

EcoBuzz

EcoBuzz Edition 72

Term 4 2018

IN THIS ISSUE: Brooklyn School, Waste Audits, Nelson's Sustainability in Schools and Sustainable Style workshops



Parklands School are excited about their new classroom recycling stations. Story page 8.

Christmas -Continuing the journey

Christmas can be a very consumer-centric time of year which leaves us wondering if we have to step away from our sustainability journey to engage in celebrations.

“How the Grinch Stole Christmas” was written by Dr Seuss (Ted Geisel) to reflect his views on the commercialism of Christmas. This book was published in 1957 but the issue continues today.

However, there may be ways to enjoy Christmas preparations in a pay-it-forward kind of way!

This year why not explore the Christmas build up with a different type of advent calendar – think ‘we’ not ‘me’, learn about the art of giving and the rich traditions of many cultures.

Egg cartons are my pick of reusable/recyclable materials to create Christmas decorations from this year. They are easy to source in large quantities and close to the end of their reusable life, being made from paper which has usually been recycled about 6-7 times and reducing in quality each time it is recycled. Therefore I don't feel I am using a high value product from the circular economy.

And on this note, while it may be early, the Nelson and Tasman EnviroSchool teams mihi to the energy and time you all devote to Environmental Education for Sustainability and wish you a season of togetherness filled with fun, love and lots of laughter.

Ngā mihi Heather, Joanna, Nichola and Claire



"Love has no gender – compassion has no religion – character has no race." - Abhijit Naskar

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Nelson City Council – Sustainability in Schools

Programme highlight - Enviroschools theme area resource - Water of Life

The Enviroschools Water of Life theme area resource is an awesome place to find activities to undertake with your students. If you are teaching at a Nelson Enviroschools school and don't have access to this resource, simply drop us a line at Nelsonenviroschools@gmail.com. Tasman Enviroschools please contact Nic or Claire (Our emails are on the previous page)..

All the activities in the resource aim to support tamariki to move through the action learning cycle (Enviroschools inquiry model), exploring alternatives and taking action in ways that are meaningful to them and relevant to their local area.



In addition to the two activities we share here today you could try any of the activities listed on page 29 of the booklet, including:

- Making a rainstorm – Page 30
- Types of water – Page 33 (resource made and available for use)
- How much water is in us – Page 42
- Water is a thread – Page 43 (resource made and available for use)

In addition to these resources we also have the “Maitai against the flow – river game” (large version) available to collect for use at your school from the Nelson Elma Turner Library (email Rosamund.feeney@ncc.govt.nz) or a class set of table top games (email nelsonenvirochoools@gmail.com)



Nelson Central School students explored “Water of Life” activities recently and found that simply ensuring that you have the tap turned OFF when brushing your teeth can save your household water use by 10 litres! (Photo to left)

The harvesting rainwater resource (photo above) and other links can be found on the NCC website:

<http://www.nelson.govt.nz/environment/water-3/water-conservation-1282/>

Other USEFUL LINKS

- <http://www.level.org.nz/water/>
- <http://www.level.org.nz/water/water-supply/mains-or-rainwater/harvesting-rainwater/>
- <https://www.smarterhomes.org.nz/>
- <https://www.smarterhomes.org.nz/smart-guides/water-and-waste/collecting-and-using-rainwater/>

The Great Kereru Count

Congratulations to Victory, Clifton Terrace, Hira and Nelson Central schools who all took part in the recent “Great Kereru Count Survey”, the official count for the Nelson region was 198 observations with 397 kereru counted – twice the number of observations from last year!! We also congratulate Nelson Central School who won the Nelson Enviroschools Kereru Count Mural Competition; we are looking forward to working with you to bring your vision to life.



The highlight of Hira School junior syndicate’s learning journey was creating the gorgeous Miro tree. The tamariki discovered that kereru are the only birds big enough to eat big red berries and disperse the seeds. They also discovered that Kererū are great parents but make very untidy nests!!



Nelson Enviroschools received great feedback about the teaching resources available for this topic of learning. The good news is that the www.greatkererucount.nz website and the NZ bird survey website (www.landcareresearch.co.nz/science/plants-animals-fungi/animals/birds/garden-bird-surveys) are available for your use throughout the year.



Where to next with bird studies

It’s not just us that feel the heat in summer. Bird baths and water feeders are a great way to support birds, butterflies and bees over the summer months.

