

EcoBuzz

EcoBuzz Edition 49

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Term 1 2013



Hampden Street School students present their hydro power station

Kia ora tatou,

We hope you are happy to be back in the classroom and reading EcoBuzz again. 2013 – it's definitely here. Maybe that long dead Mayan did just run out of rock to carve the calendar hieroglyphics after all. Unfortunately, the possible list of global and local disasters is still scarily long and it is easy to feel disempowered about how to cope or improve things, and easy to switch off and be disinterested.

How do we empower ourselves to 'get out of the woods'? How can we make a difference and cope with all that is required of us, yet not dump a bundle of dreadful problems on our students? Some suggestions are: show the wonderful positive forms of abundance around us; create opportunities for your class to experience joy in the natural world; keep it local; keep it solutions focused; let your class learn the skills required (with support) rather than offer solutions for them. When students put in the effort they can experience both the disappointments and successes, both of which provide useful lifelong learning.

The website www.TED.com has many inspiring topics and speakers and now there is a new section with lessons attached to videos. You can 'flip' the videos too; rename, write your own questions and add your own information so it is appropriate for your class. It's all well worth checking out.

Thanks Jo, Lindsey, Helen, Rob, Adie and Claire



I failed my way to success.
Thomas Edison

Every failure brings with it the seed of an
equivalent success.
Napoleon Hill

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Snippet from Nelson City Council: **NELSON 2060**

“We’re delighted to announce that the draft Nelson 2060 strategy is hot off the press and available online at <http://www.nelsoncitycouncil.co.nz/framing-our-future-towards-nelson-2060/> in a handy flip book format, or it can be downloaded as a pdf.

We would really like to know what you think – there are instructions on the webpage for responding by email or a handy form for registering online comments”

Council Draft Annual Plans

Tasman District Council’s Draft Annual Plan is available is 20 March to 22 April and Nelson City Council’s 25 March to 26 April.

You can support your Council in assisting them to prioritise the initiatives and services they deliver to meet the needs of their communities, through the submission process. See the Council websites.



WALK TO SCHOOL EVERY WEEK
IA WIKI HIKOI KI TE KURA

Congratulations to

Enner Glynn School who have
19 students taking part in
walking school buses!

WALK to WORK DAY

March 13th

Leave your car at home and walk all or part of the way to work on Wednesday 13 March. More information can be found on the Walk to Work website:

<http://www.livingstreets.org.nz/walk2work>



Local Seaweek events for school children

At Port Nelson: March 4 - 8

At Motueka Sea pool: March 5

NZ Dune Restoration Trust Conference at Tahunanui: March 5 - 7

Community Guided Snorkel Day at Cable Bay: March 10

For more information contact Rob Francis, 03 5438484 and rob.francis@tasman.govt.nz

Seaweek takes place from 2-10 March.

The Theme for 2013 is

"Toiora te Moana, Toiora te Tangata = Healthy Seas, Healthy People."

Seaweek is the only nationwide event dedicated to learning from the sea and developing a better understanding of what sustainability might mean in the marine world.



Scallops in Tasman Bay? Still a topic for discussion

This expanse of sea towards Rabbit Island looks appealing doesn't it? However, look below and you may find areas of Tasman Bay's sea floor above 25m, and now Golden Bay, are coated with a thick layer of murk that makes it impossible for scallops to survive. Bill Moore wrote in the Nelson Mail (29/9/12) about this issue. His report from Cawthron Institute's coastal and marine scientist Paul Gillespie's research into scallops, revealed that both bays are in the grip of a natural process of change and that man's activities have accelerated the deterioration.

Scallops are filter-feeders and like to partially bury themselves on a firm sand or mud bottom and eat what is found in that bottom layer of water. If their preferred habitat is full of suspended sediment, they die.

Discovered by commercial fishermen in 1959, the Tasman Bay scallop beds were exploited to collapse. In 1975, around 250 boats were dredging, some of them working around the clock. There's now been no commercial harvest in Tasman Bay since 2005 and last year, for the first time, Golden Bay was also almost entirely ruled out.

Moore reported Paul as saying, "Initially, while we may have had ideal seabed habitats for scallops, that's changed over time," A century of bottom trawling and dredging has flattened the three-dimensional structure of the seabed, making it more liable to the movement and suspension of fine material. Without those fishing methods, living reefs of horse mussels and greenshell mussels with other organisms growing on them could have provided a barrier to this "tidal re-suspension" of sediment which he believes is a greater problem than irregular floods.

Debates continue about the cause of the scallop decline, with chemical pollution and nutrient loading from the land, the effects of flooding and heavy rain, dredging and shifting weather patterns as possibilities. While further scientific investigation takes place, there is agreement that there are probably many factors working in combination to make conditions unsuitable for scallops to flourish in Tasman and Golden Bays, at present.

