

EcoBuzz

EcoBuzz Edition 62

Term 2 2016

Tasman School Envirogroup enjoy the potato harvest. These were later roasted for all to enjoy for a school lunch.

IN THIS ISSUE:

Stream care
Competitions
Lindsey's news
Māori Perspectives
Weather watchers
And more

Kia ora tatou

Term two is nearly over and you may have noticed EcoBuzz didn't arrive at the start of term. To assist teachers in having time to contribute action stories and to be able to give heads-up for what is on offer in the upcoming term we have decided to move the production of Ecobuzz to the end of term. We hope you agree this is a positive move for you. Let us know if it is not. We are very aware of just how busy teachers are and most sincerely wish to support you in ways that actually work for you. So please contact the team for assistance.

We are sad to see Lindsey leaving – her time as the Enviroschools Facilitator and Regional Coordinator for Nelson has seen schools come on board with the Programme and many go from strength to strength on their sustainability journey. Lindsey Fish will still be coordinating Enviroschools in Nelson and is available by email until her position is filled. From us all, we wish you well in the UK. Kia kaha Lindsey

Karen Lee is back working part-time at NCC until their new person is appointed.

The quote below from the Better Futures Report brings us hope – your teaching is reaching beyond the classroom, for a more caring future.

Thanks Adie, Lindsey, Karen and Claire



Globally, Gen Y is considered to be the most environmentally and socially concerned generation yet, and set to have a huge impact on the marketplace of tomorrow

Colmar Brunton Better Futures Report 2015

Contents

News from the Councils	3–4
Regional Updates	5
Regional Enviroschools	6–8
Schools Taking Action	9–11
WES Updates	12–13
Providers	14
Snippets	15
Activities	16

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Nelson City Council School Planting Programme

He rau ringa e oti ai (With many hands the work will be done)

We've had an awesome turnout from our schools this year to take part in the annual planting programme. Students, spades, teachers, trees and Nelmac are gearing up to plant in Pipers Reserve, Orphanage Stream delta and up the Brook Valley – to name just a few places. Plantings will take place from now through to the end of Term 3 in September, with pretty much every available planting day now booked – kia kaha Nelson schools.

