

CITY OF SAILS

A waste minimisation manual

A guide to minimising waste at school.
Towards zero waste in Auckland city.

ALL THAT
LOW LAND
+ HIGH SKY +
WIDE WATER

53 VOLCANOES

LOW LAND
+ HIGH SKY +
WIDE WATER



Find out more: phone 09 379 2020
or visit www.aucklandcity.govt.nz



Find out more: phone 09 379 2020
or visit www.aucklandcity.govt.nz/wasteinschools



Less is best!

A guide to minimising waste at school

Introduction

Why is less best?

Collecting and disposing of waste in Auckland is becoming increasingly difficult because:

- we are using our resources at an unsustainable rate and our landfills are filling up fast
- our landfills are no longer local – Auckland city's waste is taken to Hampton Downs landfill in the Waikato!
- environmental protection measures at landfill sites are increasing
- the transportation costs are high.

This booklet has been designed as a quick reference to assist you with waste minimisation at school. It will also provide you with the opportunity to involve the entire school in a positive programme of action.

How can my school help?

Using this booklet and advice from Auckland City's waste education officer you can decide what options you want to take to reduce waste at your school.

Additional websites:

Auckland Regional Council

www.arc.govt.nz/arc/environment/waste-recycling

Earthworm Association of New Zealand

www.earthworms.co.nz

O-I Glass

www.recycleglass.co.nz/

Plastics New Zealand

www.plastics.org.nz

Recycling Operators of New Zealand

www.ronz.org.nz

WasteWise Organic Recycling Programme

www.wastewise.org.nz

World Wildlife Fund New Zealand

www.wwf.org.nz

Zero Waste New Zealand Trust

www.zerowaste.co.nz

Gould Group (AUS)

www.gould.edu.au

Ollies World (AUS)

www.ollierecycles.com

6. What else can we do?

There is a lot more your school can do to help the environment and to promote sustainability in your community. The following are available:

Enviroschools awards programme

This programme is designed to encourage schools to become actively involved in environmental education and to be involved with projects that involve the wider community as well. For more information contact the ARC's environmental educator on 09 366 2000 or visit the national programmes website on www.enviroschools.co.nz.

WasteWise programme

This programme focuses on waste where the vision is 'towards zero waste in schools'. The outcomes include: reducing waste, conserving natural resources, reducing waste to landfill and fostering sustainable behaviours. The WasteWise programme contains elements that will contribute towards fulfilling requirements for the Enviroschools programme.

Litter-less lunches

Some schools focus on the contents of the students' lunch boxes where students are encouraged to develop eco-friendly habits. These include:

- avoiding pre-packaged foods
- using reusable lunch boxes and drink bottles
- substituting paper wrap (which is compostable) for plastic wrap.

Some schools also get the children to take their waste home which reduces waste disposal costs and litter at school.

1. Commitment - who needs to be involved?

We all produce waste and we all need to be involved in finding a solution!

For this initiative to work **everyone** who is going to be responsible for using and maintaining the system has to support it and be involved:

- The **Board of trustees** and **the Principal** need to support it and encourage staff time to be spent on the implementation
- The **administration staff** need to participate in their work and manage waste and recycling contracts
- The **teachers** need to support it to ensure they set an example for the children; to make sure it works in the classroom and to link it to learning opportunities
- The **property managers** will be responsible for a lot of the real work such as ensuring that bins are ready for collection, checking material is not contaminated and looking after the composting sites etc. They need to be behind the programme from the start
- **Students** are the ones that will use the systems the school puts in place. It is therefore essential that it is easy to use, that bins are conveniently located and that the system is supported in the classroom and through the curriculum.

