

EcoBuzz

EcoBuzz Edition 506

Term 4 2014



IN THIS ISSUE:

- Looking after our precious water
- Lots of schools taking action
- Moturoa Mission 2015 info
- Conservation Week info
- And Ecofest in Nelson

'Leaving our Mauri' Nayland Kindergarten's Taonga for whanau and community

Focus on sustainability in the curriculum

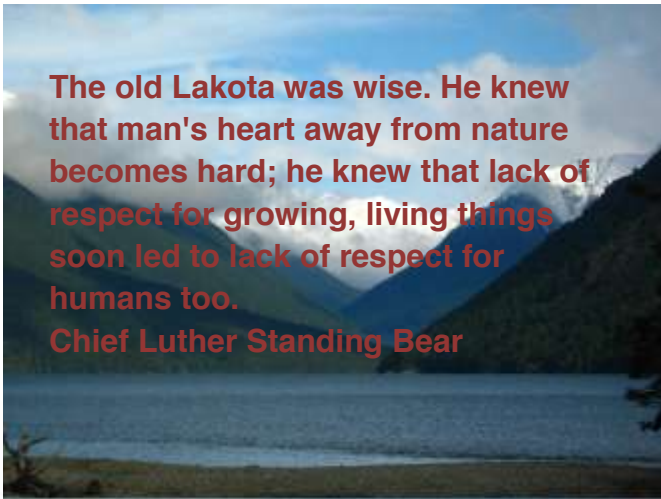
For the first time this year, the Cawthron Science and Technology Fair judging form included assessing whether secondary students had addressed the sustainability aspect of their project. The New Zealand Curriculum promotes considering the concept of sustainability as offered through the:

- **Vision** – young people to seize the opportunities offered by new knowledge and technologies that will secure a sustainable environmental future for our country and be actively involved contributing to the environmental well-being of New Zealand;
- **Principles** - students to look to the future by exploring significant future focused issues such as sustainability, citizenship, enterprise and globalisation;
- **Values** – to value ecological sustainability;
- **Key Competencies** – students participating and contributing to the sustainability of social and physical environments;
- **And reasons for studying science and technology** – to make informed decisions about the implications of science as they relate to our own lives and to consider potential impacts to the sustainability of the environment.

So it was satisfying to see this year's students displaying more projects that investigated processes and products effecting our environment and the health of living things, including us, though accumulation and over time. This is the future direction for responsible science and technology and is in line with a quote from a recent Tedx talk in New Zealand: "If it can't be reused, recycled or composted safely then no-one should be making it".

Everything in our environment is connected and interconnected. In Ecobuzz this term you can read about lots of purposeful actions taken by children/students that address the sustainability of some aspect of our shared environment.

Thanks Mary, Adie, Lindsey, and Claire



**The old Lakota was wise. He knew that man's heart away from nature becomes hard; he knew that lack of respect for growing, living things soon led to lack of respect for humans too.
Chief Luther Standing Bear**



The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction. Rachel Carson

Contents

News from the Councils	3-6
Regional EnviroSchools	6-8
Schools Taking Action	8-13
Provider Updates	14 -16
Snippets	17
Teacher Activities	18-21

The Team

Tasman District Council

Adie Leng



Education & Partnerships Officer
Ph. 543 7222
adie.leng@tasman.govt.nz

Claire Webster



Education & Partnerships Officer
Ph. 525 0020 (ext 450)
claire.webster@tasman.govt.nz

Nelson City Council

Lindsey Fish



EnviroSchools Facilitator & Nelson Regional Coordinator
0211460247
enviroschools@ncc.govt.nz

Mary Curnow



Environmental Programmes Officer
03 546 0383
mary.curnow@ncc.govt.nz



PROJECT
MAITAI
Mahitahi



Help improve the health of the Maitai / Mahitahi River

As part of Nelson City Council's Project Maitai/Mahitahi, \$40,000 of match funding has been made available for Nelson community groups and schools to take on their own project that will improve the health of the river.

Match funding is available for grants of \$300 to \$5,000 and Nelson schools, not-for-profit groups such as community groups, Māori/iwi, partnerships and individuals are encouraged to apply. Applications are welcomed throughout the year but all funding must be spent by 30 June 2015.

If you are interested in applying for a grant, you need to show how you intend to contribute to the project by matching the dollar value of funds requested from Council. This could include volunteer hours, donations of goods or professional services, and other in-kind support.

All projects need to fit the Project Maitai/Mahitahi goal: to improve the health of the Maitai/Mahitahi and its tributaries (the York and Brook Streams, and Saltwater Creek) so that the community can safely:

- swim in the Maitai/Mahitahi,
- take kai from the Maitai/Mahitahi,
- feel proud of the Maitai/Mahitahi and value it as a taonga (treasure) for our community.

The funding can be used in lots of ways including the purchase of tools, resources, products and services that support successful delivery of the activity or project. Be creative!

