look forward to working with you in 2011. Our thanks to Nelson City Council and Tasman District Council for

making it possible to run Enviroschools in the region

From Kate, Monique, Claire & Roger x

UPCOMING DATES FOR TERM 4

- Tuesday 2 November 1.15 4.00 –
 Nelson/Tasman primary teacher PD workshop,
 Motueka Service Centre literacy; action
 competence; & planning
- Wednesday 10 November, 3.30-5.00 –
 TOTSEE meeting, Richmond Tasman District
 Council plans for 2011
- Wednesday 10 or Thursday 11 November
 Golden Bay teacher PD workshop action competence & project planning (please let us know if you have a strong preference for either the Wednesday or the Thursday)
 - Wednesday 24 November Environment Awards

Kate Cobb <u>- kate.cobb@hotmail.com</u> ph 5418293 Monique Patterson - <u>monique_patterson@xtra.co.nz</u> ph 5268130

Roger Waddell – <u>corru.gate@xtra.co.nz</u> ph 5402793 Claire Webster – <u>claire.webster@tasman.govt.nz</u> ph 525 0020



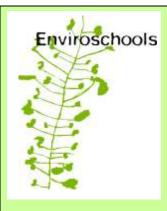






Also coming up in term 4, dates to be arranged – Secondary PD Workshop and Early Childhood cluster meeting.

*To find out more about these events, to register and/or confirm dates and venues please contact the Regional Coordinator. Paid teacher release is available for the primary workshops.



Greenwood Kindergarten gets first Enviroschools award for a Kindergarten in the Top of the South!

On 17 September Greenwood Kindergarten went for Bronze. This is the first award in the Enviroschools award process and recognises the sustainable processes, programmes and practices in place at the centre.

The Greenwood Kindergarten team worked through the Bronze reflection process with Enviroschools regional coordinator Kate and facilitator Monique, this entailed a series of activities to draw out; achievements to date, next steps and future possibilities.

Greenwood Kindergarten has embraced many sustainable practices within their centre and are always looking for ideas and ways they can improve upon, introduce and share what they are working on. Children at kindergarten age are capable of so much enthusiasm and understanding given the opportunity. The team at Greenwood have found many innovative and interactive ways to introduce big ideas to small children in a meaningful way.

Just some of the more obvious examples around the Kindergarten are a beautiful walkway through an orchard boasting healthy fruit tree specimens such as feijoas, pears and hazelnuts. Also recycling, composting, worm farms, seed raising, rainwater tank and gauge for sandpit use, lush vegetable gardens at the perfect height for the age of the children, producing so prolifically that the parents get to take some home too! Less obvious to the causal observer is the planning before the action and the ways that sustainable ideas are conveyed to the children and families of Greenwood Kindergarten such as, supporting and encouraging litterless lunches, stories, songs, activities, visitors, Māori language and tikanga practices. Time to plan a celebration, congratulations Greenwood Kindergarten!

Monique Patterson – Enviroschools facilitator in Tasman





Enviroschools in secondary schools.

Secondary Enviroschools have been buzzing with activity this year. Here is a profile of two local schools:

Nelson College for Girls has continued with their business sustainability scheme where students work with mentors from business and community groups to address and take action on an urban sustainability issue.

Groups have worked on sourcing local food for a local restaurant, reducing Richmond Mall's environmental impact, introducing carpooling through Facebook, solving food wastage, reducing lighting

costs for Telecom and Vodafone, and **leading an Envirogroup's action** for a local primary school. This learning is part of the girl's Geography class where they earn NCEA credits through an Education for Sustainability achievement standard.



Nelson Girl's College launch – 'Catch a ride Nelson' on Facebook to promote Carpooling Nelson

Photo by - Nelson Mail.

N.E.S.T celebrate their action which will benefit 761, 000 students nationwide

Nayland College's N.E.S.T Envirogroup

has had a significant affect on New Zealand schools. Their lobbying led directly to a change in the way that schools are funded for electricity. As a result, there are real incentives for schools to reduce their energy costs now.



