EcoBuzz

EcoBuzz **Edition 57** Term 1 2015

IN THIS ISSUE:







Welcome to 2015!

2015 is the UN's International Year of Soils to recognise the essential role that soil plays in growing sustainable food for healthy lives. In the words of Food and Agriculture Organisation's Director-General José Graziano da Silva,

'Soils are the foundation of vegetation and agriculture. Forests need it to grow. We need it for food, animal feed, fibre, fuel and much more. Soils host at least one quarter on the world's biodiversity. They are key in the carbon cycle. They help us to mitigate and adapt to climate change. They play a role in water management and in improving resilience to floods and drought.'

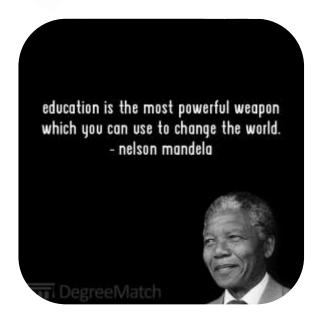
Soils don't have a voice and few people speak out for them, it can be a dirty subject. Perhaps 2015 can be the year you 'speak out' for the soil in your school or early childhood education centre. Be inspired to learn about the bugs and beasties that hang out in your garden, under your sports fields and favourite trees and flowers; to find out how composting can help your soil grow strong and healthy plants; and to empower your students to 'speak out' for healthy soils.

We hope you've had a great break over the long summer holidays and wish you all the best for a successful 2015. We look forward to working with you over the coming months.

Thanks Mary, Lindsey, Adie & Claire



""Humankind has inherited a
3.8 billion-year store of natural
capital. At present rates of use
and degradation, there will be
little left by the end of the next
century [i.e., by 2100]"
- Hawken, et al, 1999



Contents

News from the Councils 3 - 4Regional Updates 5-6 Regional Enviroschools 6-9 Schools Taking Action 10-11 Provider Updates 12-15 **Snippets** 16 Calendar 17 Teacher Activities 18 - 19

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



Mary Curnow

Environmental Programmes

Officer

03 546 0383

marv.curnow@ncc.govt.nz



Lindsey Fish
Enviroschools Facilitator &
Nelson Regional Coordinator
0211460247
enviroschools@ncc.govt.nz

NCC Heritage Week 2015, 11–19 April

The theme of Nelson City Council's Heritage Week 2015 is 'Health and Medicine'. If you think this has nothing to do with the environment – think again! Here are just some of the activities you could do during the Easter holidays. For a full list of activities go to the NCC's website www.nelson.govt.nz, search phrase 'Heritage Week 2015' or the Its On website, www.itson.co.nz.

Maitai Walkway Quiz - 15 March - 17 April

Explore the Maitai walkway, identify native plants, and be in with a chance to win movie tickets or a swim pass. Entry forms are available from 15 March via the 'Its On' website www.itson.co.nz or the Council website www.nelson.govt.nz search phrase 'Maitai Quiz'.



Edible Walks - Sat 11 April, 1.30pm Maitai Valley Road, Branford Park

Come to the unveiling of a new information panel on edible walks and Council's 'Open Orchards' initiative, and go on one of the guided walks around Branford Park. Walks start at 2pm and 3pm. Find out what goodies can be harvested from Council's 'Open Orchards' initiative.

Copies of this and other walks will be available on Council's website www.nelson.govt.nz search phrase 'Heritage Walks' or 'Edible Walks' from 20 April 2015.

'Water is Life' – Susie Woods, Sun 12 April, 3pm Nelson Provincial Museum

Susie Woods will be talking about what makes a river healthy. Go to the museum's activity room where their latest exhibition 'Pandemonium of Parrots' will form the backdrop.

'Harvest for Health' — Nicola Galloway, Tues 14 April, 12.30pm Elma Turner Library Activity Room

Nicola Galloway will be sharing her ideas around what to plant in a garden and once grown, what to do with the produce.

Wild in the Heart of Nelson (for under 5's) — Wed 15 April, 9.30am & 10.30am, Fairfield House



The Nature Playgroup invites you to join them as they explore the 'wilds' behind Fairfield House. This is a chance for under 5's and their families to enjoy nature and get in touch with their environment.