For more info, please visit www.nelson.govt.nz and search "Maitai Community Fund", or email Maitaiprojects@ncc.govt.nz

New freshwater website launched – Land, Air, Water Aotearoa (LAWA)

To find out more about freshwater and how you can help keep your local stream clean and healthy, a new website has been launched that tells the story of freshwater.

Land, Air, Water Aotearoa (LAWA) has been set up to help local communities find the balance between using natural resources and maintaining their quality and availability. It includes factsheets and activities that you can do plus lots of facts and figures about streams and rivers across New Zealand.

Go to www.lawa.org.nz for more information.



Trying to keep our waterways healthy



Spring is the time when we enjoy seeing ducklings, flowers and blossoms. Spring is the time for spring cleaning and children getting involved with, for example, cleaning cars. Spring is also the time when the different species of native fish, collectively known as whitebait, are 'running' up the freshwater streams from the sea. We often don't see these unless we are into whitebaiting or taking time out to look closely at creeks and streams.

Recently people have contacted Council with their observations of paint and dead fish in waterways caused by cleaning products reaching waterways through our rainwater collection systems, like roof guttering, any concreted area drains and run-off from driveways reaching the street gutters and drains.

Whether the water is from rain or the hose, outside water flows straight out to the nearest waterway and is not filtered or treated. Do not wash paint brushes or cleaning product cloths using outside taps.

It is important to realise that even 'green' and 'safe' sounding cleaning products can harm or kill fish life if allowed to reach waterways. If the product mentions 'keep out of reach of children' then it is not good in our waterways. Carefully follow the manufacturer's instructions and divert wash water, or the next rain, away from drains and out onto grassed or landscaped areas.

If you do notice anything untoward entering a waterway or see dead fish please notify your Council: Tasman 03 542 8400 or Nelson: 03 546 0200

We all want to have native fish and other life in creeks, streams and estuaries for the future, so please be vigilant about what happens with outside drains.



Tasman District Council request for Christmas decorations

Tasman District Council is keen to receive decorations from schools and early learning centres to decorate the Christmas trees in each Service Centre. If you would like to contribute student made decorations for these public spaces please contact Adie to discuss options. The customer service staff would like to display them on the tree from the end of November. UpCycling is encouraged.



Lights bulbs, buttons, old jumpers, wood, paper – what do you have in abundance?





Ecofest Nelson – Sunday 16 November, Founders Heritage Park, Nelson

Ecofest returns to Nelson on 16 November to profile the latest in innovative, sustainable green living, through a wide range of interesting exhibitions, seminars and hands-on workshops. It combines the best of a home and garden show with a green conscience and practical solutions for anyone wanting a sustainable future.

This year Ecofest Nelson is partnering with Growables gardening show at Founders Heritage Park to create a bumper day of 'green' activities, products, services and produce that provide practical solutions for those wanting to live a more sustainable lifestyle. It's also a great opportunity to find out about the work by communities to improve the health of our local environment.

If you are interested in having a stand at Ecofest, please contact Nelson Venues at info@nelsonvenues.co.nz or 03 546 6330. There is a charge for stands.

What a load of Rubbish!

Tasman District Council and Keep Golden Bay Beautiful worked with Golden Bay schools during September. It was a load of rubbish – literally – a big load! Golden Bay High School shocked themselves with a full rubbish audit (watch this space for some changes to come). Meanwhile, children from Takaka Primary and Central Takaka School worked hard to clean up other areas; Farewell Spit, local beaches, rivers and roadsides all got cleaned up. A huge thank you to every single one of you for helping the community and planet so much.



UpCycling Competition

Inventions from fifty-four students were entered in the UpCycling competition held again at Ecofest, this time in Motueka. Thanks very much to the support of MoTEC teachers who offered this opportunity to their students. Inventions rely on our inspiration for creativity to either meet a need or see the potential re-use of materials. Students' enterprising inventions received lots of comments from the public when they were on show at Ecofest. Comments were heard like: 'What a great idea'; 'I could use that'; 'Never thought of that' which shows these inventions also inspired others to think of how they could re-use items. A big hand clap of appreciation goes to Shaelyn Spinetto, who acted as marketing manager of the upcycling process and provided explanations about the inventions for any members of the public who took an interest. Section winners were from Parklands, Motueka South, St Peter Chanel, Ngatimoti, Mahana, Mapua and Lower Moutere schools.



Marley Richardson, Mapua School, with the garden he made for his mum.



MoTEC Upcycling at Ecofest - Motueka

National EnviroSchools Hui

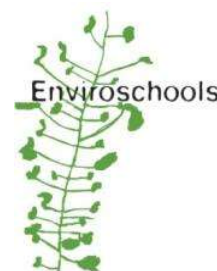
Several of our local teachers and Council (NCC and TDC) staff were lucky enough to attend the recent EnviroSchools Hui in Cambridge during the holidays.