The Envirogroup is a very passionate, popular and effective team at Nayland. N.E.S.T is currently doing baseline measurements of their school's electricity use before they start on a school-wide reduction project.





Hira School have been making the most of the Enviroschool's Measuring Change tool. A group of students worked with two Enviroschools facilitators, Kate and Monique, looking in detail at how waste was managed within the school. The day began with a tour of the classrooms and short presentations so that everyone knew what was going to happen in the day and why they didn't have their bins!

First we collected all of the rubbish bins. There were 26 altogether. We sorted the rubbish into different piles and then we weighed all the different types of rubbish, like paper, food scraps, cardboard, plastics. We found that a couple of things in the wrong bins but most of them were in the right bins. In one day we produced about 6kg of rubbish. 1.5kg of this will go to the landfill. The rest we can recycle or compost.

Written by Kiera & Hani (Room 2, Hira School)



Once they had weighed the different types of waste, the students could evaluate how the school was managing their waste. On the positive side they could report to the



school that most of the waste was going in the right bins, that their organic waste system was working really well and that overall there was not much waste per person. It was wonderful and reaffirming to see that systems put in place a couple of years ago are still going strong.

However, there's always room for improvement! SO with this in mind the action group identified all of the areas that could be improved upon and all of the possibilities/opportunities that these areas provided. After some discussion the group settled on three actions to present to the school.

A third of the paper that was going to be recycled could have been used on the other side or possibly for artwork, so everyone is going to try and be super-vigilant and see if they can use up every space on their piece of paper every time.

Reduce the number of paper towels. Stephanie has written a snazzy jingle to help people remember to shake their hands before they dry and the group set their peers the challenge of just using one paper towel per visit (unless absolutely necessary of course!)

Most people avoid using non-recyclable packaging in their lunchboxes most of the time at Hira School. The students are going to write an article for the newsletter to remind and encourage parents to support the school on this issue and see if they can reduce the number of chippie packets and muesli bar wrappers even further. Everyone agreed that these actions were manageable when they were presented at an assembly at the end of the day and we'll be popping in to support the school with another mini audit in a couple of months time, to give them another update on the progress they have made. We'll let you know how they go!

If you would like to know more about how Measuring Change could work for your school please ask your Enviroschools facilitator for some support or visit www.mwasuringchange.org.nz for more information.

The recycled school exhibition!

On Thursday 23 September Henley School ran a Recycled Exhibition in our school hall. School-wide we had been studying the idea of living sustainably and finding out what this means practically. One of the things the children discovered was that they created a lot of waste from lunchboxes and decided to take on the action of taking this waste home to reuse or recycle. We now no longer put rubbish bins out at lunchtimes. The Senior Syndicate use recycled materials to create artworks. The Middle Syndicate children had a home

The Senior Syndicate use recycled materials to create artworks. The Middle Syndicate children had a home project to create a recycled bird feeder to attract a native bird of their choice to their own back yard. The Junior Syndicate made musical instruments from recycled materials.

The hall was open for parents to enjoy the results. It was a huge success with much positive feedback. The children themselves loved viewing and sharing what other kids around the school had been making.

By Tegan Kelling

Mrs Alder gave us a project about birds. We had to build a bird feeder out of recycled materials and we had to make sure a bird came to it. My feeder was made out of a stick, a milk bottle and a long piece of string. I was hoping that a silvereye or a fantail would come to mine and it worked but only with the silvereye.

Everyone in the syndicate enjoyed the exhibition and I'm glad we helped the birds.



BY ISBELLA CHEESEMAN & ENYA SHARP

The Junior Syndicate displayed their musical instruments that they made during their Technology unit. They had drums, maracas and other instruments. They were all painted bright and colourful. The maracas were made out of light bulbs. They all looked very cool and were good instruments to play.