News from the Councils

Ecobuzz Survey

You will be receiving a survey link in an email soon asking your use and views of this Ecobuzz newsletter. Please complete this survey so that the future Ecobuzz can cover the range of needs. All those who complete the survey will go in the draw for a Whitcoulls voucher. We thank you in advance for your time!

Choice Children's Day

Sunday 1 March, 2-4pm, Conifer Park, Richmond CCD returns to Rabbit Island for an afternoon of free family games, activities and entertainment.

Keep an eye out for toxic algae

Both councils in the Nelson and Tasman districts are warning people to keep an eye out for toxic algae when swimming in rivers in the top of the south. Toxic algae thrive in warm weather when there has been little to no rainfall. The best way to stay safe is to know what to look out for. Toxic algae colour is brown/black, it is soft, almost jelly-like and grows attached to rocks, but can detach and float on the surface. If you see algal mats on the river's edge or floating in the water, it is advised you swim elsewhere. It is dangerous for animal and humans to touch or eat. Contact your vet or doctor immediately if ingestion occurs.

For more information, visit nelson.govt.nz or tasman.govt.nz and search = toxic algae.



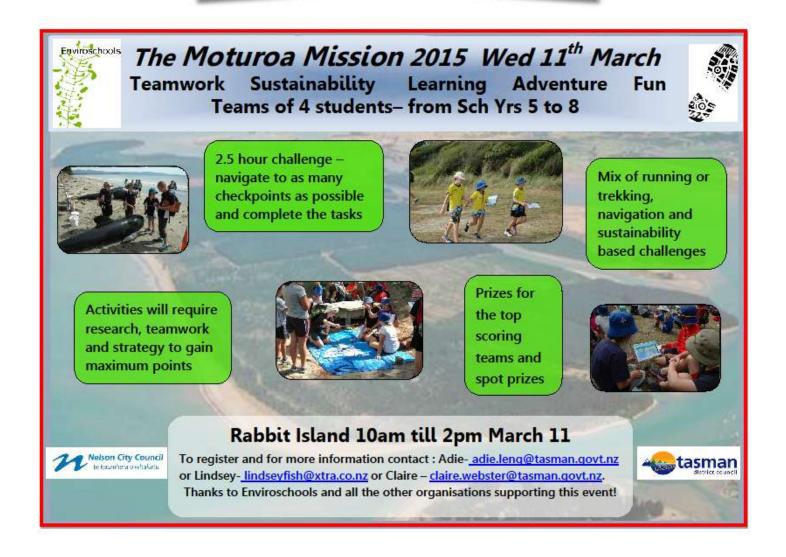
A rock removed from the stream with toxic algae on it



A floating raft of toxic algae







Tours of Eves Valley landfill stop in June

The Tasman landfill at Eves Valley will be closing in June. At present there are a limited number of tours available, in combination with the Richmond Resource Recovery Centre and Greenwaste to Zero, to those schools, which are undertaking a review of their resource use and waste minimisation practices. Contact Adie Leng for more information.







Congratulations to Nelson Intermediate School, Grove Street Kindergarten and Hampden Street School who are now Bronze Enviroschools.

We also welcome Auckland Point School as our 20th Enviroschool in Nelson. Over 60% of Nelson Schools are now in the Enviroschool programme. Ka pai!

Enviroschools





Greenwood Kindergarten:

As part of our TDC/Enviroschools Grant we purchased these two, 20 litre Drum Pumps (\$79 from Fruit Federation) and plastic jerry cans (\$29 each from the Warehouse) to use with the learning of conservation of water. These two drum pumps have enhanced our environmental learning to a huge degree and really improved the water play. We also learnt a siphon tip: glue the screwable tops on so they don't get removed thereby making the siphon useless.

Nelson South Kindergarten:

As part of our NCC/Enviroschools grant we developed a Community Garden which was so productive before Christmas. Many families are involved and are very grateful for the vegetables they take home. Our children love working in the gardens and feel very proud taking food home. Photo shows children hardly identifiable under their hats! All teachers are involved.