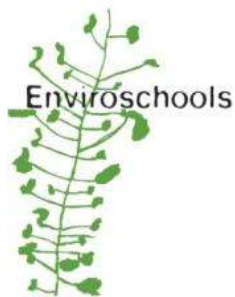
One focus that stood out was Global Issues. It was inspiring to experience, see and hear about how others handle this area without putting big problems on little shoulders.

Working with simple little actions like recycling a drink can rather than throwing it away were explored. Learning how much energy, pollution and waste were created each time a can ended up in landfill was pretty scary compared to recycling. Seeing how many Global Issues the simple action of recycling addressed was very empowering.

The Global Issues diagram is a very useful tool for seeing how any action project is helping at least one global issue such as Human-induced Climate Change, Biodiversity and Habitat Loss, Pollution and Over-exploitation of limited resources.

Your EnviroSchools Facilitator will be happy to talk further with you about how to approach global Issues in a positive way with your class or envirogroup. Empower them to make a real difference and to be proud of it.





Nayland Kindergarten's Taonga for whanau and community

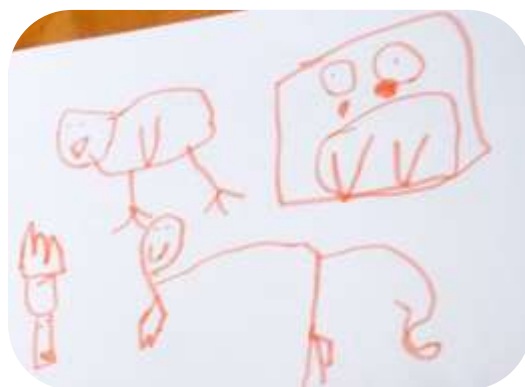
The Nayland Kindergarten kaiako had been talking to whānau and tamariki for over 3 years about how to enhance the entranceway to acknowledge past, present and future whānau. We gathered our ideas and with a grant from Enviroschools we made it happen. Stuart Kere, a carver, carved our ideas onto recycled rimu panels. We want to honour his aroha and manaakitanga!



Through this project we wanted to strengthen tamariki and whānau connections, *Building Sustainable Communities & Sustainable Communities* by teaching children to be the kaitiaki of this place.

Our goal was to enhance the environment by engaging whānau and tamariki in decision making and highlight the impact of whānau/tamariki values and beliefs on the environment now and in the future. *Protecting and enhancing environmental assets.*

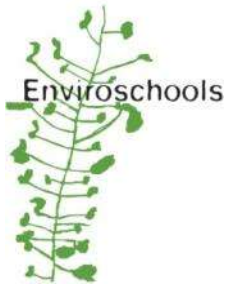
As an enviroschool our aim was to minimise our impact on the environment by using recycled materials and we were excited when Stuart was able to source some recycled rimu panels. *Minimising the negative impacts on the Environment and Learning for Sustainability.* A priority was to give tamariki an opportunity to be involved in the design and installation of the carved panels. Tamariki and whānau drew their ideas and were fully involved in the official blessing held in the kindergarten. The community was able to experience a “blessing and powhiri”, and contribute through waiata and karakia. *Empowering Tamariki/Whānau/Communities.*



We feel blessed and privileged to now have a taonga to welcome tamariki, kaiako and whānau into “Our Place”.

He Pī Ka Rere – fundamental movement skills for young children through activities based on the characteristics of Atua

When a bird is ready, it stretches out its wings, faces the wind and launches into the air: He Pi Ka Rere! He Pi Ka Rere draws on Mana Atua, Mana Whenua, Mana Tangata and other Mātauranga Māori and indigenous knowledge to bring the joy of movement to inform the growth and development of the child. Since 2012, [Toi Tangata](#) has delivered He Pi Ka Rere to 35 Kohanga Reo in the Auckland region, in partnership with [Sport Waitakere](#), and would like to explore with Enviroschools ways to expand this kaupapa to early learning environments throughout the country. See some videos of He Pi Ka Rere in action https://www.youtube.com/channel/UCsQu8GQ80dA422qmOWGeq_w



Hira school takes it into the curriculum

Following on from the Moturoa Mission event earlier in the year, Hira students were inspired to 'grow' a Totara tree. Each class at the school is named after a native tree and students decided to focus on one tree to increase their understanding of ecosystems. They researched and surveyed information about insects and wetas. They used critical skills to compare research and add to their understanding of biodiversity. They added art to the maths and literacy, making 2 and 3D birds. Can you find the Powelliphanta snail and little red bugs?



The Moturoa Mission 2015 ***Wed 11th March***
Teamwork Sustainability Learning Adventure Fun
Envirogroup teams of 4 or 5 students – from years 5 to 8



Teachers book this day for your envirogroup or a team of 5 keen students.

2 hours of navigating, teamwork, running, problem solving and strategy – all with a sustainability focus.