2. What happens next?

A waste minimisation policy

In order to ensure that waste is reduced before it gets to the rubbish bins, your school might like to develop a waste minimisation policy (WMP). A WMP helps establish the school's commitment to waste reduction and is a great opportunity to involve students – especially in the research and writing phases. This may include some of the following:

"Our school will:

- seek to purchase products that are wholly or partly made from recycled materials (especially paper)
- try to reduce all the items brought into the school as much as possible by selecting products that do not have too much packaging
- copy on double-sided paper wherever possible to save paper
- reuse scrap paper and envelopes
- develop reuse labels for school envelopes
- encourage staff and students to use reusable products such as cups, drink bottles and china plates rather than plastic or polystyrene
- reduce the number of products that are not recyclable or reusable
- reuse materials wherever possible for other functions in the school
- recognise the efforts and achievements of everyone involved in the waste reduction programme and publicise our efforts to the community
- revise our policies and practices regularly to ensure we are reducing waste as efficiently as possible. We will continue to record changes we make in purchasing and calculate the savings – both environmentally and financially."

A waste audit

In order to determine what and how much of the waste can be reduced it is important to take some measurements. A waste audit helps determine the amount and type of waste being produced on a typical day. During the audit, waste is separated into different categories and weighed. In this way you can determine what you can reduce, reuse and recycle before sending it to landfill. This can be done as a classroom or group activity.

For further information on carrying out a waste audit in your school, contact Auckland City's waste education officer on 09 379 2020.

How much does it cost?

Information on how much it costs to dispose of your waste and what volumes are being produced annually is useful for showing how new initiatives can save you money.

Contact details	Other useful information
09 422 9082 www.kiwiearthworms.co.nz	Supplies worms and bins
09 292 7759 www.wormsrus.co.nz	Supplies worms and bins. Also provides advice and education for schools
www.resene.co.nz/paintwise.htm	A take-back scheme where old paint and cans can be returned to the company for reuse of unused paint and recycling of containers. Free paint also available for schools eg. to cover graffiti
(09) 266 2900 www.albriteonline.com	Collects paper for recycling
0800 732 925	Collects paper for recycling
09 571 0242 www.recycle.co.nz	Collects paper for recycling
Seabrook Ave, New Lynn Open Wednesday 12:00 noon – 2:00pm Saturday 10:00am – 12:00 noon	Treasure trove of materials for art
09 636 5917	Safe and careful demolition of buildings so materials can be reused
www.renewwasteexchange.org.nz	List of businesses wanting/supplying waste for reuse
www.donatenz.com	A web based charitable market where goods can be exchanged
www.arc.govt.nz/environment/funding	Fund to support practical projects that protect the environment
www.recycleglass.co.nz	Eco-fund available (on application) for schools to establish projects. Also provides information about glass recycling
www.wwf.org.nz	Funding for certain projects. A great educational resource
Waste education officer ACC 09 307 7779	Tours of the transfer station can be organised through Auckland City's waste education officer
www.wrt.org.nz	The Trust will take schools tours
09 250 0210 Duncan White	Envirowaste will take tours of their Wiri Road transfer station

5. Who should we call? (continued)

Material	Organisation
Organic (food waste and green waste)	Kiwi Earth Worm Distributors
	Natural Waste Solutions
Paint	Resene
Paper and cardboard	All Brite Industries Ltd
	Full Circle
	Paper Reclaim
Stationery and other resources	The Resource Centre, New Lynn
Wood and metal	Nikau Contractors
Waste exchange	RENEW programme
	DONATE NZ
Funding	Auckland Regional Council Environmental Initiatives Fund
	OI Glass
	WWF fund New Zealand
Transfer station visits	Waitakere Transfer station
	Waiheke Transfer station
	Wiri Road Transfer station

3. What changes can we make?

Reduce it, reuse it, recycle it, compost it

Reduce it!

The less waste you produce in school the less there is to get rid of.

For example:

- measure the amount of paper used by displaying the results on a chart above the photocopier
- put a note beside copiers reminding people to "think before you copy" or "can you double-side it?"
- have a box available for scrap paper from one-sided copies
- put a 'think small' poster beside the stationary cupboard encouraging the use of appropriate sized stationary
- choose containers that can be reused or recycled eg. milk cartons could be collected for the 'Trees for Survival Project' or replaced with a plastic container that can be recycled
- use reusable cups in vending machines and water dispensers rather than disposable ones
- join forces with the 'healthy lunches' brigade – encourage the use of reusable containers and discourage students from bringing pre-packaged food for lunches.