Nelson Enviroschools Events 2015

Nelson Enviroschools will be celebrating its 10th year in 2015! Our team has decided that our focus will be one of celebrating and sharing: Sharing of the spoken word; sharing of the written word and sharing by providing even more cross-sector networking occasions for schools and students after hearing how much you value the opportunity. We have designed an exciting and inspiring diary of events, with some surprises to come along the way!

<u>Date</u>	<u>Time</u>	Event	Who for?	Where	Contact for more information
Term One					
30 Jan		Environmental Action Fund Applications Open	All Nelson Enviroschools		Your facilitator
30 Jan		Moturoa Mission Team Registrations open	Years 5-8	Rabbit Island	Your facilitator
TBC	TBC	Reflection Workshop	Cross-sector teachers	Saxon	Helen Durbridge
12 Feb	4-7pm	Secondary action planning hui	Nelson Secondary students	NEC	Lindsey Fish
27 Feb	Registrations for Moturoa Mission Close				
5 March	3.30- 4.30 pm	Kit n coffee	Cross-sector	Founders cafe	Lindsey Fish
6 March	Applications for Nelson Environmental Action Project Fund Close				
11 March	10 am-2 pm	Moturoa Mission Sustainability Challenge	Envirogroups yrs 5-8	Rabbit Is	Your facilitator
19/20 March	Various	Poetry Slam	Years 7-13	Nelson Intermediate & Secondary Schools	Lindsey Fish
Term 2					
22 April	Twilight	Workshop to unpack the kit.	Cross sector, especially teachers new to Enviroschools	TBC	Lindsey Fish
14 May	3.30 pm- 4.30 pm	Kit n coffee	Cross sector teachers	Café Affaire	Lindsey Fish
19 June		Interim Financial report for Environmental Action projects due			
25 June	4pm-7pm	Purakau presentation +Maori Perspectives PD	Cross sector teachers	TBC	Nelson Team
Term 3					
5 Aug	3.30- 4.30 pm	Kit n Coffee	Cross sector teachers	Café Affaire	Lindsey Fish
24 Sept	4-6 pm	Pecha Kucha evening	Cross sector-teachers	TBC	Nelson Team
Term 4					
14 Nov	Final report for action projects due				

Kia ora Lindsey, Helen and Roger

Tasman School now has 'The Potting Shed.'



Students from the Envirogroup with help from teacher, Fred Robertson, identified the re-use of an old, rubbish filled shed to fulfil their vision of having a potting shed. They wanted a place with light and warmth so any seedlings they collect or grow would get a good beginning, before they were put outside, and to provide storage for tools. It could also become a new tuākana-tēina teaching/enviro space.

Sharing the idea...getting permission; excited gutting of the shed, sketches, more ideas and a plan...sharing the final plans...getting more permission and more excitement finding the resources. The sustainable options included a recycled front window, two sheets of clear light for the roof, labour possibly from parent help but some expertise might be necessary, hooks for tools and new spades. Action, parent help, cleaning it up and tada...Tasman School has 'The Potting Shed' with plants, tools and at lunch times, students.

Ngatimoti School – growing their own native bush tunnel





Appreciation of what the school already has led to seeing the need for more native bush and shady play havens in the school grounds. Knowing they could use the native plants they were already growing, led to lots of ideas, school consultations, researching options and local models before everyone at the school decided on combining these needs to grow their own native bush tunnel. The native bush is planned to attract and provide a habitat for native birds and insects, provide wind protection and shade, offer a Maori perspective on uses of trees and a legacy for the students who personally chose and provided their own plaque for each tree. The Envirogroup students, with support from teacher, Debbie Godsiff, had to provide a maintenance and development plan so this long term project has been well set up.