Garden bird survey - <https://www.landcareresearch.co.nz/science/plants-animals-fungi/animals/birds/garden-bird-surveys>

Planting - <https://www.doc.govt.nz/get-involved/conservation-activities/attract-birds-to-your-garden/what-to-plant/>

Keeping our garden birds safe - <https://www.doc.govt.nz/get-involved/conservation-activities/make-your-cat-conservation-friendly/>

Water feeders – you tube <https://www.youtube.com/watch?v=q6EitavSRNg>

Bird baths – you tube <https://www.youtube.com/watch?v=0qitPIQdQ6U>




Teen take over: Style me Sustainably Workshop

We had 20 teenage girls attend the Richmond Libraries Style me sustainably workshop on the last Friday of the term 3 school holidays.

The girls had a fun filled day with loads of interactive sustainable fashion activities and challenges.

The highlight of the day was the Op shop challenge; which was to find an outfit for under \$10 and up cycle or re style it to show case to the group. The teens also learnt about fast fashion marketing and how recycling clothing and extending its life cycle ultimately reduces excess textile waste going to landfill.



SUSTAINABLE
Style

HERE ARE SOME SIMPLE WAYS TO RECYCLE, RE-USE AND RE-PURPOSE PIECES FOR YOUR LIFESTYLE.

Say yes to second-hand shopping!

- Buy less, buy better.
- Save money, find unique pieces and own your style.


CONFESSIONS OF AN OP-SHOPPER

How to become a master op-shopper without compromising on style. Ask yourself;

- What could I wear with this that I have already?
- Could it be worn a number of different ways?
- Could it be tailored/mended/cleaned?
- Is it good quality/will it last?

THE STYLE GUIDE:

- Style your retro/vintage things with new things in your current wardrobe.
- Choose things that suit your body shape.
- Ask yourself, how would your favourite style icon wear this?
- Play dress-ups, and experiment with ways of wearing things.
- Develop your personal style – start a Pinterest account and collect images of things you love.





What is Ahi Pepe | MothNet?

Ahi Pepe MothNet is a new citizen science project that aims to engage teachers, students and whānau with moths, and through moths with nature and science.



Zero Waste School Fairs



Hope School, Ngatimoti School and Upper Moutere School have all run low waste school fairs this year, some of the actions they have implemented are below. (Please note it is extremely hard to be 100% zero waste at events and each school has done as much as possible to try to eliminate waste going to landfill). We congratulate them all for all their efforts.



- Purchasing sustainable products (compostable packaging).
- Having vendors or stall holders provide a zero waste service. (Incl. no plastic straws, single use cutlery, plastic bags or disposable coffee cups).
- Encouraging public to bring their own reusable shopping bags and coffee keep cups.
- Having waste stations with clear signage and a person to sort and direct people (Compost, Plastics, glass, separated).
- Advertise the event as Zero Waste on social media, on event posters and throughout the day at the event.
- Wash station – purchase cheap crockery to serve food on and use the school dishwasher or kitchen to wash up. You will need lots of volunteers to help run dishes through this cycle and getting clean ones back out to be used.
- Measure and weigh the waste diverted (and any resulting waste to landfill) and advertise the facts and what your school has achieved.

Sustainable transport champion and Kindergarten teacher Amanda Martin

Be a champion in your School or Kindergarten. We've found that there are many good reasons to encourage people to ride to their school and change some work-related car trips to bike trips. We interviewed Amanda Martin from Waimea Kindergarten....

Why do you like cycling to work?

I find it is a quicker way for me to get to work in the mornings, as I am not stuck in the traffic. It also helps me start the day with a clear mind. What are your key tips for teachers who would like to start cycling to work? Just give it a go and you will get hooked. Such a great way to start and end the day. It also means that you can't take much work home with you too!

Other benefits:

Reduce transport costs

Ease pressure on car parking

Promote teacher health and well being

Reduce the environmental impact of your schools and demonstrate walking the talk!



Regional Enviroschools

We welcome Brooklyn School to the Enviroschools Programme.

We, at Brooklyn School, are very excited about becoming an Enviroschool this year. We have a dedicated group of students from every classroom who have banded together and formed 'The Green Academy' and they are busy guiding our school to recognise where we can reduce the amount of rubbish we create and how we improve the waste management at Brooklyn School. We are all excited to make positive changes for our much loved school and environment. One spin off has been Brooklyn's own WOW creations



Wait! – Stop right there, don't move a muscle!

Back from extinction is the Rexasaur and he has a message. He wants you to stop polluting so you don't kill any more species or worse, create a pollution mutant that eats all of us. We used cardboard, a recycled hoodie, hot glue and paper. We added in lots of hard work and focus. All of these things would have ended up in the garbage, unused. Our idea was inspired by Jurassic park. We brought the skills of co-operation, friendship, our original ideas and hot glue gunning skill to the task.



Story of creation – NZ murder Mysteries.