What questions arise from this article? Does this information support the stories from parents and grandparents about their experiences with scallops?



Regional Enviroschools



Enviroschools Celebration

Congratulations to **Nayland Kindergarten** who confirmed in December last year that they have attained the level of a Bronze Enviroschool.

Ka Pail



Regional Youth Environmental Action Hui



On a recent sunny Saturday, 25 young people from the region's secondary schools gathered at Whenua Iti Outdoors to inspire each other and plan some action projects to improve environmental outcomes at their schools. Students from Nelson College, Nelson College for Girls, Nayland College, Waimea College, Motueka High School, Golden Bay High School and Collingwood Area School were present

"We were very impressed with the commitment, energy and creativity of these young people and we are looking forward to seeing their projects come to fruition" said Jo Martin, Environmental Education Adviser at Nelson city Council.

One of the action projects being planned is to weed and plant a neglected part of school property with natives to develop habitat for native invertebrates and vertebrates. Another idea was to set up a clothing bin and thrift shop at school to encourage students to recycle and reuse clothing to reduce waste to landfill. Other ideas were around making the best possible use of resources at school, conservation, connecting students to their environment and supporting community resilience. The students plan to meet again in Term 2. The Hui was organised by Nelson City Council, Tasman District Council and Nelson Environment Centre, with funding from the Enviroschools Foundation.

A statue of a white buffalo!

How is that part of our education for sustainability programme?



Harakeke Preschool has educating for sustainability (EfS) as their ongoing focus and asked this question. The white buffalo offers something positive in each of the social, environmental, cultural and community outcomes. The Enviroschools Kit describes some key concepts of EfS that can help us understand what it can encompass. These concepts are:

- Everything is connected – inter-relatedness, Whanaungatanga and Whakapapa
- Natural systems sustain life in a dynamic balance.
- We have a past and a future – our choices and actions make a difference.
- Kaitiakitanga is respecting all that is around us.
- We are part of a community. There are communities all around us.
- Sustainable designs harmonise with nature.

The artist, Maaka Tipa, is a parent of children who had attended Harakeke. He is tangata whenua, while his wife is American, and before they moved to the USA he made this gift of thanks from his whānau. Gifts hold reciprocity and reciprocity offers balance. It was made over three weeks with the sort of love and care we want to promote in our world. It is a stunning work of art that sits well with the tepee, also an integral part of the play space there, and is robust for playing on for a long time to come. It is in harmony with the environment and is now a connected part of the Harakeke Preschool community. It was easy to hear how the white buffalo makes a contribution to a healthy, peaceful and sustainable environment then it is part of their education for sustainability programme.

These are some of the ways your Enviroschools Facilitator can lend a hand

| 4 Key Areas | Help at the planning stage is best use of yours and facilitator's time |
|---------------------------------|---|
| People and Participation | Grant/funding applications; liaison with Council expertise; links with outside agencies, NGOs, LEOTC, DoC and community issues, events, projects Support for ES key teacher and all staff, class projects support with school/community, national and global celebrations |
| Place | Support Edible garden; native garden design; planting for biodiversity; conservation of water and rainwater collection; composting and worm farms; sustainable buildings; energy efficiency ideas – solar, wind; kaitiakitanga of a nearby area, waterway, beach or wetland |
| Programmes | Envirogroup support; sustainability avenues for inquiry units; resource suggestions; professional development for staff around action planning; Maori perspective links; interpreting Council Annual Plan and Submission writing |
| Practices | Waste audits; Waste minimisation; Walking School Bus; Planning sustainable community events e.g. school fairs/productions/celebrations; Use of fair trade/ecofriendly resources; Waterways protection |



Happy New Year!

Will 2013 be the year your school goes zero waste?

Our Waste Education Services (WES) for schools programme is free to all Nelson schools and early childhood centres (ECEs) thanks to Nelson City Council funding, so we are poised and ready to help you:

- teach your students to value resources and think of a future beyond waste
- measure the waste your school is producing
- design and set up school-wide systems to minimise waste
- take the next steps in your journey towards zero waste
- make your fundraising event zero waste
- create a school/ECE-wide policy to reduce waste.

We can deliver workshops for students, teachers, parents and caretakers in

- avoiding waste
- zero-waste lunches
- packaging/smart shopping
- composting, worm farming, E.M. bokashi

We can adapt our programme to suit your needs, so please contact us for bookings.

The June 27/28 Waste expo - A date for your diary

Last year's Hyperwaste Art Expo was enormous fun. This year we will be staging another midwinter waste event and invite you to join in! The date will be Thurs/Fri 27/28 June. The idea is embryonic at this stage and WE WELCOME YOUR IDEAS.

Suggestions so far include:

- an art/technology expo, whereby students create something from waste that will be useful and have a longer life
- a buy-sell-swap/ethical packaging/zerowaste/Fairtrade event
- an expo "all about waste"
- a climate change expo

What event would inspire your students to take part?