Mauri ora Karen

Fruit Trees can provide edible joy all year round

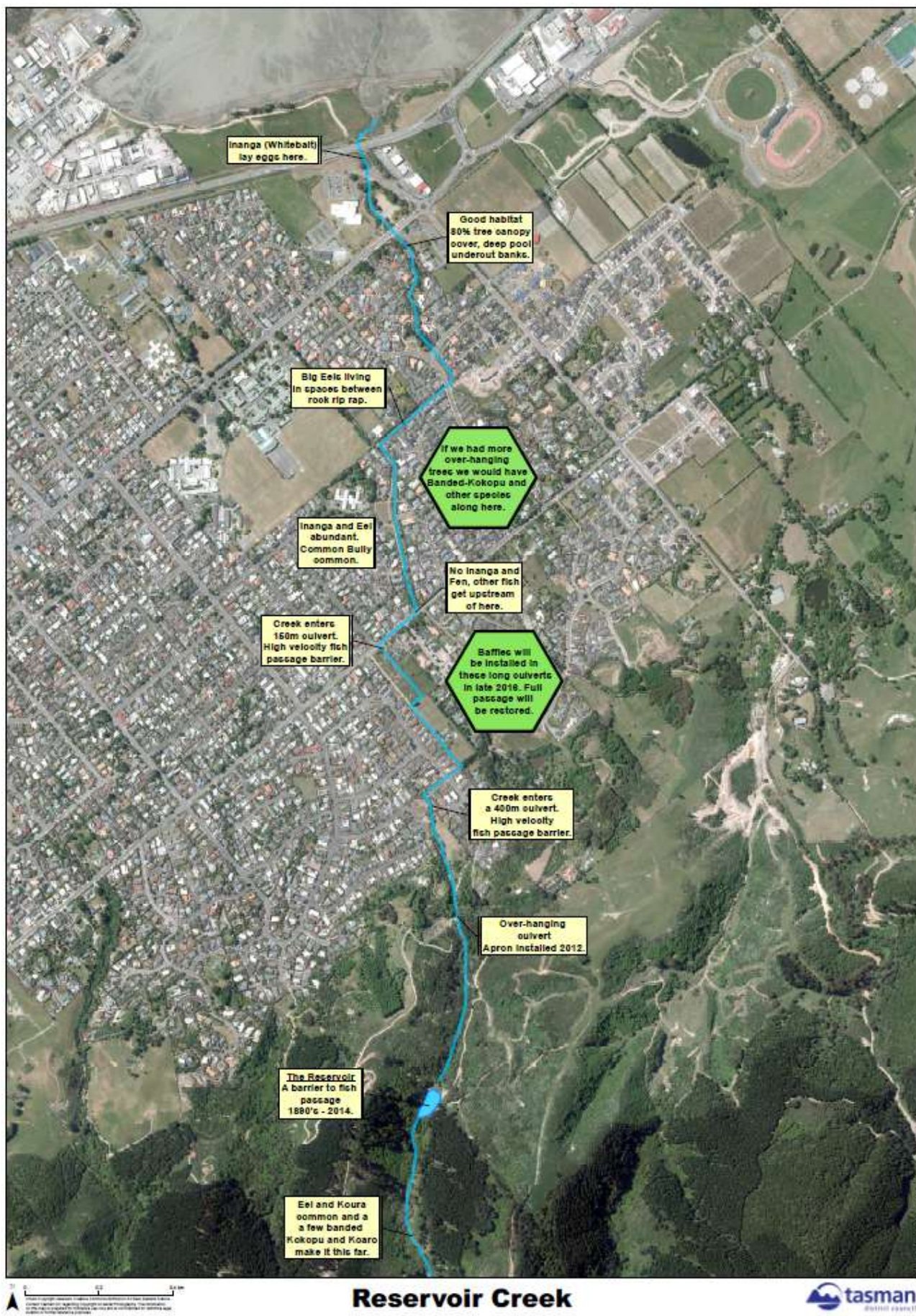
Petra Stephenson, a local Edible Landscapes designer helped out at the MOTEC working bee and was happy to share this list of edible fruit trees. You can see how best choice of plants can provide year round fruit.

Lemon Meyer	Fruits all year	good for baking
Black Mulberry	November-Jan	fruit drop in January – chickens
Mandarin – Kara	Oct – Dec	flavour
Mandarin – Afourer	Nov – March	easy peel
Mandarin – Kawano	May to July	easy peel, seedless
Mandarin Kiyomi	July – Aug	easy peel
Nashi	Feb & March	
Orange – Washington Navel	Aug – Nov	
Orange – Harwood	Late Dec – March	
Persimmon – Fuyu	Late April – early June	
Plum Black Doris	Feb (pollinator for Omega)	Marianna rootstock preferred (peach rootstock ok)
Plum Omega	Late March – April (pollinator for Black Doris)	
Feijoa Mammoth or Wiki Tu	May – June	
Feijoa Pounamu or Unique	March & April	
Apple Laxton's Fortune	Mid Feb – End March	
Apple Lobo	March to mid April	on M106 rootstock

A stream in town gets a slow make – over with lots of help from schools

The map of Reservoir Creek in Richmond, on page 4, highlights work done to help fish passage and where there are still issues for our native fish.

Mel McColgan from Waimāori has provided opportunities for many local schools to visit a section of this stream to learn about stream water quality and ecology and sometimes help with replanting the riparian margins. During 2006 – 2008 funding from the Ministry for the Environment offered an opportunity for schools, community and Council to work together to remove a major fish passage barrier, do litter clean ups and several planting projects along the bank. Several interpretation panels were also installed. Salisbury School girls have been involved from the very start and several local schools have monitored and cared for different sections of the waterway over the years. A walkway goes along most of the Creek so you can check out the different spots on the map. Exploring above the old dam site is a real treat – there are some beautiful big Kahikatea trees.





Habitat Heroes Competition 2016

Habitat Heroes encourages young people to explore a local natural environment and identify an opportunity to take action for the environment. **The competition is open from Monday 2 May to Sunday 18 September.**

Please promote this competition to your local networks, ECEs, schools, and community groups such as scouts, girl guides.