From 10 till 2pm on Wednesday March 11th 2015 at Rabbit Island.

More information to come ☺

Enviroschools Action at the Nelson College Girls Preparatory school

“To empower, educate and encourage young women to be leaders in taking action together for sustainability in our changing world. Students and teachers will create a community that welcomes people and nature.” – NCG Preparatory School Vision

On August 1, 96 pairs of hands were planting, weeding, digging, waterblasting and painting alongside some highly skilled and supportive adults.

During the first part of this year, all Year 7 and Year 8 students had worked through the inquiry cycle to complete actions in this, our first year as an enviroschool. We were grateful to Nelson City Council who provided a grant to get things started and Lindsey Fish who provided guidance along the way. Sustainability has been our guiding theme through all of the activities we worked on for Friday's work day. Girls spent many hours putting together proposals with goals, budgets and resources required, providing evidence of just how their project would contribute to sustainability.

Parents were on hand to assist, as the “Enviro Day”, as it became known, saw the months of planning and preparation become a reality. There was a buzz of excitement as we worked together for a whole school day. Painting murals, planting a mini orchard, recycling food waste and old household items into a worm farm were just some of the group projects, while having a sausage sizzle and wearing mufti were the icing on the cake for the girls on what turned into a fabulous day for all. As a new enviroschool, all of us here at Prep have already gained a sense of fun, learning and achievement in the launch of our first project.

Despite feeling an edge of anxiety in the decision to have every student in our school of 96 taking responsibility for a project, we are now looking back on this ambitious goal to see many gains. Not only have students shown a sense of empowerment but we have also taken positive steps together towards creating an environment here which shows respect for its culture and heritage – remembering those who've come before us. We've made a start to creating systems at our place which nurture its people, plants and creatures. The next challenge will be to sustain the enthusiasm of students so that the differences we've made will last, long after the current Year 7s and 8s leave Prep for N.C.G.

Veronica Coffey NGC Prep



Victory School Kids Edible Gardens (KEGS) group: Planting yams, the worm tower and the grand bug hotel!

In term 3, the KEGS students planted potatoes and yams in the Community Gardens. They learned that the tuber is the part that gets planted, with the side of the tuber which has the most shoots facing upwards. They also built a worm tower to attract worms into the small garden outside their classroom and a deluxe bug hotel to attract beneficial insects: bees, butterflies, ladybirds and butterflies by providing them with lots of tiny niches to live in.

Using their garden produce, the students were proud to cook silverbeet patties and cheese and onion pies for the 25 visiting EnviroSchools teachers from Marlborough.



Ngatimoti School, Tasman

Ngatimoti is a tiny rural school at the foot of Mt Arthur, Kahurangi National Park, beside the Motueka River. Ngatimoti was one of the first Enviroschools in Tasman and has now achieved its Green-Gold status. The school previously heated the school with wood burning stoves, but wanted to switch to clean, renewable energy as part of its journey towards sustainability. The school decided to invest in photovoltaic panels, paid for out of the school's own budget. They will promote the savings they make on their electricity bills in the hope of encouraging the wider school community to follow suit!

They also decided that educating their students about all forms of renewable energy was essential to equip them for the future and chose to study energy for the whole year across the whole school (years 1 – 8): studying one topic per term:

- solar energy in term 1;
- wind energy in term 2;
- insulation, energy efficiency and conservation in term 3;
- water energy in term 4.

They called in the Solar Schools Education team, who helped them plan their topics and, in return, shared their curriculum plans to assist other schools.

The Energy topic has provided a rich learning context:

The seniors, kicked off with the oil game, learning about types of renewable energy and the link between fossil fuels and global warming.

They learnt about:

- different energy sources & forms
- sustainable energy solutions
- the process of energy transformation
- how solar energy varies during the day and between seasons
- how to interpret solar electricity data and how it correlates with solar energy variation.



The younger students made solar cookers and cooked with them during their summer camp.

For their wind topic in term 2, they learnt what causes wind and how we can harness wind energy. They made Maori kites and wind turbines and compared wind turbines to windmills. They also designed and built balloon-powered vehicles.

During the winter term, students learnt about insulation and how to keep things warm; about how different colours absorb heat; and they investigated the efficiency of different types of light bulbs. They designed eco houses for a national competition, using their knowledge about insulation and energy efficiency.



In the summer term, they will be learning about water energy, measure water flow and investigate ways to harness the power of water. They will learn about how tidal energy can be harnessed and converted into electricity.

The students created an impressive mural to decorate the school entrance. They named it "Precious energy," encompassing all the elements they want to see at the school: renewable energy, healthy environment, being outside and being healthy and active.

UpCycling goes Steam Punk for the Masked Parade

Tasman School students, aided by teachers and parents really got into artistic upcycling to create outfits with helmets, mask-like space glasses, shields and apparatus including transport, all in Steam Punk style for the annual Masked Parade held in Nelson on 17th October. They became the supreme winners: congratulations and well done. The items look stunning as both wearable and sculptural art. As play gear its better than anything you could buy. See if you can identify some of the items they reused.