Reuse it!

If it is impossible to avoid using and disposing of some items, consider if they can be **Reused** before they are thrown out.

For example:

- students could design a 'reuse' label for school envelopes. This would save money on new envelopes and demonstrate the school's commitment to reducing waste
- have a box for collecting paper that can be used again on the reverse side
- ask parents or local businesses to provide any 'off cuts' such as fabric, plastic bits, paper and cardboard for use in technology, science and art projects
- students could reuse drinks bottles
- hold a 'trash to fashion' show.

3. What changes can we make? (continued)

Reduce it, reuse it, recycle it, compost it

Recycle it!

As with any industry, recycling only works if there is a market for the materials. At present, markets are secure for paper, cardboard, glass containers, drink and food cans and plastic containers types 1 through to 7.

The council provides a recyclables collection at no cost to primary and intermediate schools. This is because the volumes they produce can be accommodated in our current collection service.

Recycle bottles, cans and glass

- Auckland City Council will provide up to five blue bins to primary and intermediate schools for the collection of clean plastic containers types 1 to 7, steel and aluminium cans and glass bottles and jars. Call Auckland City Council on 09 379 2020
- Contractors will collect recyclable materials from secondary schools. See appendix for names of contracting services.

Labelled bins will help students to understand what can be recycled.

National recycling labels for bins can be downloaded from the following website: www.ronz.org.nz

Yes	No
Plastic containers type 1 to 7 eg. soft drink bottles, milk bottles, shampoo and cleaning product bottles, yoghurt and margarine containers	Any plastic food wrap, polystyrene or plastic bags
Steel cans	
Aluminium cans	Aluminium foil
Glass bottles and jars	Light bulbs, broken glass, windowpanes or crockery

Contact details	Other useful information
Transport Manager 09 270 4227	Site visits can be arranged for classes to see where all metal products (including cans) get reprocessed. Contact non-ferrous trading manager 09 270 7902
Tim Morris Ph: 0800 180 160 www.trconline.co.nz	Can take small groups on tours through facility to see processes
0800 367 897 www.tonerma.co.nz	
09 272 5258	Collection containers for clothing. A percentage goes to the school
09 272 2676 www.the-ark.co.nz	Will refurbish old computers and provides them to schools at a reduced cost
www.dell.co.nz/recycle	
09 636 8455	Will provide a drum and pay for a full container on collection. Cooking fat overloads the wastewater treatment system and clogs drains
09 273 1998	
www.hazmobile.govt.nz	Council driven programme for safe disposal of hazardous material
09 266 2900 www.albriteonline.com	Collects paper for recycling
09 571 0242 www.recycle.co.nz	Collects paper for recycling
	Telecom and Vodafone collect old mobile phones for recycling at all their sales outlets. Also collected at your local Hazmobile collection (see hazardous waste)
09 482 1172	Provides free workshops and advice to Auckland City residents

5. Who should we call?

A list of useful contacts

(Check the Yellow Pages under "recycling" or "waste disposal" for further options)

*Remember it is cheaper to recycle than to dispose of your waste to landfill. It is also better for the environment.

Material	Organisation
Aluminium cans	Sims Pacific Metals
Cartridges	Toner Recycling Centre
	National Toner Cartridge Recycling Centre
Clothing	The Textile Recycling Centre Ltd
Computers	ARK Recycling Ltd
	DELL
Cooking oil and fat	Tallow Products
Fluorescent tubes	Medi-Chem Waste Service Ltd
Hazardous waste (paint, oil, batteries, mobile phones)	Hazmobile
Mixed recyclables (plastic, glass, aluminium and steel cans)	All Brite Industries Ltd
	Paper Reclaim
Mobile phones	Vodafone & Telecom Hazmobile
Organic (food waste and green waste)	Kaipatiki Ecological Restoration Trust

Paper and cardboard

Paper and cardboard can be collected by private operators. Generally, they will provide:

- paper recycling boxes
- wheelie bins for offices
- woosack and frame for storing
- cardboard cages
- weekly pickup.