To enter, groups of two or more students need to:

1. Get outside – explore and investigate the health of a local natural environment
2. Share a summary of their work on any online channels (school blog, YouTube, Facebook, etc.). Students need to share:
 - a. Their learning and experiences outdoors, in particular, their observations regarding the health of their local environment.
 - b. Ideas and an intended action they could take to improve the health of a local environment.
3. Email your entry to us at conservED@doc.govt.nz. This could be a weblink to your blog, video, photos, PowerPoint presentation, or a PDF document of your writing. You can also post your entry on social media with the hashtag **#HabitatHeroes** in your post.

The winning projects will receive \$750 in vouchers to contribute to their identified conservation action project.

There will be one prize for each of the following categories:

- Early childhood centre
- Community group e.g. scouts, girl guides
- Years 1–6
- Years 7–9

For more information, visit – www.doc.govt.nz/habitatheroes

Farewell, so long....sort of..

This is a good bye and thank you from me. I have made the difficult decision to return with my family to the UK. Difficult because amongst other things I am leaving a job I love, a position I have felt privileged to hold; working for a programme led by people who have my deepest respect and aroha.

However, I have been asked by Nelson City Council to provide interim Regional Coordination support, until a new Regional Coordinator (RC) is appointed, working remotely, which I have agreed to do. This is fantastic as I am still organising a couple of events for Term 3. So please don't hesitate to contact me by email and if I can help I will or point you in the right direction if I can't.

I am proud to leave the Enviroschools programme in Nelson in very good health. After a successful review last year, we have continued to have increased support from Nelson City Council. This is also a positive time for Toimata, the Enviroschools umbrella foundation, with recent news of renewed Ministry for Environment endorsement and funding following a thorough evaluation.

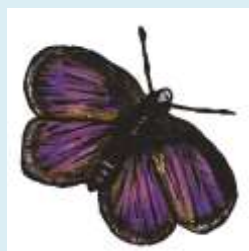
I have been fortunate to work with some inspiring and truly dedicated professionals in the environmental education field and I've learned a lot. However, my admiration especially goes out to the Lead teachers who drive the Programme in their school, on top of what is already an unrealistic workload. It is encouraging to see that as the Programme is going deeper in an increasing number of Nelson schools, as environmental education becomes properly embedded, the workload isn't added to, it's just the way things are done. Sustainability just becomes integrated as a normal part of what happens everyday, with opportunities for it identified. The students driving the Envirogroups have also been wonderful to work with and many will become future leaders, no doubt.

I wish you all well for the future and look forward to hearing about the continued success and growth of the programme.

Kia kaha!

Lindsey Fish

lindseyfish@xtra.co.nz



Tasman School's Action Project (and Cover photo)

With thanks to the Enviroschools Action Project Fund, our Enviro-leaders could action the idea of converting an old shed into a potting shed.

After they cleaned out the old shed, we were able to flood it with more sunlight by adding 2 sheets of new clear light into the roof. We also knocked out a wall replacing it with a double size window that was bought at a recycle yard. We had a band of 4 students and two handy parents for the working bee, which took us the best part of a Saturday. We added two benches, and bought some tools (small spades, trowels and rakes.)

Last year we were able to add to this project by buying mini glasshouse potting trays, and a heat pad to speed up germination. We also accessed wooden tools which allowed us to recycle newspaper to make into pots, which when filled with a growing seedling, could be put straight into the soil after germination in the heat.

Continues on page 7...

Tasman's story continues...

We also acquired a quantity of seeds, vegetables, flowers, and herbs. Over the spring, we germinated hundreds of plants in these newspaper pots, which we then transplanted into the school gardens – zucchini, tomato, corn, water melon, sunflowers, chamomile and basil.

We raised almost \$200 by selling some of the seedlings to the parent community at \$1 each. This will be our seed money for next spring.

We also filled one of our gardens with spuds, which we eventually roasted and shared with the whole school one lunch time. (See photo on front page)

This year we will be taking cuttings of hebe to plant out in spring, and to seed our new stock for the gardens. We have also collected flax seeds and swan plant seeds.

The lunch time is never enough to do all our projects. At the moment it's raking leaves for the compost, and still seed collecting. We would like to plant several walnut trees so in 10 years' time the students could be eating these nutritious nuts!

We are very much appreciative of the Enviroschools fund, without which these projects would never have got off the 'ground'

With thanks, Fred Robertson Teacher Tasman School.



