Waste audit toolkit

GOVERNMENT OF WESTERN AUSTRALIA

WASTE AUTHORITY
WA...TOO GOOD TO WASTE

WasteSorted Schools

Contents

What is in the toolkit?

Waste audit

What is a waste audit?

A waste audit is a fun learning activity and research tool, which can be used to find out:

- the types of waste produced by your school
- the amount of waste produced by your school.

Students collect waste from the general waste bins and sort it into specific categories to see the amount and types of waste going to landfill. See page 7 for the different categories.

Why run one?

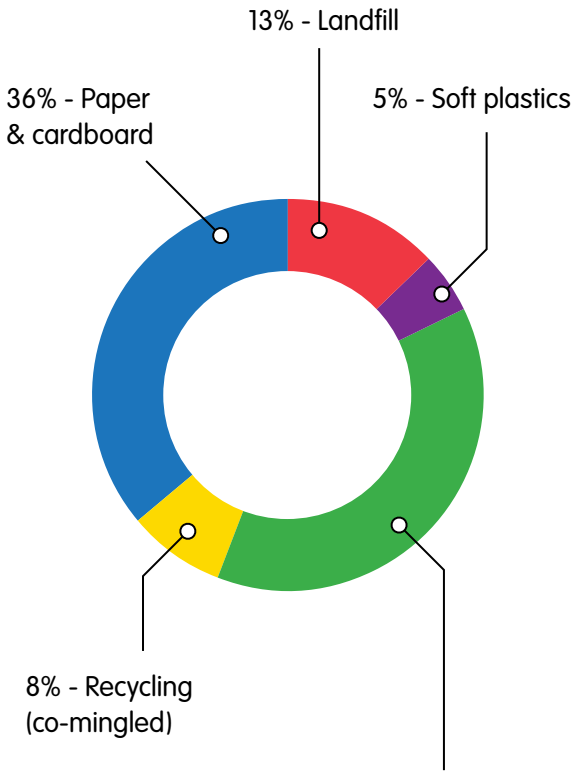
Over 300 schools in Western Australia have held a waste audit in the last five years, to find out what is going into their landfill bins.

Many schools find waste audit data helps prioritise waste projects, identify issues in current waste projects, and measure improvements in reducing waste.

After doing a waste audit, many WasteSorted Schools bring in worm farms, compost bins, chickens or food waste collection services to earth-cycle fruit and vegetable scraps into products for the garden! When sent to landfill, this organic waste can produce harmful methane gas.

The following chart shows typical waste audit results in Western Australian schools.

Waste in WA schools 2015



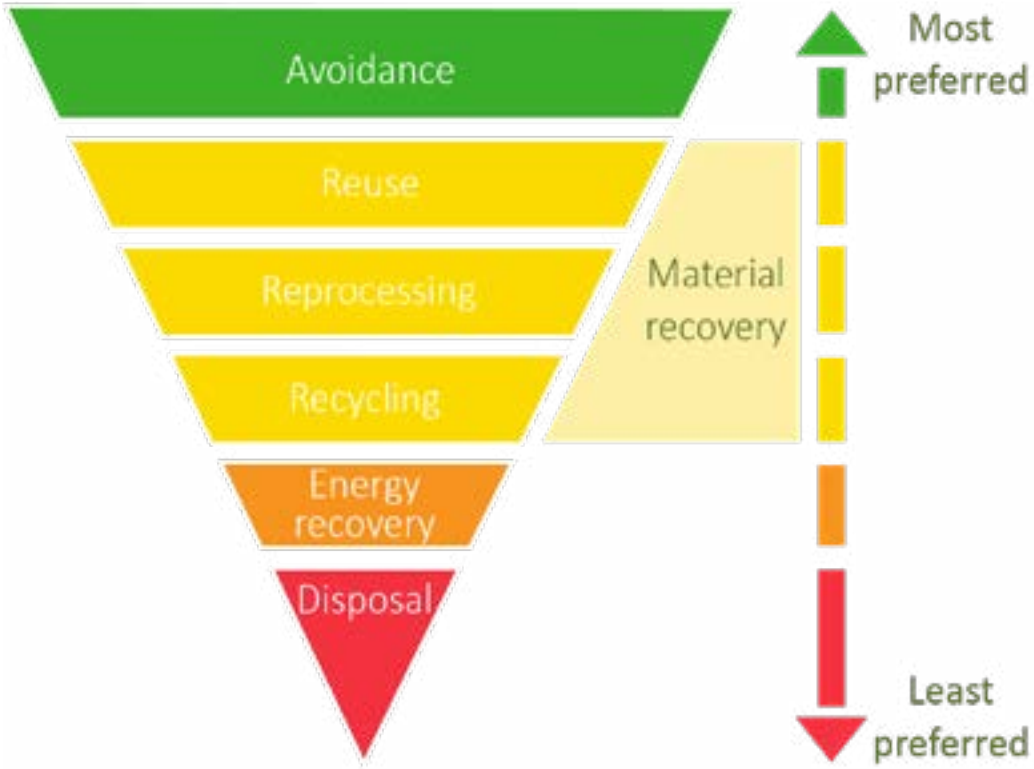
It is easy to make landfill the last resort. Some schools divert up to 87 per cent of their waste from landfill by recycling (paper, cardboard and containers), composting food scraps and taking soft plastics to a drop-off point.