For bookings: contact

Sarah Langi

Waste Education Services schools facilitator

Nelson Environment Centre

sarahlangi@nec.org.nz

Energy in Schools programme

The three primary schools on the pilot Energy in Schools programme: Victory, Hampden Street and Auckland Point, are learning heaps about energy and saving energy costs. Once the pilot is completed (in March 2013, we hope to secure funding to roll out the programme to interested primary and secondary schools across the region.

For more information and to register interest in joining the 2013 programme, visit the Nelson Environment Centre website: www.nec.org.nz/schools or contact Sarah Langi.

Sarah Langi, Programme Coordinator
Email: sarahlangi@nec.org.nz



Aaryn Barlow, Technical and Behaviour Change Officer
Email: aarynbarlow@nec.org.nz



Lindsey Fish, Nelson City Council's Enviroschools Facilitator
Email: lindseyfish@nec.org.nz



Senior students at Hampden Street School find out about renewable energy

In the week before Christmas, Yr6 students at Hampden Street School proudly presented their renewable energy projects. There were models of geothermal power stations fuelled by boiling jugs, solar-powered houses with lights blazing, yummy "s'mores bars" cooked on a solar cooker, animations, energy board games, PowerPoint's, videos and brochures. One class even cleaned out the local stream to test their waterwheel and then were a bit phased when another class dammed the stream to investigate hydropower. The teachers said that the students really had to come to grips with a real-life situation and look at things from all sides as they developed their projects.

These creative students have been beavering away on renewable energy as part of the pilot Energy in Schools programme, in partnership with Enviroschools. Under this programme, the whole school got involved, and younger students enjoyed cooking pancakes on the solar oven during their visit to Nelson Environment Centre.

To find out more about the Energy in Schools Programme, contact: Sarah.



Geothermal energy: making the steam from the earth to generate the electricity...

...and sending the electricity along the transmission lines!

Small Planet

Small Planet is a programme designed to support early childhood education centres (ECEs) to engage their students in learning about their natural environment. The programme is funded by NCC and is free to all ECEs in Nelson.

To join the programme, and arrange a visit, contact:

Sarah Langi, Small Planet facilitator
sarahlangi@nec.org.nz

The ARTBox exchange at Nelson Environment Centre will open again on 20 Feb at 3.30–4.30pm and continue on the third Wednesday of each month. To join, there is a yearly fee of \$15 per centre.

Small Planet members have indicated that you would welcome more frequent cluster meetings, e.g. 3 per year, and would like to incorporate into these meetings some hands-on learning and making things from waste materials.

So far, suggestions for these cluster meetings are:

- Connecting students with their environment
- Worms – activities to make the most of your worm farms, making mini worm farms, etc.
- Making items using waste materials – bird feeders, solar cookers, recycled paper, etc.
- Upcycling using Art Box materials: vinyl record bowls, cushions from blankets, etc.
- What to do with food scraps: keeping chickens, bird feeders, worms, bokashi, compost, etc.
- Tours of other ECE centres
- Natural dyes.

Please let me know which of these suggestions would suit you best and I will choose the 3 most popular.

Snippets



This resource provides an exciting and comprehensive tool for teachers and students that not only celebrates the remarkable animals of the Ross Sea, Antarctica, but also explores the business, politics and values that affect this precious and important part of the world. Designed for teachers at New Zealand schools and targeting Years 7 – 10, the curriculum-based resource can be adapted for other age groups where students are invited to explore with the inquiry method.

Water for Prosperity is a registered charity set up by two Nelsonians to help communities install bores to source their own clean water. The current project is based in Africa.

On Sunday 24 March 2013 participants are asked to find sponsors and walk, run or bike a 15km journey from the Richmond ASB Aquatic Centre to Rabbit Island. Spot prizes, a BBQ at Rabbit Island and free return transport with Nelson Coachlines on the Double Decker Bus back to the ASB Aquatic Centre.

The event starts at 9am on Sunday and is likely to take three hours for walkers, one and a half hours for runners and one hour each way for cyclists. Toilets will be provided along the way. Please visit the [website www.waterforprosperity.org](http://www.waterforprosperity.org) for further information.

Waimaori Freshwater Programme

The Nelson/Tasman region with its beautiful beaches and out-look, is nevertheless an altered, built-up urban region, with high industry/land-use surroundings.

Ministry for the Environments latest reports on recreational water quality in New Zealand (October 2012) indicate the recent and rapid decline in our water quality.



Even locally, there are three freshwater swimming spots in the Nelson/Tasman region which should be avoided. It is an enormous shame that we cannot honestly boast of the pristine swimming areas right where we live, when we know it has not always been this way.