Congratulations to Tasman Enviroschools ©

- Tasman School = Silver
- Richmond Montessori Preschool = Silver
- Parklands School = Bronze

Wonderful reflections demonstrating child and student leadership, as well as the array of practices and projects



Waverley Street rainwater tank

It doesn't take long to see that learning about conservation of water is an essential requirement in early childhood where water play is so much fun and you have taps, hoses, a garden and a sandpit. Now the children know how to gauge water use through checking the water level gauge on the tank and linking the wet-dry weather to water levels and water pressure. Prioritising water use to watering plants and responsible sandpit play applications have been essential learning this summer.



Gardening Competition

Four Nelson Enviroschools have been involved for the second year running in an exciting gardening competition run by Hampden Street School Enviroschool lead teacher, Simon Ashby. The schools involved are Hampden St, Tahunanui, Nayland and Clifton Tce. The children who enter are asked to grow any type of garden they choose at home-by themselves, with family members or friends.

Our competition is kindly sponsored by Rae White Real Estate Nelson who provide generous prizes for our winners. Each school does their own in house judging in early December and nominate one student to go through to the



Interschool judging. Our main judging criteria are about student ownership (their ability to talk about what they've done with some passion) and success in gardening.

2014's competition was a huge success with the overall winners being Charlotte and Caitlin McKnight from Clifton Tce School.

Please get in touch if you are interested for 2015's competition email simon@hampdenstreet.school.nz

Schools Taking Action

Junior School Gardens at Tahunanui School



Our junior and middle school students arrived back at school this year to a nice surprise. During the school holidays a small team of helpers gathered to complete our junior and middle school gardens. Last term all pupils had the opportunity to paint a colourful image of what school and being an Enviroschool meant to them. These were to be used to form the edges of the gardens. We have a fantastic garden by our new senior MLE (modern learning environment,) and it was thought we needed something for the rest of the school so they can see their plants grow and care for them every day. One day in January 7m3 of soil arrived at our school and we gathered as many people as we could who had a few hours to spare. "It was great to return to school and see the colourful gardens" our staff said. "It will create ownership within our playground"

We cannot wait to get planting. (Heidi Newland-

Enviroschools Leadteacher, Tahunanui School)

Kids Edible Gardens at Victory School:building a bean tepee



The garlic looks great!

Last term, the Kids Edible Gardens (KEGS) students planted zucchinis, peas, beans, tomatoes, sunflowers, and pumpkins and took seeds to plant at home. This is a great way for them to share their knowledge and enthusiasm with their families. They harvested the garlic that they had planted at Matariki and built a tepee from bamboo sticks. They learned how to plant beans either side of each pole, one finger-length deep. The school this year will move from KEGS to a new programme "Garden To Table" (GTT) that is setting up in our region. Garden To Table is very similar to KEGS, but with equal emphasis on cooking and growing.

This will allow one more school to participate in KEGS, effectively increasing the number of schools growing and cooking healthy food in Nelson.



Building a tepee for the beans is fun!

Schools Taking Action

Victory Primary School Joins the National Weather Network!

A new professional weather station has been approved for installation at Broads playing field across the street from Victory Primary School (VPS.

This project is a joint venture with Nelson Boys College, VPS and Nelson City Council; made possible by a generous donation from Peter J Lamb an old boy of both schools.

The weather station will provide real time data to both schools and the national climate network. This will include wind speed/direction, temperature, humidity, solar radiation and barometric pressure. The weather station will provide students with information and will facilitate learning about the seasons, atmosphere, global warming, solar radiation, pollution, green house effect, energy and the many ways weather effects our environment. We are expecting the weather station to be completed in Term 1 2015.

Photo of Peter Lamb's sister Joy Oakley from the Cawthron Institute, and his children Karen Lockwood, Brett Lamb with Paul Sheldon NCC/TDC



Walking the talk to sustainable practices with children at Nayland Kindergarten.





To be able to walk the talk and sustain ecological actions over time with children at Nayland Kindergarten, we know the importance of a sense of community, "whakawhanaungatanga". By encouraging our whanau to feel that they can engage with children in the programme and share their knowledge and skills about caring for the environment, enables our children to have a wide range of experiences.

You could say that this is a community taking action everyday, watering, planting and repotting with the children and planning the gardens with children.