What could Fonterra and Takaka Primary School have in common?



The Motupipi River is the answer.

The Takaka Primary School Envirogroup visited a section of the Motupipi river on the Fonterra Farm several times with Claire Webster (their Enviroschools Facilitator) to learn more about river ecology and how we can help it improve. The group then set about teaching their peers all they now knew about sedimentation and soft bottomed spring-fed creeks, dissolved oxygen levels in weed infested waterways and how planting the river banks helps fix both of these issues. The accompanying adults (parents, teachers and Fonterra staff) also got to learn a thing or two it seems. Certainly the leaders received many compliments for their efforts.

The school is now keen to keep the relationship ongoing.

Envirogroup member Jody shows her classmates how to plant a seedling tree to give it the best chance to survive.

Deepening Maori Perspectives Workshop

We had a massive 160% response to the recent teacher workshop led by Cindy Batt. Teachers enjoyed hearing local IWI history and stories, Matariki and making bird callers. Again the workshop also provided an opportunity for some catch ups and cross sector networking, a feature we know is popular. Cindy also highlighted the use of 'The Prow,' as an invaluable local history resource.



Cindy Teaching us a song to help remember the 9 local Iwi of Nelson.

[Nelson, Marlborough and Tasman history, culture and stories - New Zealand | Ngā Kōrero o Te Tau Ihu](#)

The Prow: ngā kōrero o te tau ihu features historical and cultural stories from Nelson, Marlborough and...THEPROW.ORG.NZ

This is what some teachers said: "Very thorough, insightful, so much information is incredible"

"Today's workshop is the first I've been to considering local iwi. More please"

"First time I've ever experienced a workshop like this."

"I have enjoyed it and I will include this aspect more in my social studies curriculum"

"I feel honoured to have shared in this learning."

With an over-subscribed workshop we have identified a real need for support in this area and we look forward to a follow up workshop in the future.

With many thanks to Cindy Batt, Toimata and Nelson City Council.

Collaboration and transition in action at Nelson's newest Enviroschool

The newly formed 'Enviroagents,' at Nelsons newest Enviroschool-Nelson Central School-haven't wasted any time after being formed at the end by term1. They have zipped into action following the Action Learning Cycle.

Identify the current situation:

After identifying they wanted to take action to reduce waste in the school. They conducted a waste audit, alongside Sarah Langi from the Nelson Environment Centre.

This included the group sharing their findings with the rest of the school. The group plans to enter the data into the Enviroschools measuring change web tool to monitor the changes they are making.

www.measuringchange.org.nz

Continued on page 9





Collaboration article continued ...

Explore Alternatives

The Enviro Agents also visited their local Kindergarten—their mission was to investigate all the good ideas for dealing with waste that the Kindy uses.

Continuity of waste procedures will also make for a transition of sustainability values and practices for tamariki between the ECE and the school; the 2016 focus for Nelson Enviroschools.

Take Action

The Dynamic Agents worked out an action plan and applied to the Nelson Environmental Action Project funding in order to set up some composting systems in the school.

Well done guys. We look forward to your reflection on your actions later in the year.

With thanks to Karen Tait and Grove Street Kindergarten.



Richmond School's Environmental Group know 'Why the fish climb the ladder?'

Instead, Richmond School students had their personally created 'native' fish go down the Reservoir Creek fish ladder. Their fun was even filmed and shown internationally as the first official activity in the world, for World Fish Migration Day on 21 May. Check out the video on YouTube:

<https://www.youtube.com/watch?v=BUVL19IT8K8>



Some Richmond School students releasing their fish to go down the fish ladder

The students learnt how man-made in-stream structures such as weirs, culverts, dams and so on put native fish species at risk. Native fish species use the Reservoir Creek fish ladder in Richmond to migrate, helping them get to where they need to go for breeding, feeding and to complete their life cycles. It is an example of some of the work Council engineers and scientists now do to help restore a path for fish.

Trevor James a Resource Scientist at Tasman District Council, has a little story of the importance of looking after the habitat and migration of fish in small creeks: 'If the 55 kilometres of small creeks in the Waimea Inlet were all accessible to fish, that would equate to about 600,000 whitebait returning from the sea!'