The Waimaori Programme

An inquiry style approach incorporating holistic tradition, while measuring physical factors in the freshwater environment is what the Waimaori programme offers. From one or two practical sessions, both in class and in-stream, students/volunteers will gain knowledge from hands-on experiences about freshwater aquatic life and become aware of impacts to make an informed approach for stream management and care. The WM programme caters to all school ages and promotes knowledge for positive actions:

- ☉ Pointing out bigger issues impacting freshwater quality
- ☉ Offer tips for changes we can all incorporate to improve water quality (e.g. home drainage, car-wash on lawn, disposal of contaminants)

Where the issues are an accumulated result of long-term big industry and seem too difficult for individuals to tackle, it may be more appropriate to:

- ☉ Write letters, make phone-calls, attend local council meetings
- ☉ Send in submissions, start petitions
- ☉ Form a volunteer group, to monitor and carry out restoration efforts
- ☉ Create art-work, media to convey message

Toxic algae in NZ rivers and streams - Cyanobacteria

Cyanobacteria is a natural blue-green algae that has increased in NZ waterways due to a number of changes impacting the natural ecology:

- ☉ Low flows – hydro-damming, flood restriction
- ☉ Removal of shade vegetation (blocks sunlight that contributes to over-growth, and warming)
- ☉ Faecal inputs (nutrient enrichment)

Whakatauki (Maori proverb)

Naku te rourou, nau te rourou, ka ora ai te iwi

With your basket and my basket the people will live on and thrive
(Referring to co-operation and the combination of resources to get ahead)

| Website | Provides |
|---|--|
| http://www.biodiversity.govt.nz/kids/ | “Up the Creek” – cartoon graphic, multi-choice answer options to inquiry |
| http://www.doc.govt.nz/getting-involved/for-teachers/ | |
| http://www.learnz.org.nz/index.php | |
| http://www.nhc.net.nz/index/fresh-water-fish-new-zealand/freshwater-fish.htm | Natural heritage collection – images |
| http://www.youtube.com/watch?v=_RKZ2ny7ydo&feature=player_embedded#! | Lake Rotoiti eels |
| http://www.youtube.com/watch?v=0H6TKdj4OHk&feature=player_embedded | Campbell live clip re: whitebait threats, 4 mins 45 secs (2008) |
| http://www.treasuresofthesea.org.nz/dolphins-and-porpoises | Highly detailed facts about all marine taonga |

Hira Students Add Value to Stream Monitoring

Hira school EnviroSchool students are participating with a nationwide research programme organised by Annabelle Coates, MSc student from University of Canterbury.

Part of the research involved interviewing Hira school Room 4 students during one of their stream monitoring sessions, to enquire what information was being collected and what was it telling them. Annabelle's project is investigating what stream monitoring protocols are being used nationwide. The study will also compare the results from community/school group stream care projects with Council State of the Environment river ecology monitoring. Whilst the study may recommend ways of improving consistency in monitoring and reporting, it is more about recognising the importance and contribution of school and community environmental projects and adding value. A link to the study results will be posted in Ecobuzz.



Hira school EnviroSchool Senior teacher Jane Pearson is one of the cofounders of the Wakapuaka River Care group, since 1999. Collectively the group has produced a booklet, *The Wakapuaka River*, which was distributed to all local households and is still available from Hira School.

As well as having their own stream site to monitor, the school runs a tree nursery, and every year young native trees are made available to people living in the area and, in time, this will contribute to a more forested catchment.

Photo caption: Hira students measure the length of a native fish found in their river.



What is Earth Hour?

Earth Hour is an international event organised by the World Wildlife Fund (WWF), which encourages people to turn off their lights between 8.30–9.30pm on the 23rd of March each year to raise awareness about climate change.

What is the Earth Hour Big Dessert Night?

In 2013, Earth Hour and Neighbours Day Aoteroa both fall on the same date (23rd March) providing an opportunity for neighbourhood or community groups to get together over a dessert night by candlelight to mark Earth Hour as part of wider Neighbours Day celebrations.

Is this something your students could organise at your school?

