


# Waste audit



ZERO WASTE  
ACTIVITY



What can we  
measure?

This waste audit is a thorough assessment of what is in your waste stream. It provides valuable information about what types of waste are being generated, how waste is being generated, where it is ending up and what impact it may be having on your environment. This will help you pinpoint areas for action. For a more comprehensive auditing process where you can upload your auditing results and measure and track the results over time please go to the Zero Waste section on the EnviroSchools website  [www.enviroschools.org.nz](http://www.enviroschools.org.nz).

## You will need

- Plastic bags
- Scales
- Rubber gloves
- Waste audit sheet (see following pages)
- An area to conduct the waste audit
- Tarpaulin or plastic sheet to cover the floor

Waste reduction can almost always be achieved at very little, or no cost at all, and often only requires a little creative thinking. Your EnviroSchool may find it is able to reduce the amount of waste currently produced by installing compost, bokashi or worm bins for organic waste, or by simple attitude changes, such as eating all of your lunch and writing on both sides of a sheet of paper.

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<b>Inform people</b>	For a waste audit to work, it is important that everyone in your EnviroSchool knows what is happening and why you are doing it. This includes staff, students/ tamariki and caretakers, but also parents or people who may visit your EnviroSchool during the waste audit period.
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<b>Plan the audit</b>	Design a programme for carrying out the waste audit in your EnviroSchool. <ol style="list-style-type: none"><li>1. Break your EnviroSchool into set areas.</li><li>2. Predict potential volumes of waste from each area beforehand so that you can choose a suitably sized team of waste auditors.</li><li>3. Assign a team of waste auditors responsible for each area.</li><li>4. Design a chart showing areas of your EnviroSchool, waste auditors responsible, and team assigned to that area.</li></ol>
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<b>Collect your waste</b>	<p>The day before you will be doing your waste audit, you will need to save all the waste produced. This will mean that everyone, including teachers, caretaker, administration staff, students and visitors saves their waste.</p> <p>‘Waste’ is everything that would have been disposed of as rubbish and could include the contents of rubbish bins, kitchen or canteen scraps, packaging, office paper and anything that the caretaker may be throwing away. If your EnviroSchool is already recycling material such as paper and glass, you may also like to keep a separate record of the volumes generated on this one day.</p> <p>Waste auditors responsible for each area will need to store the waste in a safe place overnight, where it won’t be tampered with, and where animals can’t get into it. The waste will need to be marked showing what area it came from.</p> <p>Make sure all the tools required for the audit are ready for the following day and that all people involved know what their responsibilities are.</p>
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**Conduct the audit**

Prepare all the tools and materials needed for the audit. Make sure each team has instructions and recording sheets.

On waste audit day, where possible, carry the bags of waste into an open area such as the playground or carpark. You will need adequate space, especially if you have large amounts of waste, to spread the material on the ground and sort it. You may want to use a large tarpaulin to keep the floor or ground clean. Make sure everyone is wearing gloves.

Work through the following steps and record all your data on the Waste audit sheet.

1. Weigh the total amount of rubbish you have collected. You may need to do this bag by bag and add the results together. As well as the weight, it is useful to record the number of full bags of rubbish that you collect.
2. Spread the rubbish out on the ground or on a large tarpaulin. Survey the rubbish and make notes on some of the things that are in it.
3. Separate the waste into different categories as listed on the Waste audit sheet. Some categories, such as paper, can be split into primary and secondary classifications. Estimate visually the percentage of all your waste for each category and record on the Waste audit sheet.
4. Weigh each rubbish category (remembering to subtract the weight of the container or bag you are weighing the rubbish in). Write the weight in the Waste audit sheet.
5. Add up all the category weights. They should equal the total weight of all the rubbish as calculated in Step 1. If not, recheck your weights.
6. Deliver your team's waste to the caretaker for recycling or disposal.

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**Results**

1. Work out the percentage of waste for each category and fill in the remaining column on your Waste Classification Sheet.

$$\frac{\text{weight of category}}{\text{total weight}} \times 100 = \% \text{ total weight}$$

2. Draw a pie chart of your results.
3. Combine the results from all of your waste audit teams and work out the total volume of all waste and the percentages for each category.
4. Calculate how much waste your EnviroSchool could dispose of in one year based on the results of your waste audit. Use the total weight of your audit, the number of days your school is open in a week and the number of weeks it is open in a year. Use your percentages from your pie chart to work out the weight of each of the waste categories.
5. Think about all the waste your EnviroSchool is producing.
  - If a small car weighs one tonne then how many cars would you need for it to be equivalent to the weight of the waste that your school produces?
  - How many classrooms would you need to fit all of this rubbish into?
  - What happens to all of this rubbish and where does it go to?
  - What effect is it having on the environment?
  - How much is rubbish disposal costing your EnviroSchool?
  - What could you do to stop all of this waste being generated in the first place, and how could you reuse or recycle this material?

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**Communicating results**

Take the results of the waste audit back to your classrooms to discuss how to share the findings with the rest of your EnviroSchool community. How will you explain to those who didn't take part in the audit what you saw in the rubbish bins?

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**Making progress**

Discuss a good time to do another waste audit. Collecting more data will help your Enviroschool to see if it is making progress in reducing the amount of rubbish that it disposes of.

Next waste audit due: \_\_\_\_\_

1. Store the information on the school computer system for students to use for future learning. A historical record could be built up over the next 10-20 years.
2. Give a copy of your results to your Enviroschools facilitator.

The report will document the results of your audit so that future students can see how your school is progressing in reducing its waste and so that other Enviroschools can see what you are doing.

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### Reflection/ Pūmahara

Are there any products being thrown away as rubbish that could be used again?

Which materials in your bin can be recycled?

Did you find a large amount of organic waste in your bin?

Are there any things already being collected for recycling?

Are there any recyclable items that are not being recycled because you don't know how to collect them or where to send them?



*Stratford Primary School's Enviro group celebrate after their waste audit shows a huge reduction in waste to landfill (12-13 wheelie bins down to 2-3!) – Taranaki*



*Waste audit taking place at Glenfield Kindergarten in Auckland*

# Waste audit sheet

Name of Enviroschool \_\_\_\_\_

Area being audited \_\_\_\_\_

Primary Classification	Secondary Classification	Weight	% of Total Weight	Visual %
<b>Materials that could have been diverted from landfill</b>				
<b>Paper</b>	<b>Recyclable paper</b> – office paper, shredded paper, newspapers, magazines, printed materials.			
	<b>Cardboard</b> – cardboard boxes etc.			
	<b>Compostable paper</b> – paper towels, serviettes, non-waxy food bags and wrappers, moulded paper e.g. egg cartons.			
<b>Plastics</b>	<b>Recyclable plastics</b> – Check with your local Council what symbols can be recycled in your area.			
<b>Organics</b>	All food scraps			
<b>Metals</b>	Steel cans/ aluminium cans/ clean aluminium foil			
<b>Glass</b>	All glass bottles and jars			
<b>Materials that could not have been diverted from landfill</b>				
<b>All other waste</b>				
<b>Hazardous waste*</b>				
<b>TOTAL OF ALL WASTE FOR AREA</b>				

\* Hazardous Waste: this waste should not be landfilled but disposed of in an appropriate manner at your transfer station or through an e-waste facility. However, for the audit we are including hazardous waste found during your landfill audit in the 'non-divertible' category to simplify the data entry and reporting. Generally the volume of hazardous waste found mixed in with general waste should be quite low.

Content sourced and adapted from: [www.measuringchange.org.nz](http://www.measuringchange.org.nz)