Having whanau doing a weekend roster to get our gardens and environment ready for the next week gives teachers and children the time to really engage and deepen ecological actions.

Children see adults taking action everyday.



Provider Updates



Focusing on the topic REDUCE your WASTE, Waste Education Services (WES) funded by Nelson City Council, can help you reduce your waste and take the next step to becoming a zero-waste school. For the past 8 years, we have been providing waste education to schools and early childhood centres, helping set up recycling systems and supporting schools to become zero-waste by recycling paper card and plastic, creating waste-free lunch initiatives, and setting up compost and worm farming systems for their active kids veggie gardens. Twelve schools are currently well on the way to achieving zero-waste; four of these are just a whisker away!

An additional focus for WES this year is reducing food waste, with resources and activities for teachers. WES programmes are free to schools and tailored to suit your individual class curriculum.

WES continues to offer support in all aspects of waste education; including:

- lesson plans, activities and resources
- waste audits
- · workshops in consumerism, smart shopping, wise resource use
- zero-waste lunch workshops (food waste and packaging)
- worm farm workshops
- build a compost heap
- assistance with developing policies on whole-school waste minimization
- plastic in the ocean
- The oil game.



Artbox art exchange: a treasure trove for children's art/craft materials

Our Artbox, which "rescues" materials suitable for children's arts and crafts from landfill, will be open as usual on the 3rd Wed each month at 3.30-4.30pm , starting Feb 18th at Nelson Environment Centre.

We are really well stocked with paper and card and lots more; we also have a stock of "Good" and "Green ideas" magazines to borrow to give you more ideas, so come along; teachers from schools and early childhood centres are all welcome. Bring any surplus treasures you may have to exchange; if none, you are still welcome.

An annual subscription of \$15 applies; materials are free.

To book a session, or for more info, contact:

Sarah Langi

Waste Education Services and Small Planet - Nelson funded by Nelson City Council

Email: sarahlangi@nec.org.nz Phone: Nelson Environment Centre: 545 9176 ext 1 www.wes.org.nz





Kids Edible Gardens in Schools (KEGS) has a new Coordinator

Carolyn Hughes, Nelson Environment Centre, is our new Kids Edible Gardens coordinator for Nelson KEGS schools, replacing Sarah Langi, who will be spending more time with her wee grandaughter this year! Carolyn is a passionate gardener and is really excited about her new role.

Carolyn says: "Six acres in Tasman has been home since 2004. It's been hard yacker (can you hear the Aussie coming through?) converting compacted clay suffocated with gorse and brambles into an organic permaculture garden. But now it's giving back in spadefulls with fruit, veg, herbs, poultry and well-fed wildlife. All of this, except for the cherries, oh and the pears, the wildlife generously share with us. I've completed a Permaculture Design Certificate from Crystal Waters in Queensland and the Go Organics Certificate in Nelson and am a Trustee of The Land Trust NZ. I'm passionate about making it easy for kids and families to grow and share fresh nutritious food and being as healthy as they can be.

My job is Manager of Clean Energy at Nelson Environment Centre where I also help with the garden and work on the wider issue of food security."

Kids Edible Gardens is funded by Nelson City Council, Bowater Motor Group and participating schools.

Contact Carolyn at Nelson Environment Centre: 03 545 9176 or

email: carolynhughes@nec.org.nz

Carolyn Hughes, new Coordinator for NEC's Kids Edible Gardens programme is passionate about gardening!







The Solar Schools Programme

Is run by the Nelson Environment Centre. We are able to offer free teacher workshops around solar, energy efficiency and other types of clean

energy. Included in the workshop is: Energy overview: Definitions, fact sheet and learning opportunities. How Energy fits into the NZ Curriculum.

Curriculum plans and suggested activities. Case studies (We have recently supported Ngatimoti and Henley schools on their energy education inquiries.)

Useful Resources, taster activities and the possible shape of the programme in your school.

Contact the Nelson Environment Centre: 03 545 9176 www.nec.org.nz or see www.nec.org.nz or see

We are now taking workshop bookings for 2015.



Hands-on teacher workshops.



Curriculum resources and support



The Garden to Table programme is coming to Nelson!