Calendar

| Term1 | Local and National Events | Other information and Contact |
|---------------|--|--|
| 2-10 March | Seaweek NZ Association for Environmental Education, Seaweek focuses on learning from the sea. It's about exciting and inspiring all New Zealanders to renew their connections with the sea. Seaweek comprises a wide range of events, activities, opportunities, competitions and calls to action | Schedule of workshops for schools at Port Nelson based on biosecurity and pollution in our oceans. http://www.seaweek.org.nz Sterling Cathman - Sterling@mrs-science.co.nz |
| 20 March | Small Planet Workshop Natural Dyes workshop 3:30 – 5pm at Nelson Environment Centre for Early Childhood teachers | Must register with Sarah Langi - SarahLangi@nec.org.nz |
| 21 March | Nelson Schools Coffee and Kit session Teachers networking 3:30 – 5pm Venue TBC Tasman Schools Green Cuppa Teachers networking 3:30 – 5pm Venue TBC | Lindsey Fish - Lindseyfish@xtra.co.nz Adie Leng - Adie.Leng@tasman.govt.nz |
| 22 March | World Water Day International World Water Day is held annually on 22 March as a means of focusing attention on the importance of freshwater | http://www.unwater.org/watercooperation2013 Advocating for the sustainable management of freshwater resources |
| 23 March | Earth Hour Saturday 23rd March, 8.30–9.30pm Suggested activity: host an Earth hour neighbourhood dessert night! | For more information check: http://www.earthhour.org/page/get-involved Sarah Langi - SarahLangi@nec.org.nz |
| 13-21 April | Heritage week - Nelson City Council This year we celebrate Nelson's rich and varied harvest | http://www.nelsoncitycouncil.co.nz/heritage-week-2013/ Debbie Daniell-Smith - Debbie.Daniell-Smith@ncc.govt.nz |
| 15 April | Kumara Growing Activity At Elma Turner Library: Activity based around the Te Kumara DVD and book produced in association with Enviroschools | Cindy Batt - Cindy.Batt@ncc.govt.nz |
| 19 April | Ecobuzz deadline Please send Claire contributions, stories, photos around school actions in required format | Claire Webster- Claire.Webster@tasman.govt.nz |
| Term 2 | | |
| 7 – 11 May | Up-cycling Workshops Workshops and competition for August Ecofest display celebration | Adie Leng - Adie.Leng@tasman.govt.nz Claire Webster- Claire.Webster@tasman.govt.nz |
| 11 May | Neighbourhood Ecofest at Victory Community Centre | Jo Reilly - Ecofest@xtra.co.nz |
| 20-24th May | NZ Primary Science week Schedule of workshops and events based on the science of solar power | Sterling Cathman - Sterling@mrs-science.co.nz |
| 5th June | World Environment Day The theme for this year is <i>Think. Eat. Save</i> – campaigning to reduce food waste and food loss | http://www.unep.org/wed/ |
| 5th June | Arbor Day Arbor Day marks the beginning of the planting season and a time to celebrate the unique biodiversity of our country | http://www.doc.govt.nz/getting-involved/events-and-awards/other-national-events/arbor-day/ |

Calendar

| | | |
|-------------------------|---|---|
| 8th June | World Oceans Day Details TBC | http://www.un.org/depts/los/reference_files/worldoceansday.htm |
| 9th June | Matariki Celebration Events TBC, will include Mara kai Kumara activity | www.mch.govt.nz/nz-identity-heritage/matariki Melissa Savage – Melissa.Savage@tasman.govt.nz |
| 10 June – 6 Sept | School Tree Planting Programmes – Nelson and Tasman | Jo Martin – Jo.Martin@ncc.govt.nz Kathy Tohill–Curnow – Kathy.Tohill-Curnow@tasman.govt.nz |
| 28 June | Hyperwaste Exhibition Using waste items for something really useful. Organised by Waste Education Services at Nelson Environment Centre | http://www.wes.org.nz/ Sarah Langi - SarahLangi@nec.org.nz |
| 1 – 7 July | Te Wiki o Te Reo Māori Te Taura Whiri i te Reo Māori (The Māori Language Commission) have chosen “Ngā Ingoa Māori” (Māori names) as the theme for Māori Language Week 2013 | Events TBC www.koreromaori.co.nz |
| 12 July | Ecobuzz deadline Please send Claire contributions, stories, photos around school actions | Claire Webster – Claire.Webster@tasman.govt.nz |
| Term 3 | | |
| 7 August | Teacher professional development workshop 1.30–4.30pm Term 3 TOTSEE primary teachers workshop: All you ever wanted to know about dealing with human digested waste! | John Campbell education@museumnp.org.nz |
| 17-18 August | Ecofest at the Trafalgar Centre Opportunities for school students for Ecofest: 1. Alternative powered car competition 2. Funky Fashion Show (years 9–13) 3. Op Shop Challenge. | http://www.ecofestnelsontasman.co.nz/ Jo Reilly – Ecofest@xtra.co.nz |
| 8 – 14 Sept | Conservation Week Conservation Week activities are coordinated by the Department of Conservation and have been celebrated since 1969 | www.doc.govt.nz www.conservationweek.org.nz Check out events! Maria Deutsch – mdeutsch@doc.govt.nz |
| 15 – 21 Sept | Keep New Zealand Beautiful week A week of activities across the country to clean up New Zealand, coordinated by Keep New Zealand Beautiful | www.knzb.org.nz |
| 23-28 Sept | Cawthron Science and Technology fair For primary and secondary school students in 2013 | http://cawthronsciencefair.org.nz/ Jo Thompson – Jo.Thompson@cawthron.org.nz |
| 27Sept | Ecobuzz deadline | Claire Webster – Claire.Webster@tasman.govt.nz |