By Maddi Springer

On the last day everybody was trying to get their pieces of art finished. Everybody had finished their art and musical instruments and don't forget the birdfeeders. We were all proud of our work. I don't know what we are going to do when we are finished the sight seeing. Most of the parents came to have a look. All the kids had fun making all the things and they all hope to do it again! Would you like to do this?



By Charlotte Cheeseman

We are making bird feeders at Henley School and why? Well...we want more native birds at our home. My bird feeder worked out well apart from falling off in the bad weather.

Mine was very natural because it's made out of sticks from the garden that are all laid out like a platform so they can stand.

I wanted to attract tui, fantails, bellbirds and wax eyes. I figured out I got a fantail, wax eye and SPARROWS! But that's ok. Now there is always a competition over the food.







Good news for Waste Education Services (WES)

The WES team at the Nelson Environment Centre is celebrating! Thanks to Nelson City Council and Tasman District Council, our free waste education service will continue to be available to schools in 2011.

Building on the success of two local intermediate schools becoming zerowaste, we will focus on supporting schools and ECEs to:

- take the next step towards zerowaste
- focus on REDUCING WASTE, the next important step to add after your success with REUSING and RECYCLING
- embed waste education more deeply into your school culture by creating sustainable purchasing and waste minimisation policies
- get together to share ideas of best practice and celebrate successes
- show you how to process the greenwaste from your school grounds on-site

We are able to offer:

- expertise in waste reduction in schools, including facilitator visits
- presentations on the benefits of minimising waste to Principals, senior management, and BOT's
- sample policies and action plans for reducing waste
- help with measuring your school's progress in reducing waste
- information and resources (posters, teachers kit, brochures) on our website http://www.wes.org.nz/schools
- caretakers' workshops
- waste audits and presentations on the 3 Rs
- a range of workshops including the cost and health benefits of zerowaste lunches and hands-on composting/wormfarm/bokashi workshops

We are able to make up to two visits per school subject to availability.







Sarah and Mary

The WES schools team:

Sarah Langi and Mary Curnow

Nelson Environment Centre
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PO BOX 4011 Nelson South 7045

Ph: 03 545 9176

Email: sarahlangi@nec.org.nz
marycurnow@nec.org.nz

Claire Webster covers WES and Enviroschools programmes in Golden Bay as well as other environmental education work for Council.

Tasman District Council:

78 Commercial Street - Takaka

Ph: 03 525 0020 (ext. 450)

Email: claire.webster@tasman.govt.nz



EDAY

EDAY this year is on Nov 6, so add this date to your diaries and start saving up your old computer waste, printers, scanners, digital cameras, cartridges, etc. See the website www.eday.org.nz for more details.

It will be happening at Lower Moutere and Stoke (at the same sites as last year). Please note there will be no separate School eDay this year.



However, if you would like to bring items on the day (more than a car load), please ring Mary Curnow 03 545 9176 ext 3 as you will need to book your time slot. If you are unable to make that date, a longer-term solution will be available from mid 2011. Golden Bay is looking for creative solutions to be involved too – contact Claire Webster if you can help or have lots computer waste to dispose of.

Small Planet

Great news for Early Childhood Education centres (ECE's)! The Small Planet learning resource will be rolled out to more ECE's in 2011. This resource is designed as a self-managing programme which acts as a useful framework both for rewarding existing environmental activities, and for planning future projects. The resource is full of ideas and activities, and it can also be a useful stepping stone for future involvement in the Enviroschools programme.

Facilitator support is available on a first come, first served basis to support this programme for ECE's in Nelson. In addition, the Small Planet learning resource is available to all ECEs in Nelson and Tasman and can be downloaded free from the NCC website:

http://www.nelsoncitycouncil.co.nz/sustainability-in-early-childhood-education/

For more information, please contact: Sarah Langi - 03 545 9176



Exciting new beginnings for the Nelson Environment Centre/Te Putahi Taiao!