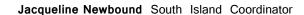
Victory Primary school, sponsored by Turners and Growers, is looking to implement the Garden to Table programme aimed at encouraging students to develop health eating choices. Building on its Kids Edible Gardens programme by using the established school vegetable gardens and organising a kitchen space Victory school are looking for students to prepare and share their produce with their peers, volunteers and teachers through meals the students have grown, harvested and created themselves.

Initially trial sessions will be run to look at all the wonderful challenges of setting up a garden and kitchen programme – where's the tap key, the hose is too short, there's not enough power points, what's garlic, which way up do you plant itbefore looking at building a syndicate wide programme involving whole class participation as well as involving volunteers from both within the school and larger community to work alongside the students.

The Garden to Table programme currently runs in Christchurch, Auckland and Wellington. The active hands-on gardening and cooking programme ensures cooking and gardening skills are taught using ordinary kitchen and garden equipment with experiences taken back into the classroom to enrich other learning. Students grow food and prepare simple delicious, nutritious food and are encouraged to try new foods, textures, flavours to provide them with the knowledge they need to make informed eating choices. Students also take responsibility and cooperate together to clean up! Enjoying food around a shared table is one of life's real pleasures and by

emphasising fresh, healthy foods and the joy of sharing its hoped it goes some way to generation surrounded by fast food and even faster technology.

If your school would like to be part of the Garden to Table network in Nelson or you would like to get involved with what's happening at Victory school have a look at the website www.gardentotable.org.nz or feel free to contact me Jacqueline Newbound at jacqueline@gardentotable.org.nz





Nelson Provincial Museum News

Get along to Nelson Provincial Museum to see a Pandemonium of Parrots (Terms 1 & 2) or drop in to the Tasman District Library (Queen Street, Richmond) during March to see Starting with Plants.



This exhibition aims to grow interest and awareness of these birds by informing and entertaining Nelson school students at the public.

Kakapo, Kea, Kaka and Kakariki were all present in our region before much of their habitat was destroyed and predators were introduced. We still have Kea, Kaka and Kakariki but they are in greatly reduced numbers. We are grateful for inpu from scientists Peter Gaze, Ron Moorehouse, Graeme Elliott, and Josh Kemp; Tamsin Orr-Walker of Kea Conservation Trand Kimberley Collins of Zealandia. We have a display of other native birds to complement this exhibition.



STARTING WITH PLANTS showcases some of the special qualities of plants. The plant world today contains the largest ϵ oldest organisms that have ever lived. The ways that plants have adapted to their environment are interesting and in som cases bizarre. There are many complex relationships between plants and animals and some of these can be seen on our doorstep such as at the Brook Waimarama Sanctuary. The role that plants play in the ecosystem is basic for understandir life on earth.

Nelson Provincial Museum, Corner of Hardy and Trafalgar St, Nelson



Provider Updates



Starting in Term 1, 2015 your class can take on the Virtual Great Walker competition and be in to **WIN** an ultimate experience on one of New Zealand's nine Great Walks.

New Zealand's Great Walks pass through some of this country's most special places. These tracks might be a long way from home, so what if you, and if your class, could 'imagine' being on a Great Walk? The Department of Conservation (DOC) and Air New Zealand have joined forces to bring the Great Walks directly to your classroom through the Virtual Great Walker competition.

By taking part, your class will be motivated to 'Get out & WALK. They'll also learn more about conservation in New Zealand, their natural environment and the nine Great Walks.

To help integrate the competition into the classroom, DOC is hosting a <u>LEARNZ</u> virtual field trip. Your class will be able to *experience* the famous Routeburn Track and LEARNZ will provide you with curriculum linked activities and ideas

There will also be a range of fun activities and online tools to support you in taking conservation into the classroom. Your class could WIN the grand prize – a tailor made Great Walks adventure for up to 40 people (including adult helpers). The prize includes flights provided by Air New Zealand and transfers and accommodation courtesy of DOC. Plus, your class will get to meet some real life DOC Rangers who will provide them with a hands on conservation learning experience in a real life nature setting. Runner up prizes include book or native tree vouchers for your school. Getting involved is as easy as 1, 2, 3!