| | | |
|------------------|--|--|
| Term 4 | | |
| 4-10 Oct | World Space Week | www.worldspaceweek.org |
| 7 Oct | World Habitat Day The United Nations has designated the first Monday of October every year as World Habitat Day | www.unhabitat.org |
| 9 Oct | Disaster Reduction Day The United Nations' (UN) International Day for Natural Disaster Reduction encourages people and governments to participate in building more resilient communities and nations | www.whatstheplanstan.govt.nz |
| 16 Oct | World Food Day The day is observed in honour of the date of the founding of the Food and Agriculture Organisation of the United Nations in 1945 | www.fao.org |
| 23 Oct | Teacher professional development workshop Coastal Education - 1.30-4.30pm Term 4 TOTSEE event | Focus on estuarine education - monitoring; siltation; ornithology; native fish life cycle - whitebait. Megan Wilson - meganw@parklands.school.nz |
| 26-28 Oct | Cawthron Science Festival Victory Community Centre | Jo Thompson - Jo.Thompson@cawthron.org.nz |
| 21 Nov | World Fisheries Day World Fisheries day is celebrated every year on November 21 throughout the world by the fisherfolk communities | www.seafood.co.nz |
| 10 Dec | Human Rights Day The United Nations' (UN) Human Rights Day is to mark the anniversary of the presentation of the Universal Declaration of Human Rights | www.hrc.co.nz |
| 11 Dec | International Mountain Day The United Nations' (UN) International Mountain Day is to help raise awareness of the people who live in mountainous regions and the role that these regions play in providing food, water, and recreation. | www.timeanddate.com |

Monarch Butterfly Conference

Auckland 16 and 17 March 2013. Practical ideas to assist with butterfly garden design and habitat planting for New Zealand's butterflies and moths, as well as projects to enhance the understanding of metamorphosis and ecology and biodiversity in schools. The draft programme, conference poster and registration form are now available. Also, check out: the Butterflies resource on Science Learning Hub; Te Ara The Encyclopaedia of New Zealand - Butterflies and Moths and the School Journals.

<http://www.monarch.org.nz/monarch/projects/conference-2013/>
<http://www.teara.govt.nz/en/butterflies-and-moths>

Check out Science Learning Hub - Butterflies

<http://www.sciencelearn.org.nz/Science-Stories/Butterflies>



Join the National Butterfly tagging project in March.

Teach young children about recycling

Activity one

From: http://www.kindergarten-lessons.com/recycling_for_kids.html

Each day the children classify the garbage from their lunch or snack into the following three containers:

- a plastic ice cream bucket with a lid for the compost
- a photocopy paper box lid for items that go in the garbage
- a photocopy paper box lid for items that can be recycled.

The size of the photocopy paper box lid allows the items to be spread out for easy counting.

Keep it Simple

To keep recycling for kids simple, have the special helper weigh the compost (with help) and then point to each piece of recycling and garbage in the lids as the whole class counts along.

The same student records the observations on a chart similar to the sample on the right.

The teacher records the date as the students suggest letters and assists the student when necessary.

Do not worry too much about accuracy when weighing the compost. Use a spring scale and record to the closest one hundred grams. I also ignored the weight of the bucket.

The children benefited from the extra practice counting the recycling and garbage items and recording or watching the numbers be recorded under the correct pictures on the chart.

Each day use the chart as a teaching tool, reinforcing the children's knowledge of numbers, letters and letter sounds. In the school I worked at, an older student picked up the compost after lunch, the recycling went into the blue box and the garbage into the wastebasket.

Next, have the students record their classroom activities.

| Date |  Compost |  Recycle |  Garbage |
|---------|--|--|--|
| March 3 | 1200 grams | 12 things | 5 things |
| March 4 | 900 grams | 11 things | 4 things |
| March 5 | 1400 grams | 18 things | 6 things |
| March 6 | 800 grams | 13 things | 7 things |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



Activity Two Drink Carton Upcycling



Follow this eco-friendly craft design to up-cycle an empty drink carton into a colourful gift box.

Use to package homemade gifts of cookies or other snacks.

You can even use these cartons as growing kit gifts, with soil and a seed packet.