Thumbs up for Hira School! Congratulations

At their holistic silver reflection recently, it was agreed that Hira School could now call itself a Silver Enviroschool. The reflection team was made up of the Envirogroup from years 1–6, teachers and the Principal, Trish from Hira Kindergarten, Adie from Tasman Enviroschools and many parents. Rick from the Brook Sanctuary, John and Nicky of the Nelson Provincial Museum and Sarah from The Nelson Environment Centre, who have worked with the school, came to contribute. Adding to one of the biggest reflection teams ever seen, were ex-Hira staff Pam and Helen, Louis's Uncle Mickey and local community members, such as Barbara Stuart from Landcare Trust, leading to a packed car park. Valuable evidence and recounts of the broad range of action projects the school has been involved in since its Bronze reflection was provided. The large attendance was also an indication of the high esteem people have for the school, and how their environmental actions have involved not only the whole school but the wider community.



We especially enjoyed hearing about some of the student led inquiries for example, the eco-shed building project and the latest project, “The old man’s beard warriors”. As well as the continued care of the Wakapuaka stream, which has expanded over time to include an award winning film. One example which showed how sustainability is integrated across the four key areas of the school was shown in the recent disposal and purchase of furniture for a classroom upgrade, when nothing was sent to landfill and green purchasing decisions were made.

The event was celebrated with a delicious pizza lunch cooked in the School’s wood fired pizza oven. Thank you to the Envirogroup and Leadteacher Sally Jamieson for organising a great morning of reflection. Lindsey Fish, Sally Jamieson, Jane Pearson.

Children/Young People Voting 2016

Kids Voting gives young people aged 11 to 15 years (school years 7 to 10) the opportunity to experience an election first hand.

Students vote for real candidates on real issues and will be able to see how their results compare to the official election results.

This political awareness resource teaches students, the future voters, about democratic participation.

To sign up your school, get the teaching resource or find out more about Kids Voting, visit

<http://www.lgnz.co.nz/vote2016/voters/kids-voting>.



Saving Our Stream

The Green Ninjas, the Tahunanui School Enviro group, have been looking after Jenkins Stream. "We would like to save our stream so future generations can use our waterways to gather kaimoana and have a clean water way from the mountains to the sea."



The stream is in a bad condition as we found rubbish, little life and few good indicator species. We visited our stream on the 3rd of June with Mel from Waimāori Stream Care to conduct test to make these discoveries. It will be exciting to continue the actions of last year's Envirogroup and to include our own to the project. We are continuing to make a model of a waterway to show our community how easily streams are polluted and we will explore what we can do this year.



The positive aspects of the stream visit were that the clarity was good and the stream was flowing fast. The negative aspects were we found rubbish in the water and there were not many invertebrates present. The Ninjas all thought it was interesting to conduct pH tests, measure the temperature and to use a periscope to measure water clarity. It was also fun to explore what may be living in the stream.

By Recho, Joshua, Eva and Taila

Action on Community Garden vision at MOTEC

Thank you – thank you – thank you from the teachers at the Motueka Technology Unit, MOTEC for all the mahi of adults and students that went into developing the vision for the Community Garden. Whilst the garden started quite a few years ago, with the personal effort of teachers, especially Megan Wilson, and occasional help from the students, it was the exciting vision, which developed during the shared fun at The Community Game held there last term that led to recent action.

Head teacher, Jo Calt and her team organised a working bee and things got done by adult volunteers and some of the students in the Envirogroup.

The garden is almost weed free and it won't be long for the soil to be nourished ready for the next planting season. Fruit trees will be added, donated by Tasman District Council as part of their Arbor Day planting programme and an application is being made for a grant for up to \$2000 from Maara Kai.

The MoTEC workshop has the tools for making a stand for the worm bath and signs for the vegetables.

Megan Wilson was very appreciative: "as one who has spent many hours in the garden (as it was) over the last few years it was wonderful to see so much happen in such a short time. Great progress made towards a wonderful new community garden – a growing, learning and relaxation space for all to enjoy and benefit from. Huge gratitude from me."

The Enviroschool students are really on board and are excited by the changes they can see already.

Looking forward to seeing the 'fruits of their labour'.