Waste audit

By running a waste audit, students learn the impact their waste behaviours have on their school environment. When students reduce the amount of school waste being sent to landfill, it brings the global environmental issue of waste into a relatable and local context.

Already reduced your waste to landfill?

The waste audit is only for assessing waste that is normally sent to landfill. If you already recycle or compost, you do not need to audit these bins. Some schools do a different type of audit on these bins – a visual audit.



The waste hierarchy ranks waste management options in order of their general environmental desirability, with the landfill bin (disposal) being the last choice.

Some schools use the hierarchy to think about the best way to manage their waste.

What do schools do to reduce waste?

School's use five simple steps to make landfill the last resort:

- **G - GIFT** items to charity or reuse them.
- **R - RECYCLE** paper, cardboard, cans, glass and plastic.
- **E - EARTH-CYCLE** food scraps into compost.
- **A - AVOID** excess packaging.
- **T - TAKE** items to a drop-off point.

For more ideas, visit www.wastesorted.wa.gov.au

Be a GREAT Sort!

Landfill is the last resort.

Running a waste audit

Recommended age groups:
Year 3 and up.

Recommended time:
After lunch, approximately 2 hours.

WasteSorted Schools offer free waste audit incursions in the Perth metro, Kimberley and Kalgoorlie-Boulder areas.

External waste audit kits are supplied to schools outside of these areas. These kits contain some of the equipment you need to run this activity. Contact wastesortedschools@dwer.wa.gov.au for more information.

Alternatively, contact your local council or regional council waste educator to see if they run waste audits for schools.

Preparation

- Consider running a pre-audit classroom activity (see later section for ideas).
- Show students the WasteSorted Schools our waste audit video.

Safety

- Sharp things: have teachers check for and remove sharp items which could cut students – such as broken glass, pins or can lids – from the waste prior to students sorting through it.
- Hygiene: wear gloves throughout the audit and wash hands afterwards. Tell students not to touch others or themselves with the sorting gloves or tongs.
- Trip hazards: be careful of plastic sheets or tarps and multiple sorting tubs. See suggested steps below to limit student numbers when sorting waste.

Equipment

Waste audit station:

- All the general waste bins from the school yard. Smaller schools can include staffroom and classroom bins. We recommend not using the bathroom bins for hygiene reasons.
- Fully enclosed undercover area to protect from the weather and wind, which could blow the waste.
- Floor covering, such as newspaper, black plastic or tarp.
- 13 boxes, buckets or tubs with a capacity of at least 20 litres, preferably all the same weight and size. If you only have smaller containers, make sure you have more on hand.
- One bucket to empty the liquids found in drink containers.
- Waste audit sorting category signs (printed from section below).
- Gloves and/or tongs for each student. Ask students to bring reusable gloves from home to prevent plastic waste.
- Camera (optional).