(adapted from an article by Ruth Copeland published in Going Green, Nelson Mail)

There's a real buzz around at the Nelson Environment Centre (NEC) these days, it seems we are going from strength to strength as an organisation, with new projects and national recognition for waste management work being carried out.

We've also got a new general manager, Dr Grant Jones, an incredibly inspired individual tasked with helping grow the organisation and setting it on a firm, independent financial footing. Grant is an ecologist, environmental scientist and executive business manager. "I hope to bridge the gap between the environmental sector and main stream business" Grant tells me, "the Centre is about to grow its role in supporting community groups, schools and business".

It's about to grow in more ways than one. In early October we moved into our new premises at the top of Franklyn Street. This new facility is the realisation of a dream that members of the NEC have had for a very long time. The new Environment Centre will be a place which models sustainable practices, demonstrates technologies, and rolls out education programmes in both schools and the wider community.

It was no mean feat finding a location and funds for this project, and a very interesting year was spent researching different scenarios, costing up buildings, lobbying council, writing funding applications, and facilitating our steering group. The final brainwave came suddenly, as it often does, and the new location for the Centre has exceeded our expectations.

We'll be right in front of the Braemar Eco Village, entirely appropriate, as the village is planning to be sustainable living incarnate—a good fit and a win-win for all concerned.

The building itself will contain offices for staff and a classroom setup for larger meetings and workshops. The gardens will provide further outdoor classroom environments, with everything relating to growing food and permaculture techniques installed as a living display. There will be working demonstrations of rainwater systems, solar and wind energy technology, and displays relating to home energy efficiency.

I spoke to the project manager Katy Steele about the new Centre: "We've been so lucky to have sponsorship from some local businesses. Solar City, Bio Paints and Water Alchemy have already been generous in their support. We're very focused at this moment on seeking other partnerships and sponsorships".

It's so great to be involved with an organisation like ours during this period in history. It's becoming more and more understood by most people that business as usual is just not going to cut it anymore. NEC is right at the forefront of this transition to a more sustainable way of life; everyone here feels passionate about the work they do and the message they bring.

The new centre will be open to the public, and will have permanent eco technology displays. Our grand opening won't be until March 2011, when we've solidified our business partnerships and have had time to settle in.

See you then! ©



Kids Home Garden Competition held by Waimarama Community Gardens

As Trustees of the Waimarama Community Gardens we aim to promote gardening within the Nelson area. **To encourage youngsters to join in, we are running a competition for setting up and managing their own garden at home**. This venture is supported by funds from the Nelson City Council which helps us to offer prizes to the most creative and interesting gardens.

The rules are simple,

- 1. Home Gardens to be within the Nelson / Stoke area
- 2. For children in 3 age groups under 8yrs, under 11yrs and under 15yrs (by Christmas 2010)
- 3. To grow and care for plants in a 1 metre square area shape not specified.

The entry form gives more details but we are looking for more than just a plot with a few veggies or fruit in a patch of dirt, and the judges will be looking at the <u>whole journey to make the garden and looking after it.</u>

So remember that you will need to show what you have done and thought about... and ensure that this is <u>recorded as a photo, or drawing or diary</u> (your parents can help you with this). **Look for the entry forms at your school or from the Gardens and submit them before the end of October.**

For entry forms and any queries, please contact Waimarama Community Gardens and leave a message.