Photo caption: Some of the keen helpers on the working bee at MOTEC



School caretakers brave the rain to tour the MRF at Richmond Resource Recovery Centre!

Eighteen caretakers from Tasman and Nelson schools enjoyed their tour of the Richmond Recovery Centre, guided by Adie Leng from TDC and Emma-Jane Carpenter from Smart Environmental.

They saw the new MRF (Materials Recovery Facility), where recyclables, other than glass, go after they leave the kerbside bin. After the tour, they enjoyed a pizza lunch and an annual catch up about waste management in their schools.

Many commented that everyone not convinced about recycling would change their minds by coming on this tour.

What the caretakers think

What is working well in their schools

- kids doing the recycling
- being informed recyclers after doing relevant in-class units of work
- staff room recycling
- all staff working together
- no rubbish bins
- paper and card recycling
- waste free lunches
- re-using materials for projects
- green waste and composting
- the new 1100 litre bin

Major headaches:

- plastic lunch wrappers
- unwashed plastic containers
- food waste
- green waste that can't be recycled
- lack of reinforcement of good reuse, recycling behaviours
- one college responded "lazy kids"!



Recyclables being sorted by the MRF in Richmond

How does a Materials Recovery Facility (MRF) work?

Although not as effective as seeing the real thing, if you want to show your class how a single stream MRF operates and how recyclables get sorted, watch:

https://www.youtube.com/watch?v=Rz-K2oaX1_Q (3 min 51 sec) and an animated version

<https://www.youtube.com/watch?v=7CFE5tD1CCI> (2 min 50 sec)

To organise a tour, please contact Adie at Tasman District Council:

adie.leng@tasman.govt.nz or phone 03 543 8400

Please note that tours are limited and only in middle weeks of each month.

Date for your diary: a WORKSHOP How to host a zerowaste event and green your school's purchasing

10 August 3.30–4.30 pm at Nelson Environment Centre

This free workshop will give you ideas and guidance on how to run a zero-waste event and how to make your school purchasing policy more ethical and eco-friendly. Teachers who have experience in running zero-waste events will share their experience and the lessons they have learned. The session is for anyone involved in organising school events and/or ordering school supplies: teachers, office staff, envirogroup leaders, parents, etc.

To register, or for more info, contact:

Sarah Langi

Waste Education Services– Nelson *funded by Nelson City Council*

Email: sarahlangi@nec.org.nz

Phone: 545 9176 ext 1

www.wes.org.nz

Using real estate signs to make recycling signs and boxes.

Real estate signs make great recycling boxes and using them in this way saves them from going into landfill. Tauranga's Paper4trees programme is using the signs to make recycling bins for schools and workplaces around the country to collect paper and cardboard for recycling. Paper4Trees has spread to 4000 schools around the country, with 50,000 recycling boxes nationwide. To see the boxes, check out this quick video:

http://www.nzherald.co.nz/bay-of-plenty-times/news/article.cfm?c_id=1503343&objectid=11626259

Resources

Check out this fabulous Unit Plan on Worms from Science Learning Hub

<https://beta.sciencelearn.org.nz/resources/18-unit-plan-earthworms-lower-primary>

Dates for your diary....

- 20 July Artbox open 3.30–4.45pm for arts and crafts materials: (open 3rd Wed each month)
- 10 Aug Teachers' Workshop: How to host a zerowaste event and green your school's purchasing. 3.30–4.30 pm Nelson Environment Centre.

Project Janszoon Education

TOGETHER RESTORING THE ABEL TASMAN

It's hard to believe that Project Janszoon Education has entered its 3rd year of supporting student and teacher engagement around conservation in the Abel Tasman. Our main focus has been supporting our partner schools and developing the 'Adopt a Section' programme. We've also been working to build up our web site education.janszoon.org. We encourage you to visit and welcome your feedback!