See appendix for a list of contracting services.

What can be collected for recycling?

Yes	No
All office and photocopied paper and post-it notes	Paper with food on it
Newspaper and magazines	Waxed paper or card (includes packaging for frozen foods eg. pizza boxes)
Cardboard	Multi-layered paper eg. tetrapak

Helpful hints on running your school recycling system:

- Put paper in the bin flat
- Flatten all cardboard
- Dedicate a space for full woosacks to be stored
- Have spare woosacks for paper and card
- Report and deal with problems immediately
- Keep the recycling collection areas clean and tidy
- Wash and squash all containers and remove lids (lids can not be recycled)
- Label bins clearly – colours work well!
- Make use of signs and posters
- Have plenty of bins and place them where people will use them
- Empty bins regularly (make sure it is clear who is responsible for checking and emptying bins)
- Publicise amounts recycled.
- Milk tetrapaks can be collected for the 'Trees for Survival' programme. See www.treesforsurvival.org.nz

3. What changes can we make? (continued)

Reduce it, reuse it, recycle it, compost it

Compost it!

Food and garden materials can be composted. This reduces the harmful effects of organic waste in landfill. Helpful hints for setting up a composting or worm farming system at school:

- Trial collections first so you don't contaminate the compost with materials such as bread, glad wrap or aluminium foil
- Delegate the job of emptying and cleaning the collection bins to specific people (Take turns!)
- Publicise it widely before starting to collect food waste
- Use lots of posters and signs
- Set up designated and obvious bins for food waste
- Set up a garden that will benefit from the compost and worm tea
- Collect: lunch scraps and kitchen waste eg. vegetable peelings, serviettes and shredded paper for a worm farm. Grass clippings, leaves and manure can be added to a compost system in addition to the above
- Avoid: processed foods like bread or cake, meat products, large woody branches or twigs
- Publicise success rates
- Ensure the composting area is kept clean and tidy to avoid any unwanted pests (rats!)
- Read 'Composting - a "how to" guide'. Call Auckland City on 379 2020 for a free copy

Auckland City Council provides free composting and worm farming courses for residents. For information about composting and free courses see www.aucklandcity.govt.nz/council/services/garden/default.asp or contact the Kaipatiki Ecological Restoration Trust for a booking on 09 482 1172.

Useful websites

- www.earthworms.co.nz
- www.mastercomposter.com
- www.wormsrus.co.nz
- www.kiwiearthworms.co.nz
- www.compostingforshore.co.nz

4. Are there health and safety requirements?

You will need to go through a formal hazard identification procedure when setting up a recycling system. Listed below are some hazards you may need to be aware of and suggested actions:

Hazard	Possible action
Hygiene issues during the waste audits	Ensure all participants are issued with protective gear including overalls, masks and gloves
Lifting of heavy bins and bags	Avoid lifting heavy bins and bags. Use more than one person if necessary. Bend your knees!
Tipping over of wheelie bins	Store or place away from play areas
Trucks entering school grounds for recycling pickups	Arrange pick ups from 'out of bounds' areas or after hours pickups
Hygiene issues from dirty bins	Clean bins regularly
Rats or pests at composting areas	Avoid processed foods and meat products and keep covers on worm farms

Hazardous substances

Small quantities of left over hazardous wastes such as paint, garden chemicals, batteries, pool chemicals and cleaning products need to be disposed of correctly. The Auckland Regional Council (ARC) runs a mobile hazardous waste collection service called the 'Hazmobile'. See the summary at the end of this booklet for more information on contacts or call the ARC on 09 366 2000.