

Adopt A Stream

Focus on water quality with Adopt A Stream

Sign up for the free Adopt A Stream programme in term one 2010 and join in the World Water Day celebrations by looking at the quality of water in your local stream.

World Water Day is celebrated each year on 22 March. The 2010 theme looks at how important water quality is for the health of people and ecosystems.

The Adopt A Stream programme and Watercare's World Water Day Pack will give you a host of ideas and activities to fit in with any water-based topic. The programme is aimed at years five to eight. You and your students can learn about:

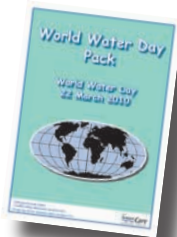
- Turbidity (water clarity)
- pH
- Nitrates
- Freshwater bugs

You and your students can record all of the results on our special A1-size posters and determine the quality of water in your local stream. Perhaps you can make a difference to your local waterway by organising a stream clean-up or by planting along the banks to prevent soil erosion and to provide shade and cooler water for the freshwater bugs.

If you would like to find out more about the Adopt A Stream programme, please contact Sally Smith on 09 539 7316 or email ssmith@water.co.nz

The **World Water Day Pack 2010** which has activities for primary and intermediate students, will be available at the beginning of term one 2010. If you received a 2009 pack last year, you will automatically receive the Section A update as a PDF via email. If you have changed your email address please send your new details to ssmith@water.co.nz and an update will be sent to you.

If you are requesting your first World Water Day Pack, you can either receive it as a series of PDFs or as a CD (maximum two per school). Just send an email to the above address requesting the pack and stating which format you prefer. If you would like a CD, please include your school's full postal address.



Collecting water from a local stream

Water testing with students from Finlayson Park School.

Quotes from some of the students:

"I enjoyed getting to know how to test water properly."

"I learnt how to test water to see if it is dirty or clean. I also learnt that leeches are found in weedy habitats."



Turbidity testing



pH testing

Environmental events in Term 4 2009

19 NOVEMBER – World Toilet Day

This day is to celebrate the humble, yet vitally important, toilet and to raise awareness of the global sanitation crisis. For more information go to: www.wateraid.org/uk/get_involved/world_toilet_day/default.asp



21 NOVEMBER – World Fisheries Day

This day helps highlight the critical importance of water to fishing communities. For more information go to: http://www.gdrc.org/doyourbit/21_11-fisheries-day.html



11 DECEMBER – International Mountain Day

This day is an opportunity to create awareness about the importance of mountains to life. For more information go to: <http://www.timeanddate.com/holidays/UN/international-mountain-day>



Adopt A Stream was developed by Watercare as a free environmental education resource kit for school students in the Auckland region.

Phone: (09) 539 7316 ● Email: ssmith@water.co.nz ● Website: www.watercare.co.nz



Adopt A Stream

A free environmental education programme

The Rain Forest Express...

We're back on track for 2010

The half walk/half ride option will be back at the start of term one 2010. This option allows up to 100 children and parent helpers to make the trip in one day.

Take a beautiful train ride through the Waitakere Ranges to the Upper Nihotupu Dam. Along the way you'll travel through 10 pipeline tunnels, over nine bridges, including the dramatic Quinns Viaduct and come face-to-face with glow-worms and cave weta. Then, walk alongside the dam through native bush listening to the calls of the tui and the beating wings of kereru. You can even test the quality of the Nihotupu Stream and look for freshwater bugs with the Adopt A Stream programme before taking your bus home.

Schools can benefit from a CD packed with ideas for lessons and activities supporting the trip. Also a set of questions can be completed by students on their journey whilst listening to the train driver's commentary.

For train bookings and information about the Rain Forest Express, please phone (09) 302 8028 and for Adopt A Stream enquiries contact our Project Co-ordinator Sally Smith on (09) 539 7316 or email ssmith@water.co.nz



Taking a stop on Quinns Viaduct.



The spectacular Upper Nihotupu Dam reservoir.

Macroinvertebrate Fact File 3

Water Flea - sensitivity scale 5

- Water fleas are crustaceans and are related to lobsters, crabs and shrimp
- There are around 450 different types of water fleas in the world
- They vary in length from around 0.2mm to 6mm
- They inhabit freshwater and are generally found in open water among the weeds of lakes and ponds
- Most water fleas swim by powerful strokes of the antennae, sometimes using a hopping-and-sinking motion
- Water fleas feed on algae, bacterial flora and smaller zooplankton. They are an important part of the diets of small fish and predaceous insects and their larvae
- Under normal breeding conditions, adult females produce three to nine young per brood. The fully mature females are able to produce a new brood of young about every ten days under ideal conditions
- Water fleas have a relatively short life span (about eight weeks) and mature within six to eight days after leaving the brood pouch. They rarely live for more than a year

Water Flea



Freshwater Bug Fact File 3

Collect the fact files, laminate them and put them on to a key ring to produce a macroinvertebrate reference guide.

For Adopt A Stream please contact Sally Smith:

Phone: (09) 539 7316 • Mobile: 021 987 316 • Email: ssmith@water.co.nz

To charter the Rain Forest Express please call (09) 302 8028

**water Care**
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