Ph: 548 4575 Email: waimarama@actrix.co.nz



Nelson Youth Councillors needed



The Nelson Youth Council is seeking new Councillors for

2011. Nelson City Council funds and administers the Youth Council, which works as an advisory panel, allowing Council to work more closely with, and improve its services to young people in our City. Rachael Large, Social Wellbeing Advisor, is coordinating the Youth Council recruitment. She says that young people who are keen to keep Nelson a great place to live, and are enthusiastic to get involved should apply. Meetings are held every month from February to October. A Youth Councillor role can cover everything from advocacy and planning, to events and awards. For example, this year's Nelson Youth Council was involved with:

- Judging and presenting at the Youth Volunteer Awards
- Presenting an award at Rockquest
- Organising a tree planting event at Tahunanui for Youth Week
- Attending Council meetings, sitting alongside Nelson City Councillors
- Presenting a submission to the Nelson City Council Annual Plan and then speaking to it
- Presenting a submission to the Rutherford and Trafalgar Park reserve management plan
- Supporting Cancer Society on Daffodil Day

Youth Councillors can be between 14-25 years old. Please have youth complete an application form or contact Rachael for more information. Applications close on Friday 5 November and can be accessed online at http://www.nelsoncitycouncil.co.nz/youth-council-home/ or picked up from Nelson City Council offices or high schools.

Contact Rachael on 545 8746 or rachael.large@ncc.govt.nz for more information.

Some websites you might find useful:

http://www.gardengrow.co.nz/ http://www.seek.state.mn.us/classrm_e.cfm

http://www.wilderdom.com/games/ http://www.eerst.co.nz/

http://www.earthgauge.net/ http://data.gns.cri.nz/geoatlas/index.jsp

http://www.codered.org.nz/ Check them all out and see what there is to interest you or your students.

Kids Can! is an environmental empowerment music video, made in Nelson, for young people in New Zealand and around the world. The DVD's message is to care for the planet, and while some say its problems are too complicated, kids look at things a different way and can start today. In 2008 The United Nations started using it in their *UNite to Combat Climate Change* international campaign. To see their edited version:

www.unep.org/multimedia/TV&Videos

Now, thanks to Sealord's much appreciated support all primary and intermediate schools in New Zealand have just received a free copy.

We hope that *Kids Can!* and the environmental statements by the six delegates to the 2005 United Nations World Summit on the Environment in Japan will help inspire young people to get involved with conservation and environmental activities.

I've enclosed suggestions for teachers to do your own production of *Kids Can!* Please email me your version or any other environmental videos and projects that your class has produced. Also email me if you would like information about upcoming United Nations Tunza International Children's Conferences on the Environment. To read about past conferences go to www.unep.org/tunza/children/.

Wade Doak, a New Zealand underwater photographer and author, was asked if he ever got depressed about the magnitude of global environmental problems. He replied that he is basically an optimist, for when he looks around at nature it is always growing and evolving. New life is always optimistic.

I feel strongly that we must also listen and encourage our children and students for they have a freshness, enthusiasm and optimism that many of us have forgotten and lost, as we go about our daily routines. And all too soon – for better or worse – the kids will inherit the earth!

Dean Schneider - Nelson

Gaia Environmental Education deanschneider@xtra.co.nz

Big Beach Clean-up

A big community spring clean of Tasman Bay beaches and other coastal areas between Marahau and Cable Bay is planned in time for summer.

When: Saturday, 20 November 2010 Time: 11.00 am to 3.00 pm

Where: Marahau to Cable Bay (approximately 50 beaches)

Get involved

Nelson and Tasman Bay groups and organisations are being invited to register now to take part in this Big Beach Clean-up and help care for our beaches.

Please note:

All the beaches have now been adopted.

If you are still keen to help out, we can assign rivers, streams or creeks that need to be cleaned up – please register on the DOC website (www.doc.govt.nz) and you will be contacted by the project co-ordinator.



Department of Conservation



Four Hector's dolphins caught in a recreational set net

The Bank of Real Solutions http://realsolutions.org.nz/ is all about the Kiwi can-do attitude, "Out-thinking the problems because we can". It aims to capture the excitement and inspiration of working by creative determination to overcome that which challenges us.