On the radar for terms 3/4:

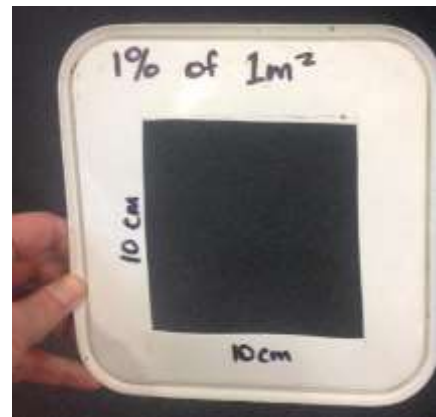
1. We are getting ready to offer information sessions and invite new schools to become 'Adopt a Section' partners. If you think your school would be interested, please email us at education@janszoon.org so we can keep you in the loop as things progress.
2. We are looking to offer some professional development short courses around things you can do with your students related to conservation and the environment when you visit the Abel Tasman National Park. If you want to be on our email list for more information when it becomes available, please contact us at the email address above.



Measuring percentage of seaweed cover

Here is a tool that is simple to make to help you to estimate the % coverage of seaweeds in your metre squared quadrat. Cut out a 10 cm x 10 cm square from the lid of an ice cream container. This space is 1% of a square metre.

Easy!



Sustainable Coastlines are visiting Nelson and Tasman soon

Schools will be hearing from Oliver Vetter of Sustainable Coastlines-Love Your Water

Meanwhile check out - <http://sustainablecoastlines.org/event/love-your-water-2016/>

and watch videos: <http://sustainablecoastlines.org/education/treasure/>

Do you teach your students about New Zealand birds?

If yes, you won't want to miss out on our super-fun game 'Guess Which New Zealand Bird' – played like 'Guess Who?' The game is available as a free download. You must create a user login to access the resources – also quick and free! We have some full-colour laminated versions of the game available at our cost if you want to make things easy for yourself. More information at



<http://education.janszoon.org/resources/birds/which-new-zealand-bird-game/>



20 chances to win \$1000 for your School/Centre

New Zealanders can save used oral care items from landfill and join a nationwide competition to help raise funds for a local school, club or community group.

Colgate Community Recycle Drive returns

The Colgate Community Recycle Drive is encouraging all New Zealanders to recycle their used oral care items including toothbrushes, toothpaste tubes and their outer packaging as well as floss containers and participants have a chance to win prizes. [Partnership with TerraCycle continues.](#)

New Zealand's Sandy Coasts Educational CD

The aim of this resource is to encourage secondary school students to learn about coastal processes and to use coastal processes as a tool for understanding other natural phenomena such as waves and tides. The CD is designed to raise awareness of coastal issues and hazards, such as the effect that erosion might have on coastal development. "Sandy Coasts" promotes the message that environmental science is fun and relevant. The resource is built around six modules: Overview of our coastal environment, What causes beaches?, Surf-zone processes, Beaches, Dunes, and Coastal erosion. Other topics within the modules include: winds and waves, tides and sea-level rise and rip currents. Each module ends with questions posed at a range of levels. Numerous Web links encourage further reading/research.

Cost \$15 For further information, or to order, contact:
George Payne at NIWA, Phone +64 7 856 1767 g.payne@niwa.co.nz
NIWA PO Box 11-115 Hamilton

Activity two: Weather Watch

This American site <http://teacher.scholastic.com/activities/wwatch/> has a wide range of activities based on observing, investigating, gathering data and analyzing. Although America based, much of it is relevant to New Zealand weather systems too. Create a class of weather experts – what an empowering way for them to learn about their surroundings. It will be easier to learn the cloud names if you start with describing the different clouds that you can see in general, poetic language and where they are in the sky, and relate these to the weather at the time and soon afterwards.



http://www.scholastic.com/browse/search/teacher?VT=2&channelOnly=true&Nty=1&Ntx=mode+matchallpartial&N=fff&Ntk=SCHL30_SI&query=weather&N=0&No=0&Ntt=weather

Cloud Observations

Day	Draw one example of the type of clouds you see. Label it Cumulus, Stratus, Cirrus, or Cumulonimbus.	Circle the color of the clouds.	Count how many clouds you see. Circle the answer.	Are the clouds dropping rain?
		white light gray dark gray other _____	0 1 to 10 11 to 20 more than 20	Yes No
		white light gray dark gray other _____	0 1 to 10 11 to 20 more than 20	Yes No
		white light gray dark gray other _____	0 1 to 10 11 to 20 more than 20	Yes No

Students can learn how to make their own anemometer, wind vane, barometer, rain gauge and thermometer. They can learn some American State names and become weather forecasters to boot. Worksheets like the one above are downloadable and free.