Students Luka Johnson, Leo Croxford, Sam Johnson, Riley Croxford, Tala Hawkes Croft and Imogen Vlugter with teacher Fred Robertson showing us some of their masked parade gear.

Glorious Gardens at Tahunanui School

It was a marvellous day on Thursday September 4th when the BNZ bank was 'Closed for Good', we had four of their volunteers spend the day helping with the creation of our new garden.

The Saturday our school had a working bee to try and get closer to finishing our senior garden. We were so lucky to have many helping hands come along to support our gardens. There was so much progress that the only thing that was left to do was the planting. This was left for the senior students who work both during

class time and lunchtime to grow our vegetables.

We were able to reuse our old frames and created a large rising sun consisting of 4 raised beds. It has been great to see these gardens come back to life after the redevelopment of our senior classrooms.

"It is so great because I missed not having a garden and I loved our garden group," said Ben Mercer, Year 6

Our team of parents, students and teachers hard at work.

By The Green Ninjas School Enviro Group.



Silver Celebration for Golden Bay Kindergarten

Fairies galore! Golden Bay Kindergarten received their Silver Enviroschool certificate, planted a silver fern in their adopted forest, found silver treasure and had heaps of fun celebrating. Congratulations to all the Tamariki and staff.



Motupipi School becomes a Bronze Enviroschool

A beautiful student led celebration was held at Motupipi School in September. The envirogroup talked to the rest of the school about some of the many wonderful projects and actions that are part of daily life at their school. This was followed tree planting and a shared picnic. Congratulations!



Central Takaka School had a Bronze celebration too!



Student led and lots of fun – this little rural school had a whole week of environmentally themed activities. These included cleaning up others rubbish as part of KNZB week, visiting Waikoropupu Springs, helping build a 'tree hut', planting a kauri tree and some good old country fun, like apple bobbing!

Congratulations as well to CTS.

Up the Pipe - SOAP Solutions and Mapua School

'Up the Pipe' refers to the information coming back up the pipe to involve the community to better understand and be able to reduce the waste that is going down our drains and ends up in our environment.

'Up the Pipe' is a project led by Cawthron Ecotoxicologist Louis Tremblay in collaboration with Crown research institutions, along with iwi, school and community groups. We know how easy it is to become detached from the results of our everyday actions. As we rinse down the sink and flush our toilets we are washing down our drains a cocktail of chemicals on a daily basis. The impact these chemicals have on our health and on our environment are not always fully understood. 'Up the Pipe' hopes to create a consciousness of the choices we have when it comes to cleaning ourselves and our houses and reduce the amount of hazardous substances being released into our environment from domestic activities.

Down the drain: What chemicals are we pouring down the drain on a daily basis from our activities such as cooking, cleaning, personal grooming, medical care and gardening? If we look on the back of the labels of all the cleaning products we find in our household we will have a very long list of chemicals. Many of the chemicals found in these products are considered to be toxic, both to the environment and to humans. Most of them are persistent, meaning they do not breakdown, and they can also accumulate, meaning the quantity builds up over time. These chemicals go down the pipes and to our waste water treatment plants/systems. Some of the chemicals actually upset the microbes used in the waste water treatment plants, affecting the way they work.

Many of these chemicals will not be broken down by the waste water treatment plants and end up in our environment, in our rivers, oceans, groundwater and soils, where they may have impacts on the environment.



Solutions:

This concept with a whole variety of classroom activities covering topics such as environmental impacts, water quality, ecotoxicology, chemistry and enterprise were introduced along with how to make informed choices. Then the challenge was set out: to make your own hand soap. Cawthron's Community Educator went in to the classrooms to explain the chemistry of soap and discuss the options available.

Students came up with a wide variety of different soaps and Mapua School students showcased their learning experiences and did some fundraising by selling their soap at Ecofest in Motueka. They sold most of their soap and made enough money for a fish and chip dinner for their school camp!



Portable Packing @ Tahunanui School



'Robbie McIntosh and Brodie Seelan are proud of our house coloured food scraps bins and new rubbish bin covers'

By The Green Ninjas Enviro Group.

This year Tahunanui School has been focusing on becoming a Zero Waste school. First we decided to cover our rubbish bins so students have to take their rubbish home.

While we were focusing on this we came up with our own portable packing guidelines to stop littering at lunchtime.

We now have a Tidy Kiwi Award. This is awarded each week to the house that uses the most food scrap buckets.⁷ It was also decided to have a Zero Hero incentive, where students earn tickets for recycling, having zero waste lunches and thinking how to reduce waste. The reward for 6 tickets is the opportunity to fill a small lunch container with baking or snacks.

“The students are keen to learn more about why we need to reduce waste and it is great to see these containers being re-used for healthy snacks.”