Come visit the "The Bank of Real Solution" today to make a deposit or withdrawal from the abundance of community wealth we can and are co-creating. This is where you can find successful working models being used to overcome social and environmental challenges in New Zealand. You are invited to upload your community success story and go in the draw for a 1 in 50 chance to WIN \$1000 for your project or another of your choice. The focus is that which makes us healthier, more sustainable and better connected - in our; households, neighbourhoods, regions and as a nation.

The new news on the WAIMEA ESTUARY



It is the South Island's largest enclosed estuary – 3455ha with a 65km internal coastline from Tahunanui to Mapua. There is recorded human activity dating back 500 years. It is now surrounded by a population of 55,000. The estuary is fed by 22 rivers and streams, most significantly the Waimea River.

It is of international importance for migratory birds including bar-tailed godwits, and national significance for various endangered or threatened birds. Yet is has lost as much as 90 per cent of its vegetation from the inter-tidal and shoreline areas.

A new plan to protect the Waimea Estuary has been launched and it poses some big challenges for the community. For well over a decade, a small but determined group has been trying to get the authorities to pay closer attention to the estuary.

Estuary enthusiasts gathered for a ceremony on the inlet's edge near Richmond to put their names to a charter – committing themselves to doing their bit to protect it for the long term. It is all based on "collaboration" and "community"; a new model – a courageous one, perhaps – which envisages the community stepping up to accept responsibility and leadership for determining the future of the estuary.

The new strategy comes with no regulations or controls attached. But more significant, to Dr Lauder's mind, is that it "commands collaboration". It rests on nobody shirking their responsibilities, and on getting away from the attitude that somebody else is going to take the lead. Dr Glen Lauder who calls himself the "project enabler" and is charged with trying to bring together a common vision for how such a plan might work. No-one could deny that the estuary has suffered in the past. It was notoriously polluted, particularly during the 1960s and 70s, when it was used as an industrial sewage outlet. It has been heavily modified, including having busy highways built hard up against it – the Stoke bypass in the 1990s, and this year a stretch of the new Ruby Bay bypass.

Contamination from the Bell Island sewage treatment plant, and from runoff from both town and country, means the shellfish living in it is unsafe to eat. It has lost the vast majority of its vegetation and natural habitat. Others, such as runoff of contaminants poisoning the mudflats or sparking weed growth and algal blooms, were considered only moderate to low.

Nevertheless, Neil Deans says the estuary is in a remarkably healthy state. Its big tidal range sees it almost entirely drained during each tidal cycle, helping to flush out contaminants.

The fact that much of the Waimea River's catchment is forested or only lightly farmed keeps the pressure down. Mr Deans says the amount of sediment carried down the river into the estuary is low compared to most South Island estuaries.

Tasman District Council policy planner Neil Jackson says "much will depend on how widely the messages in the strategy are picked up and embraced by the wider community" – and, as Mr Jackson says, that is "a bit unpredictable".

But Dr Lauder is holding firm to the power of collaboration. "I have an expectation that this will work," he says. "We need to keep on asking people to realise that no-one is coming to rescue them."

The Tasman District councillor who has chaired the strategy process, Glenys Glover, is optimistic that the people who matter will come on board.

"I think that we will achieve a great deal more with the approach we've taken – I think the time's right," she says. "There's a real groundswell of people out there wanting to look after the estuary – they love it and they really do want to protect it for future generations."

Activity 1: DIY: Make a mini greenhouse out of an old CD case: This is a fun educational activity you can do at home to show how to recycle an otherwise wasted material, and to observe how seeds germinate and grow. In about 10 days your radish seeds will become well-developed seedlings!