It's a shocking sight to see blood splattered on old layers of paper mache, to give an effect that murder has been going on for centuries. Daisy Barrier and Laila King bring ideas, techniques, friendship, artistry, co-operation, colour coordination, and chaos. But harnessed and used correctly it makes masterpieces. We went to lots of different places to collect ideas. The WOW museum in Nelson inspired us with previous creations. We went to the recycling Centre where we thought of the materials that we might use. After all that travelling we had to link our ideas to sustainability. The books we re-used, were damaged by water in cyclone GITA. The shoes were found at the Salvation Army, and we rummaged through the art cupboard for the net netting on our cape. We hope the unsolved crimes of the past will one day be solved.





Solving Waste Issues at Parklands School

Fruit scraps, milk cartons, lunchbox rubbish, classroom paper all has to go somewhere. We have had systems in place to manage and sort our waste but unfortunately these often fall over. Students don't take their lunch waste home and drop litter, paper is screwed up and can't be recycled, everything gets all mixed up and then it all has to all go to landfill.



Our student Enviro/Health Team tasked themselves with solving this waste problem. Reducing the waste was a good place to start.

We had a Nude Food Challenge week when we collected and counted all the one use plastic that came to school in lunch boxes. Each day we let the classes know how much they brought and challenged the students and parents to bring less. Our daily total went down from 183 pieces to 63 over one week. Students were shocked when we tipped their weeks worth of plastic rubbish out in front of them at assembly. We continue to promote Nude Food and taking all lunch waste home in lunch boxes. A Nude Food Smiley can be put in a child's lunch box to acknowledge parents effort and Home Waste Awards with house points are given to students for taking all their rubbish home in their lunch boxes. Parents can enter their smiley into an end of term lucky draw for a donated prize. Reminders and photos of students nude food lunches are posted on our face book page. This has been a great way to positively promote our waste free message "Nude Food at Parklands School" to our whanau and wider community. We ARE seeing more nude lunches at school.

Sorting our waste for recycle, compost and landfill has been the Enviro/Health teams second waste challenge.

Creative and critical thinking led to the idea of putting a waste station in each classroom. Magical unicorns (one students creative solution) aren't going to pick up and sort our rubbish. We need to provide clearly labelled colour coded bins that are the same through out the school and then teach every one how to sort their rubbish properly. Buying fancy plastic waste stations was too expensive so we decided to build our own. But how are we going to pay for it? Student letters to Mitre 10 Motueka and Tasman District Council asking for support to fund the cost of timber and the plastic bins were successful.



We had student working bees to build the timber frames and now after three terms of investigating, planning and constructing we are ready to launch our waste stations to the school. The Enviro/Health Team will teach and promote the correct use of our waste stations. Melanie McColgan will present a waste education session with our senior classes.

Waste Warriors will be assigned in each classroom to monitor and manage the sorting and collection of waste. Senior students will be tasked with the weekly collection of paper and landfill from each class.

Promoting the Reduce, Reuse and Recycle message will be ongoing. We hope that our new bright classroom waste stations, made by the students, will succeed in sorting our waste better, reducing litter around the school and reducing the amount of rubbish we send to landfill.

Mr Werpp



The Motupipi River Willow Eradication & Riparian Planting Project is making good progress. There are many partners in this project – firstly the landowners along its length, as they are giving up land, allowing access and doing lots of fencing and planting work themselves. The Tasman Environment Trust oversee the project while Annette Litherland from Landcare Trust is project manager. Fonterra, Project de Vine, Tasman Bay Guardians, Tasman District Council Parks & Reserves, Engineering, Environment & Planning and Community Development departments are all supporting the project in different ways.

The other big group is Takaka Primary School who continue their in-depth study of river ecosystems and involvement in restoration opportunities along the banks. All year levels are studying native fish, invertebrates, river quality monitoring and habitats. A six year revolving programme is getting created with support from Tasman Bay Guardians – so Takaka Primary School will be creating lots of experts on healthy river systems – how wonderful is that.



Takaka Primary students finding out what lives near the river's estuary. The rivers source (some springs) and a mid river section were studied by other students.



When planting goes awry! Making sure your seedling Carex is well pushed had an unexpected consequence for this student!

Fay from Tasman Bay Guardians sets the scene for a group of Takaka Primary students using some Whitebait Connections resources.



Waimaori stream care



The Waimaori stream care programme raises community awareness by way of monitoring waterways. Waimaori provides knowledge and hands-on experience about the freshwater environment, promoting biodiversity and enhancement of freshwater fish habitats.

Waimaori aims to

Encourage students and the community to do hands-on monitoring and re-enhancement work in the stream environment. Educate communities – bringing perspectives of ecosystems, river catchment, webs of life, habitat, vegetation, history, Māori concepts of wai, erosion, fish passage, etc. into the experience and knowledge of students. Encourage communities to take action alongside iwi, government agencies and councils to improve streams and their catchments.