We have had positive feedback from parents, staff and students and will formally survey our community to receive more feedback.

Solar Schools

If you would like the Solar Schools team to work with your school on a clean energy education project contact:

Sarah Langi at the Nelson Environment Centre;

sarahlangi@nec.org.nz



Waste Education Services

Planning any waste education for next year?

Planning a summer event and want to make it zero-waste? Want to take the next step to reduce waste at your school?

Waste Education Services is a free programme funded by Nelson City Council and run by Nelson Environment Centre. The WES facilitator is available to work with all Nelson schools and ECEs.

Whether it's:

- refreshing your school recycling system,
- doing a whole-school waste audit,
- creating waste-free policies
- getting rid of lunchtime waste,
- learning how to shop smarter
- setting up compost and worm farming systems to deal with food and garden waste,
- visiting the Nelson Reuse and Recycling Centre, Transfer Station and Landfill,
- hosting a zero-waste event (we have 100 plates to lend!),
- upcycling waste items, or
- something else you have in mind...

WES CAN HELP!

Contact Sarah Langi to arrange a session this term or plan for next year.

sarahlangi@nec.org.nz Ph: 545 9176 ext 1



Galaxid Season

A time-honoured tradition of Kiwi springtime, is to get out with the whitebait net, pack the car with the day's provisions and set for a day by the river. It is as much for the enjoyable outdoor experience, as it is the appetite for the fritter.

The future of white-baiting is a different picture. Not only are the five types of native fish in decline, their options for a healthy habitat have been seriously reduced by our various modern-day land uses and intensification.

It must also be considered, as the season progresses whether it is safe to consume fish from areas that rate as very poor quality. Riparian management – aimed at restoring the edges of streams with trees, shrubs and grasses to create a “buffer zone” has proven to successfully improve freshwater quality. When we improve our methods on the land, and restore the riparian margins we will also protect and enhance the marine environment where the river flows to constantly.

Kids love the “fresh” discovery of the freshwater environment, the scientific monitoring skills and education that Waimaori programme provides to give students the chance to be environmental managers in their local rivers and streams.

The Waimaori programme is funded by NCC, TDC and DoC, and is free to schools.

All gear is provided.

Contact: Mel McColgan

WAIMAORI STREAMCARE

Office (03) 546 7842

Home (03) 545 1752

Mob. 021 146 8654



What is WHITEBAIT?

Whitebait is the name given to the young of five different species of native freshwater fish called GALAXIIDS.

Adult galaxiids live in our rivers, streams, lakes and wetlands. They lay eggs, which then hatch and the tiny larvae are swept downstream and out to sea. They live in the sea for a few months before swimming back into rivers and beginning to migrate upstream. These migrating young fish are what people catch when they go whitebaiting.

GALAXIIDS ARE SPECIAL
3 of the 5 species are found nowhere else in the world. Most species grow up to be 20-30 cm long, with beautiful glittery markings.

GALAXIIDS ARE THREATENED
4 of the 5 species are more endangered than the little spotted kiwi.

GALAXIIDS ARE COOL...

- banded kōkopu**
can leap out of the water to grab insects off overhanging tree branches
- short jawed kōkopu**
only live in native forest streams
- inanga**
used to be so common that you could scoop them out of rivers by the bucketful
- kōsro**
can climb straight up enormous waterfalls.
- giant kōkopu**
can grow up to 40 cm long.

WHITEBAIT TO ADULT

An adult kōsro

Check out some of these great resources, we can provide hard copies of the eel pamphlet.



Conservation Week is coming

There's an amazing world right on your doorstep waiting to be explored so get out and discover the world where you live this Conservation Week, 1 – 9 November.

New Zealand is full of great places and hidden treasures with a range of things to do and see. Head out with family and friends and explore the great outdoors – it's fun and easy.

Get involved

Celebrate Conservation Week by getting involved and participating in a wide range of local activities and events that are happening all around the country.

Visit the Conservation Week website to find an event near you. There is something for everyone!

Competitions

Be in to win some awesome spot prizes – here are three national Conservation Week competitions that you and your family could enter:

My World photo competition

Explore the great outdoors with family and friends, and then share your experience by posting photos with #conservationweek on your social media channels.

DOC will be looking out for your photos on Facebook, Twitter, Flickr, Pinterest and Instagram.

Creative writing kids competition

Write a short story about your local treasure and why it's special to you.

Creative art kids competition

Kids can draw a picture of their local treasure or special place. It can be anything from a school playground, the beach or even their backyard.

For more information visit the [Conservation Week website](#)

Find a Whio Competition

Join Genesis Energy and DOC on a virtual adventure to 'Find a Whio' and you could be in to win an amazing real-life whio (blue duck) experience.

To play 'Find a Whio' all you have to do is find one of hundreds of whio hidden on our online map. They'll be alongside fast flowing rivers – where whio like to hang out.