Materials:

- Drink/Juice Carton
- Scissors
- Hobby Knife with Safety Cap
- Aluminium Ruler
- Paper Edger Scissors (optional)

Instructions:

1. Rinse out the empty juice carton. Cut off the very top part of the carton using scissors. You can begin the cut with the Hobby Knife. Dry the interior of the carton with a dishtowel.
2. Measure and mark 3.75" up on all 4 corners. Use the scissors to cut down all four corners stopping at the marks. Use the aluminium ruler and hobby knife to score a straight line connecting all four marks. You will be left with a cube shaped box with 4 square flaps. Fold the four flaps inward bending along the scored line.
3. Now for the handles... Run a horizontal score line halfway across two opposing flaps. Cut the handle out of the top half of the flaps using the Blooms™ Titanium Hobby Knife and fold the handles upward along the scored line. Then cut off the excess carton around the handles. Feel free to use your imagination to cut different shaped handles to suit your preference.
4. Use the hobby knife to cut vertical slots in each of the 2 remaining flaps for the handles to pass through. Then round the corners using scissors. Run the handles through the slots and you're done!
5. Additional Design Options: You can leave the plain carton undecorated, or you may cover it with paper, fabric and additional embellishments. You can even further customize your gift box handles and flap edges using Paper Edger Scissors.

Activity two **Make Your Own Fertilizers**

Learn how to make your own fertilizer, and keep your garden green without spending a lot. Here are several great homemade fertilizer recipes to try:

1. Epsom Salt Fertilizer

Use in Place of: Houseplant food Vegetable fertilizer Rose plant food

- What You Need:

- 1 Tablespoon Epsom Salt
- 1 gallon water
- A watering can

- What You Do:
 1. Combine the Epsom salt and water.
 2. Use the solution to water your plants.
 3. Repeat once a month.

- Why This Works:

Epsom salt is made up of magnesium and sulfate – both vital plant nutrients. Some magnesium-loving plants to try it on: houseplants, feijoas, roses, peppers, tomatoes and potatoes.



2. Coffee Ground Fertilizer

Use in Place of: Rose plant food

- What You Need:

- Used coffee grounds
- A cookie Sheet
- Newspaper

- What You Do:
 1. Line a cookie sheet with newspaper.
 2. Then, spread your used coffee grounds out on the sheet, and allow them to dry completely.
 3. Sprinkle the grounds around the base of your acid-loving plants.

Azaleas, roses, rhododendrons and blueberries are just some of the plants that will benefit from this treatment.

Note: Be careful not to over do it with the grounds. Even acid-loving plants can get too much acid.

- Why This Works:

Coffee grounds are rich in nitrogen, magnesium, and potassium – all important plant nutrients. They are also acidic, and help to maintain the acidity of the soil.



Egg Shell Fertilizer

Use in Place of: Lime

- What You Need: Egg Shells A blender

- What You Do:
 1. Save your eggs shells, and allow them to air dry.
 2. Then, place the dried shells in the blender, and
 3. Pulse until they are powdery-fine.
 4. Sprinkle in your garden.

- Why This Works:

Eggs shells are made up almost entirely of calcium carbonate – the main ingredient in agricultural lime.



Vinegar Fertilizer

Use in Place of: Houseplant fertilizer Rose plant food

- What You Need:
 - 1 Tablespoon white vinegar
 - 1 gallon water
 - A watering can
- What You Do:
 1. Combine the white vinegar and water.
 2. Use the solution to water your plants.
 3. Repeat every three months.
- Why This Works:

The acetic acid in vinegar works to increase the acidity of the soil – just the thing for acid-loving plants.



Fish Tank Water Fertilizer

Use in Place of: Any fertilizer

- What You Need: Used fish tank water
- What You Do:
 1. Save the dirty water from your fish tank. Then, use it to water your plants.
- Why This Works: Used fish tank water is full of nitrogen and other nutrients that plants need to thrive.



Fireplace Ash Fertilizer

Use in Place of: Garden fertilizer, Lime

- What You Need: Fireplace ash
- What You Do:
 1. Sprinkle your fireplace ash over your garden beds, and work into the soil.



Note: Fireplace ash should not be used if your soil is alkaline, or be used around acid-loving plants.

Why This Works: Fireplace ash is rich in potassium and calcium carbonate.

Natural Weed Killer - Vinegar as Weed Killer (Erin Huffstetler)

Instead of fighting weeds in your yard with loads of chemicals, try this:

How to Kill Weeds with Vinegar

- What You Do:

Spray or pour white vinegar directly onto the weeds. Then, continue about your day. Those plants you don't want (weeds) should be dead in a matter of hours.

- Why This Works

The acetic acid in the vinegar does two things: it burns the weed's foliage on contact and it temporarily lowers the pH of the soil, making it harder for the weed to make a comeback.

- Benefits of Killing Weeds with Vinegar: inexpensive; non-toxic in small amounts; fast-acting; doesn't do long-term damage to the soil
- Tips and Warnings:
 - 1) For best results, use on a sunny, dry day.
 - 2) Vinegar will kill any vegetation that it comes into contact with, so avoid using it around plants you wish to keep
 - 3) A teaspoon of dish soap can be added to the vinegar to help it stick to the weeds
 - 4) Some weeds are persistent, and may need to be treated more than once.