Waimaori provides

A fun hands-on approach to studying water quality and aquatic life.

Directive measures for reducing impacts on streams, sustaining, restoring waterways and riparian planting.

Learning and resources to achieve on-going monitoring of adopted sites by students, teachers and action groups.

Education about species habitat and the importance of sustaining biodiversity.

A holistic approach to freshwater enhancement and protection that combines science and tikanga.

Waimaori evolved out of the Whitebait Connection programme, it essentially has all the same ingredients and aims, but has been adopted by tangata whenua of the Nelson Bays region, who recommended the name "Waimaori" – which means freshwater in its natural state.

Contact

For more information about the Waimaori programme contact

Co-ordinator Melanie McColgan.

Mobile phone: 021 146 8654 E-mail: titi711@gmail.com



Cawthron Opportunities and news

Year 13 NCEA biology workshops will be held again in 2019 at the Cawthron Aquaculture Park (in conjunction with Otago University and SpatNZ). We had 140 students participate last year, and we hope to have a similar number next year. It's a great opportunity for senior students to experience real-life research in a laboratory setting. We will be reaching out to schools in term 4 to start organising the workshops which will be held in May 2019.



The annual Science Fair (Cawthron Scitec Expo) went well this year. There were 130 entries spanning the categories of art, technology, science, wood & metal innovation, and research. As usual, we were impressed by the creativity and thoroughness of the entries, and the judges were very excited by the projects they saw. Winners will be announced at the awards ceremony on the 25th of October. Next year the Scitec Expo is open to primary and secondary students.

How much is fresh?



**WATER OF LIFE
ACTIVITY**



What can we learn?
b) Fresh, clean water
is a relatively scarce
resource

This experimental activity compares how much water is in two of the three states (liquid and solid). It then looks at how much of the liquid water is available as fresh water for drinking.

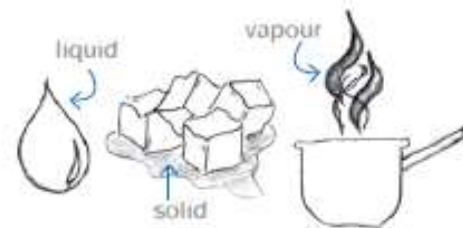
You will need

A series of measuring containers that can measure 1 L, 24 ml, 6 ml and a single drop (an eyedropper or stirring rod can pick up one drop of water)

Method

How much water is there in the world?

1. Fill a container with 1 litre of water. This represents all the water in the world (excluding vapour in the atmosphere).
2. Take out 24 ml. This represents all the water that is frozen in snow and ice, 2.4 percent of the water on the planet. Put this in a separate container and label it 'ice'.
3. See how much is left. This is the amount of water that is liquid. Keep this for the next activity.



How much can we drink?

4. Take the liquid component left from the previous activity (976 ml).
5. Draw out 6 ml of water and put into a smaller container. This represents the fresh water in the world in a liquid state (0.6 percent of the total water). Note that of the 6 ml, only about 2 ml represents surface water; the rest is underground. However, don't measure this out as some ground and some surface water are available.
6. Put salt in the rest (970 ml) and label this container 'oceans'.
7. Now, from the 6 ml of fresh water, draw out a single drop (0.003 ml).

This represents the proportion of water in the world that is available to drink (0.0003 percent of the total). The rest of the fresh water is too dirty, trapped in the soil, or too far underground to extract. Drop the drop into a container and label it 'drinkable water'.

Reflection/ Pūmahara

- How do you feel about wai, after doing this activity?
- Is there enough water in the world for us to drink?
- Is the source for our Enviroschool's water supply plentiful or limited?
- Do all people have the same amount of available drinking water?



Make a water bracelet



WATER OF LIFE
ACTIVITY



What can we
measure?

This activity introduces the water audit. Before you start, make a class list of all the ways water is used in your Enviroschool and guess which take the most water. Then make a water bracelet to record how frequently you use water at your Enviroschool for different purposes.

You will need

- Thick cardboard (or use a cardboard core from a paper towel roll, unravelled so a wrist can fit inside it)
- String or ribbon
- Pens

Method

1. Each child makes a wrist wrapper from a cardboard roll, or a thick cardboard strip about five centimetres wide, long enough to go around the wrist and attached with a ribbon or string.
2. Draw horizontal lines around the bracelet and create a letter or symbol to illustrate each typical use of water, e.g. FT for flush toilet, DF for drinking from a drinking fountain, WH for wash hands, GW for drinking a glass of water, etc.
3. Carry a pen to mark a cross on the bracelet in the appropriate row each time water use occurs.
4. Combine your results and make a class bar graph of frequency of different water uses. Keep this for your water audit.

Reflection/ Pūmahara

Which uses of water were the most frequent?

Was there much variation between different people?