Find a Whio Competition opens 1 November 2014. [Register your interest](#) and we'll send you a reminder that your virtual adventure is ready to go!



<http://gettingthepicture.info/> this is an innovative online multimedia tool for climate education

2015-2017 Global Biomimicry Design Challenge: Food Security

Today, one in seven people does not have enough to eat. How will we feed nine billion in 2050?

Nature has the answers

http://challenge.biomimicry.org/#salesforce_w21_lead_2

High school and University student design challenge – be part of the answer!

Stories in Action

Stories in Action (SIA) is for making a difference in education and the environment. They aim to enable young people to enter the world of an ecosystem in the skin of a character, and to take action toward sustaining our planet. Stories in Action (SIA) use the Mantle of the Expert (MOTE) pedagogy developed by Dorothy Heathcote MBE (Member of the Most Excellent Order of the British Empire), used worldwide, and promoted in NZ by the Ministry of Education. MOTE is a drama based integrated learning approach that aligns with the Contribution, Communication, and Exploration strands of Te Whariki.

For more information please request information sheets check www.storiesinaction.co.nz

Chilean Needle Grass – info package for schools

Chilean needle grass is a pest plant which poses a significant threat to the sustainability of farming in New Zealand. It seeds prolifically and can displace pasture and desirable vegetation leading to reduced pasture and crop yields and economic losses. It, contaminates the wool, penetrates skin and muscle, damaging hides and pelts and causing abscesses. Chilean needle grass is widespread in Marlborough and Hawke's Bay. It has the potential to infest an estimated 15 million hectares nationwide. Its seeds can be spread by people, animals, vehicles, machinery and equipment as well as in soil, mud and contaminated feed. As such, there are many things that landowners and the general public can do to help prevent the spread of Chilean needle grass beyond its current known distribution and to protect New Zealand's agricultural sector.

For more information please request information sheets from Adie or contact Jenna:

Jenna.Taylor@ecan.govt.nz

Starship Mobile Phone appeal

The Starship Mobile Phone Appeal invites your school to collect and swap unwanted mobile phones for desirable educational goods such as new iPads, books, cameras and sports gear and by so doing raising money for Starship's National Air Ambulance Service.

In just five years this Appeal has raised over 2.3 million dollars for the Starship National Air Ambulance. Schools play a valuable role in this campaign with well over 75,000 phones collected from schools across the country.

Of course this campaign also serves as a valuable recycling initiative that will assist schools in becoming actively involved and future focused in the key principles of reducing waste: reduce, reuse and recycle. It is estimated that there are around 3.8 million old mobile phones in New Zealand households, most of which would otherwise be disposed of in landfills.

If you are interested in registering your school for our campaign you can either send us an email on

kateb@swapkit.co.nz or we would welcome an opportunity of chatting to you on 09 377 4750.

Activity one:

Introducing water as a treasure — he tāonga te wai

An early childhood focused activity – adapted from Kāpiti Coast District Council

- ◆ Prepare a box wrapped to look like a special present. Inside the box put a clear bottle of water and a letter with a message like this.

“Kia ora children,

This is a special present for you. It is very, very precious. We need to take good care of water and not waste it. Water is one of the most amazing things on this Earth. We cannot live without it. Plants and animals cannot live without it. Many countries do not have enough of it.

We are going to go on a learning journey to find out why water is so precious, why we need to take good care of it and how we can save it.”

- ◆ Discuss the word treasure with your children by identifying what they think is precious or is a treasure in their family or at the centre.
- ◆ Find out:
 - what your children know about water,
 - why they think water is precious or a treasure
 - and what your children would like to find out about water.
- ◆ Record this information as the first part of a ‘water wall’ in your centre. Complete any of the activities your children want to learn. Record what your children think and do. Add it to your centre’s water wall.

Big ideas

- ✓ Water is a precious resource
- ✓ Water has significance for Māori
- ✓ Water has significance for many cultures

Value of water to Māori

- ◆ You could invite a representative from your local iwi to visit your centre or a local stream/ river with your children to discuss the importance of water and local water environments to Māori. The iwi representative could discuss the meaning of the names of local rivers, streams and lakes that your children are familiar with and tell the story of a local river.

Valuing our local waterways

- ◆ Ask your children to identify where in your local environment you can find water and identify local streams, rivers, lakes and beaches.
- ◆ Plan and conduct a visit to a local waterway and talk about what you can see, the plants and animals that live in, on or around the waterway and how the community values and uses the waterway.

Cultural Values of water

- ◆ Use photographs of cultural events provided by families or from other sources. Events could include:
 - use of water in religious ceremonies e.g. baptism
 - use of water at cemeteries (urupa)
 - competitions such as waka ama or dragon boating
 - festivals that feature water like Diwali
 - actions that show respect for water before gathering food from water or completing activities in or on the water.
- ◆ Discuss how water is used in cultural events the children are familiar with and ask questions like these:
 - Why is it important to think about water being special or precious during these activities?
 - What would happen to these events if there was little or no water?