- 1) Select a Great Walk (there are nine to choose from!)
- 2) Your kids 'Get out & WALK' and then;
- 3) They show us what they've learnt along the way.

Register your 2015 class and we'll send you a pack that includes some posters to help your kids track their virtual walking progress and some really cool stickers!

The Virtual Great Walker competition runs from 26 January to 2 April 2015 and you can register at any time.

To register your class and find out more visit: www.doc.govt.nz/virtualgreatwalker



Seaweek comprises a wide range of events, activities, opportunities, competitions and calls to action.

Check out www.seaweek.org.nz to make use of some

Seaweek 2015 competitions

We have a stack of fabulous prizes to give away during Seaweek 2015 so keep your eye on the website at www.seaweek.org.nz or our Facebook Page for news of how you can win!

Snippets

World Wetlands Day

The theme for 2015 is **Wetlands our Future**, and it's all about the fresh young faces involved in wetland conservation. World Wetlands Day is always February 2nd but this year until March 2nd, 15-24 year olds can upload wetland photos they have taken to the Ramsar World Wetlands Day http://www.worldwetlandsday.org/photo-contest website, and be in to win flights to visit a wetland anywhere in the world.

You can see the entries, and vote for your favourite photo, on the same website - check out the talent, and support our New Zealand entrants.



International Democratice Education Conference Nelson 2015



April 9–12: This 4–day open space is based around the experience of interactive learning. Register:

http://www.idec2015.org

Just not enough rain

The rain has not been enough to replenish our aquifers and soils so there are water restrictions in Tasman District. Water conservation is about being sensible and to think about how we can best use water every time we turn on a tap or hose. It also encourages us to think of alternate ways of gathering water for plants. Remember that our birds and insects appreciate being able to access water too.



NZ company turns old carpets into flash bikes!

http://www.theguardian.com/sustainable-business/2015/jan/23/carpet-bikes-recycling-difference

Earthlink Upcycles Uniforms

Pre-loved business clothing is being used to create an innovative and environmentally responsible new range of children's clothing in Lower Hutt http://earthlink-apparel.myshopify.com





"Healthy soils for a healthy life"

http://www.fao.org/soils-2015/en/

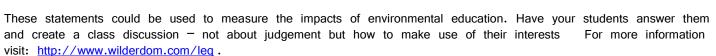
		Term One			
All February	Bikewise month	www.bikewise.co.nz			
28 Feb- 8 Mar	Seaweek - Look beneath the surface	www.seaweek.org.nz			
3 March	Children's Day – Treasure our children	www.childrensday.org.nz			
11 March	Moturoa Mission	Contact your Enviroschools facilitator			
23 March	World Water Day	www.waternz.org.nz www.biodiversity.govt.nz			
29 March	World Meteorological Day	http://about.metservice.com			
		Term Two			
22 April	Earth Day	www.teachervision.com (teacher resources – Earth Day)			
25 April	Save the Frogs	www.savethefrogs.com/day www.nzfrogs.org			
5 June	World Environment Day	www.nzscienceteacher.co.nz			
5 June	Arbor Day	www.arborday.org www.tfsnz.org.nz			
18 June	Matariki	www.mch.govt.nz/nz-identity/heritage/matariki			
		Term Three			
3-7 August	School's Peace Week	www.peace.net.nz/contents/school's-peace-week			
13-19 Sept	Keep NZ Beautiful Week	www.knzb.org.nz			
27 September	World Rivers Day	http://worldriversday.com/resources www.biodiversity.govt.nz/kids			
Term Four					
16 October	World Food Day	http://www.pbs.org/newshour/extra/2013/10/world-food-day-resources/			
20-26 October	Save Kiwi Week	www.kiwiforkiwi.org www.kcc.org.kz/kiwi			
1-8 November	Conservation Week	www.doc.govt.nz			
21 November	World Fisheries Day	http://resources4rethinking.ca/en/theme/fisheries-day http://www.hiwithekiwi.co.nz/resources			

Teacher Activities

Activity one: Yrs 8+ -10 self-evaluation statements for measuring "active environmental awareness",

This is the extent to which a person values and actively engages in understanding, preventing and solving environmental problems.