Materials:

1 Plastic CD case, with at least one clear side

Radish seeds

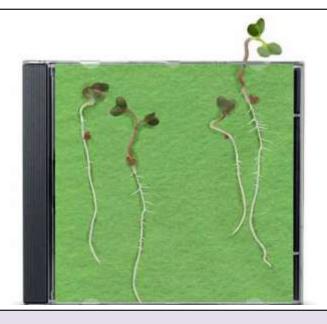
Paper towels, blotter

Paper, or absorbent fabric (we used a scrap of green craft felt in ours) *What to do:*

- 1. Soak radish seeds overnight. You'll need about four seeds for each mini greenhouse.
- 2. Cut absorbent paper or fabric to fit inside the CD case. Wet the paper or fabric thoroughly.
- 3. Place two soaked seeds on the wet paper or fabric on either side of the center hub inside the case and snap the case shut:
- 4. Every day, water your seeds by pouring a little water around the edges of the case or through the holes in the back (if your case is the kind that has holes.) Do NOT open the case to water because the seedlings might wash out or get damaged.

Be sure your seedlings get sun every day. Put your mini greenhouse on or near a windowsill. Living things — especially very young things like seedlings or baby animals — are delicate. Be careful that your seeds do not get too hot from too much direct sun; also be careful that they do not freeze by placing them near a window in a cold climate. After about 10 days, you can gently open the edges of the case a little. If you do, your seedlings may continue to grow above the case, and the roots may grow below the case. Seedlings grown this way sometimes do not transplant easily, but you can try lifting out the paper or fabric and gently covering it with soil. Keep the green parts of the seedlings above the soil line and keep the soil moist





Activity 2 - Sensory Awareness.

Have students draw themselves a table with each sense along the top – eg.

	Sight	Hearing	Smell	Taste	Touch
My favourite					
Least favourite					

Get them to fill it in – first row with their favourite things, second grow with their least favourite (except some 'poos' for smell!), third row have them go around the class room finding examples of each they like and dislike. (Safety rules may need to be set around actually tasting). Finally venture outside to gather examples

- Have each student and yourself set an achievable goal to be more sustainable -

Making a commitment to live a more environmentally friendly life lends itself to goal setting. There are plenty of things we can change which are measurable, such as water and energy use, carbon footprint, even the amount of rubbish we put in our bin. If we can measure it, then we can set a goal for changing it.

There is lots of evidence suggesting that setting goals is a powerful tool for supporting change. Goals work because they provide us with a clear, fixed direction to focus our efforts, and allow us to start to think about ways to complete tasks.

There are a number of factors which make a goal more effective. A few good rules of thumb for assisting people to set goals include the following:

- Involve them in setting the goal
- Encourage them to set a fairly challenging goal, but not so difficult that it will seem impossible
- Be specific and ensure the goal is able to be measured
- Ensure you have a plan for supporting them to meet the goal, through provision of information, resources or encouragement
- Try to create a mechanism for feedback and monitoring so that people can see how they are going.

Awake provides psychology-based services to support the development of sustainable behaviour in individuals, groups and organisations. Visit www.awake.com.au for more info.

Activity 4: make new crayons from old!

Have lots of crayon stubs that are too small to hold on to? Don't throw them out! You can use them to create big, chunky crayons – and your kids can help.

Time Required: 25 minutes

What You Need:

- Broken crayons
- An old muffin tin
- A knife

Here's How:

- 1. Gather up all of your broken crayons, and cut them into small pieces.
- 2. Preheat the oven to 150 degrees.
- 3. Fill the muffin tin with an inch-thick layer of crayon pieces.
- 4. Bake 15-20 minutes, or until the wax is melted.
- 5. Allow the tin to cool; then pop out the crayons, and they're ready for use.

Tips:

- 1. If you don't have a muffin tin to devote to crayon making, you can line your regular muffin tin with foil cups.
- 2. Candy and soap making molds can also be used to create fun, shaped crayons.
- 3. Recycled crayons make a great no-cost gift or party favour.

Activity 5: - Nature Scavenger Hunt - One way to run a nature scavenger hunt is to hand out an egg cartons and a list of 12 items to collect - e.g., natural items which are: soft, spiky, blue, strong, beautiful, old, fragile, yummy, sharp, smooth, closed, open, wet, dry, from an animal, dead, etc. (be creative).



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