Kupu

Tāonga – treasure
wai – water
awa – river
roto – lake
moana – sea

He tāonga te wai
– Water is a
treasure

Activity one continued:

Some action ideas to explore – ‘What is water?’

Natural evaporation

- ◆ Give your children a saucer each. Let them measure out three teaspoons of water from a jug and put it in their saucers.
- ◆ Ask your children to find a sunny spot where the water cannot get spilled.
- ◆ Encourage your children to check over time to see what happens and ask where they think the water went.

Water has no shape

- ◆ Have your children identify different shaped containers: pots, pans and toys etc that can be filled with water.
- ◆ Fill a plastic jug/cup with water and let your children predict whether a container they find will hold more or less water.

Water is heavy

- ◆ Partially fill a range of different sized plastic bags with water and tie them off.
- ◆ Place them in an empty water trough or on the sand pit. Have a large container of water and jugs available so your children can add water to the bags or containers.
- ◆ Have your children lift the bags, feel the weight of them and experiment as they tip the bags over, open them and let some of the water out or add more water to them.
- ◆ Your children could experiment using other containers or by filling latex gloves or balloons with water.

Water can change

- ◆ Put a small amount of water just covering the bottom into an electric frypan or pot (preferably with a glass lid).
- ◆ Heat the water in the frypan or pot, with the lid off, and have your children observe what happens.
- ◆ Ask your children what is happening to the water and if they can see the water vapour or steam.
- ◆ Boil the water until there is none left and ask your children where they think the water went.
- ◆ Repeat the process but this time put the glass lid on the frypan or pot.
- ◆ Discuss what happens as the water vapour or steam rises and explore the idea that water can change from a liquid to a gas and back into a liquid.

Water painting outside

- ◆ Supply your children with small buckets of water and thick paintbrushes.
- ◆ Have your children paint paths and sheds etc. Observe the water's effect on the surface and what happens as the water dries.
- ◆ Ask where the water has gone and discuss water going into the air or evaporating.
- ◆ Ask when water comes back out of the air (i.e. when it rains or snows).

Disappearing puddles

- ◆ Pour a puddle of water on a sunny area of concrete or other flat surface and draw a line around the puddle in chalk.
- ◆ Monitor the puddle and watch as the water shrinks and then disappears.
- ◆ Discuss how heat causes evaporation and what happens to the water droplets or particles as the puddle disappears.

Water balloons

- ◆ Give each child a balloon, fill it with water and put it in the freezer overnight.
- ◆ The next day, give them their frozen water balloon, another water balloon filled with water and one filled with air.
- ◆ Let your children feel the difference in weight, temperature and flexibility.
- ◆ Go outside so they can play and experiment with them.
- ◆ Find out what happens when you drop them on the ground. Definitely do this outside!
- ◆ Children can either wait for the ice in their balloon to melt and see what happens to the balloon as it melts or they can make a hole in the balloon and take the ice shape out.

Enjoying ice

- ◆ Make plain water iceblocks with your children and put iceblock sticks in them.
- ◆ Eat and enjoy while talking about ice.
- ◆ Discuss where they can find ice, for example have they smashed the ice on a puddle? What might happen if a road was icy?
- ◆ Use the photographs provided or any others you have for discussion.

Activity two:

A waste-free picnic

PRIMARY SCHOOL PUPIL WORKSHEET from Waste Watch

Working in groups, plan a picnic that produces as little waste as possible. Then create and actually have the picnic. Each group weighs their leftovers and scores waste points using the table below. The group with the lowest score wins!

What to bring to the picnic:

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

Did you know?

We throw away around one-third of all the food we buy. Most of this ends up in landfill where it rots to produce methane, one of the most powerful greenhouse gases causing climate change.

Tips for the waste-free picnic

1. Choose food that you and others will like.
2. Only bring as much as the group can comfortably eat.
3. Choose food that has as little packaging as possible.
4. Use re-usable plates, cups and napkins.
5. Use re-usable containers or bags to bring your food to school.
6. Think about how you can compost any leftovers. Fruit (not citrus) and vegetable peelings can be composted; meat, fish, dairy food and cooked food can be put in a bokashi bucket.
7. Bring drinks in re-usable bottles.
8. Remember, if the waste is created at home rather than at school, it's still waste!
9. Don't just stick to sandwiches: make your own sushi, pizza, wraps or fruit smoothies!



How well did you do?

Weigh each type of waste and multiply it by the number of 'Waste Points' it has been given. Remember, the lowest score wins!

Types of waste	Weight	Waste Points	Total Score
Waste that can be re-used		1	
Waste that can be recycled		2	
Waste that can be composted		2	
Waste that has to be thrown away		5	

Waterfalls don't stop us!

- native fish need to migrate -