- 1. I think humans have the right to modify the natural environment to suit their needs.
- 2. I believe humans must live in harmony with nature in order to survive.
- 3. I think conserving natural resources is necessary.
- 4. I believe humans have a responsibility to solve environmental problems.
- 5. I have in-depth knowledge about the local environment and ecosystem.
- 6. I am actively concerned and engaged with improving my local ecosystem.
- 7. One of my main goals in life is to live close to nature.
- 8. I am constantly aware of the environmental impact of my behaviours.
- 9. I actively minimize my consumption of natural resources.
- 10. I could be happy without electricity.



Have students write other questions for the whole class to answer.

Also try - In 50 years I think the world will be

In 50 years I want the world to be

Activity two: Dirt for lunch

Description - Students track the food in their lunches back to the earth.

Objective – To illustrate that all our food comes from the earth and that healthy food depends on healthy soil.

Background Information – Many children do not understand that all of our food including animal products and processed foods originates from the earth's soil. Soil is made up of five components: sand, silt, clay, organic material, and soil organisms.

Different soil types have different proportions of these components. In general, Soils high in organic material house large numbers of soil organisms and are very fertile. Soil organisms are classified as decomposers since they eat dead organic material. Organic material is anything composed of or derived from living organisms. A tablespoon of healthy soil can contain many billions of bacteria and fungi.

Materials - Students' lunches, writing book.

Activity - In their books, have students list everything they are having for lunch.

- 1. Inform students that no matter what they have packed for lunch, ultimately they are eating dirt.
- 2. Challenge students to name a food in their lunches that did not come from dirt.
- 3. Help students figure out the ingredients in different foods and, as a class, trace each food's origin back to the earth.







Activity three: what if we all slept for 100 years?

A Rip van Winkle Proposal for the Restoration of Nature

When a weed appears from a crack in the concrete, many secretly celebrate. Imagine how after 100 years the streets would be bulging with cracks, plants emerging, animals grazing, the air, earth, and sea filled with non-human nature again. Imagine waking to the world – where "nature" had had a chance to be free and grow back. What would we see and feel on waking? Would we sense the possibilities of a life more in tune in nature or simply set about exploiting the earth's natural resources again?

Class visioning opportunity: Have your students imagine that doctors have developed a fool-proof 100-year sleeping pill for human beings and we all agreed to take the pill. We could meet together in an eon of silence, sleep 100 years, and awake to a world where nature had regained its foothold. As the years of slumber rolled by, new microbes move through the soil and the skies and waterways dissipate their toxins. Plants and trees would gather their forces. The sleeping quiet would gradually turns into a 100-year cacophony of birds, water, wind, trees, weather, and animals.

Mother Nature, whilst still wooing her dead, would begin to heal and grow. And I wonder, then, on waking, what would we do? Look for food, make a camp, and talk to our family and friends about what to do? Few would shirk the challenge. Starting in a world made afresh by time and nature appeals – we would all be secretly excited by such an adventure. But would we learn from the past and create ways of living more compatibly with nature?

Such an experiment is also frightening. In more than one science fiction scenario, plants come to dominate the world, e.g. The Triffids. To lose control of time and human



progress, we fear, could awaken something unthinkable? But in every crack in the pavement is the signature of nature, her claws of time gradually breaking the earth and structure apart. Glaciers grind. Rivers widen. Rocks fall from cliffs. And the microbes seethe with the potentials of life. The most basic elements for life, amazingly, still exist on earth in great abundance.



Humans, ultimately, are surviving, and so are some compatible forms of life surviving along with us. But our job of survival will only work in the long-run to the extent that we align ourselves with nature. If we let the forces of nature into our lives, nature joins in. If we could switch our madness off for 100 years, we could wake to a world more equitably shared with nature.

What do students think the world would be like in 100 years? What would we do? Its a far more challenging story to write than 'what I did in my holidays'.