Always feed the soil to maintain the health of the plants you want as that will help reduce the weeds too.

Funding opportunities

Before you apply for funding... check how much the children/students have been part of the process. A recommendation is to use the action learning cycle as the best support process.

Here is an example: wanting funding to deal with food waste

Funders now want to know what the process you have used with children/students to decide that e.g. a worm farm is the best option:

- Your group/class/school has studied recycling in nature and packaging and understands all of the reasons why there is waste. They have then audited the waste you produce. You have developed a shared goal: To deal with food waste efficiently.
- You and your students have explored all of the options of dealing with any food waste – reducing waste, bokashi, compost, neighbours pigs, teachers or your own chooks, worms etc. You have also had fun designing and making your own worm farms and it works better than the other options for dealing with your food waste and needs, in your climate, context etc.
- The shared decision is made. In this case, to purchase a worm farm that sits in the classroom, rather than have a student made one outside and other options.
- Funding application is made.

Promoting sustainability is following a process that appreciates what you have before deciding on what you might change and understanding why. Our future needs us to move away from consumer thinking which identifies an issue, without looking at why there is that issue, and heads straight into the one solution. Usually this is adult led and encourages the expectation of instant results. This solution usually requires lots of money and relies on already known external options. By exploring options before deciding on the action, you may find you already have the resources available locally, or there may be a range of actions that would work better than just one.

Check out this website www.fis.org.nz for further information on funding and for more funding options.

Funding Opportunities (listed in the month that they close):

March

Project Crimson Trust <http://www.projectcrimson.org.nz/funding/page.aspx> (Rata is the local tree not Pohutakawa)

NZ Glass Environmental Fund <http://www.recycleglass.co.nz/fund.htm> (O-I NZ)

Fonterra Grass Roots Fund <http://www.fonterra.com/global/en/Sustainability/Community/Grassroots+Fund>

April

Environmental Education Action Fund

http://www.wwf.org.nz/what_we_do/community_funding/funding_for_schools/ closing date is Tuesday 2 April. It's a contestable fund open to all NZ schools, ECEs and community groups, who as part of their learning programmes, are taking action to address a local environmental issue.

Biodiversity Funds <http://www.biodiversity.govt.nz/land/nzbs/pvtland/condition.html> (DOC)

Zero Waste (Tasman) – see next page

Bayerboost Primary School Science Fund <http://www.royalsociety.org.nz/programmes/funds/education/> This fund is to give primary schools the opportunity to apply for funding required to teach and enhance environmental and 'nature of science' activities for a maximum sum of up to \$2,000 to help fund activities. A successful school may only apply for funding once every three years. The application form must be completed and received by 3.00pm on Friday 26 April 2013.

Habitat Protection Fund http://www.wwf.org.nz/what_we_do/community_funding/habitat_protection_fund/ (WWF)

May

Lottery- Environment & Heritage <http://www.dia.govt.nz/Services-Lottery-Grants-Environment-and-Heritage>

Unisys Kidz Connect Grant <http://www.app3.unisys.com/kidzConnect/>

Recycle Glass Environmental Fund <http://www.recycleglass.co.nz/fund.htm>

June

James Sharon Watson Conservation Trust (Forest & Bird) <http://www.forestandbird.org.nz/what-we-do/partnerships/js-watson-trust>

Applications accepted at any time:

Honda Tree Fund <http://www.honda.co.nz/environment/treefund/>

Conservation Innovation Fund

http://www.wwf.org.nz/what_we_do/community_funding/conservation_innovation_fund/

Kids restore NZ <http://www.kidsrestorenz.org.nz/> (congratulations to Ngatimoti for their successful application)

NZ Community Trust <http://www.nzct.org.nz/>

Lion Foundation <http://www.lionfoundation.org.nz/>

Mainland Foundation <http://www.mainlandfoundation.co.nz/>

Pelorus Trust <http://www.pelorustrust.net.nz/>

Weedbusters Small Scale Initiative Fund http://weedbusters.co.nz/funding/initiative_fund.asp

The Trillian Trust <http://www.trillian.co.nz/index.asp?pageID=2145885933>

Zero Waste Grants Open

Do you have a great idea that could reduce waste?

Tasman District Council's Zero Waste Grants may be able to help you put it into practice.

Zero Waste Grants are available for projects and initiatives that promote waste minimisation and help to educate communities about the importance of best use of resources that also reduce waste.

Funding is available to schools, early childhood education centres, community groups and businesses.

This is a contestable fund.

Closing date for applications: Friday 5th April 2013



For further information about the fund and to download an application form, go to <http://www.tasman.govt.nz/council/grants-funding/available-grants-funding/zero-waste-funding/> or contact Mary Curnow at Waste Education Services, part of the Nelson Environment Centre on 03 545 9176 ext 3 or marycurnow@nec.org.nz