Weighing station:

- Waste audit data sheet (find in resources section).
- Scales – ask the science department for scales or bring food measuring scales from home.
- Table or flat surface.
- Pencil or pen.

Running a waste audit

Cleaning station:

- Buckets of soapy water and/or a hose
- Cleaning cloths
- Towels to dry equipment
- Dustpan, broom, mop

WasteSorted tip

This waste audit will focus on the waste produced by your school in one day. You will only be looking at the waste going to landfill. Only audit the general waste bins. Paper recycling bins, compost bins and comingled recycling bins have already been separated from the general waste stream, so they do not need to be audited.

If you have more than 200 students at your school, you probably won't have time to audit 100 per cent of your waste. Use the time you have to audit as much of your waste as you can.

As a guide, it usually takes about two hours to audit three full bins. However, it is important to collect and count all the bins from your school yard so you can work out how much of the waste you have audited. For example, if you audit three out of 12 bins in the time you have, you will have audited 25 per cent of your waste. Use this to calculate the whole school's waste at the end.

Set up

1. Weigh each empty sorting tub and write the weight on the tub and/or the data sheet for the relevant category.
2. Place 12 sorting tubs and the bucket to collect liquids from beverage containers on the floor covering and hang the category signs over the edge of the tubs or prop them up so you can see them clearly.
3. Set up a cleaning station on a lawn or appropriate area nearby.
4. Hand out gloves (if they didn't bring their own) and tongs to each student.

WasteSorted tip

At WasteSorted Schools, we use three tub colours: red, yellow and green. These are the same as your kerbside collection bins to show students which items can be recycled (yellow), which items are organic waste (green) and which items are destined for landfill (red). The category signs are colour-coded and feel free to colour your tubs if you have time.

Running a waste audit

Count the number of Containers for Change containers (optional) at the end, after all categories have been counted and weighed. Don't sort into this category during the waste audit.

Method

1. Run through the 12 main sorting categories so students understand what to sort into each tub. Use the 'waste audit sorting categories cheat sheet' from the resources section to help.
2. Run through the safety rules of conducting an audit.
3. Divide students into two groups, as audits work best when students are split up. Group 1 can start sorting the waste and group 2 can act as tub monitors. Members of group 2 stand behind a sorting tub and help group 1 sort by making sure only the correct items are placed in each tub. This reduces contamination. Swap the group roles back and forth several times. Continue until all the waste is sorted.
4. Take photos of each completed tub before weighing it (see picture on the right).
5. Count the number of items in the eight categories which require a tally of items. This gives students a better understanding of how much waste is collected, as 80 snack wrappers, for example, only weighs approximately 0.3 kg. Allocate one or two students to each category to count the number of items.

Running a waste audit

Which categories need counting?

Plastic bottles and containers, whole fruit, aluminium cans and foil, whole packaged (unopened) food, liquid paperboard (LPB) cartons, Tetra Paks (silver lining), plastic bags, snack wrappers, containers for change.

The waste audit signs are labelled 'Please count before weighing' on the categories which need counting.

6. Ask students to put their category label inside their tub when they finish counting and take them to the weighing station. Make sure all tubs are weighed, even if they are empty, to ensure every category is accounted for on the data collection sheet.

At the weighing station, allocate three responsible students and an adult to supervise. Give the students the following roles:

Student 1: asks students to line up and collects the category labels. Asks the students lining up the number of items they counted for their category before letting them go to student 2.

Student 2: weighs the full box/tub and reads out the weight to student 3.

Student 3: writes down the weight and number of items for each category on the data sheet.

7. This step is only to be completed if you are collecting data for Containers for Change. After the other categories have been weighed and counted, remove the beverage containers from these four tubs: plastic bottles and containers, liquid paper board cartons, aluminium cans and foil and Tetra Paks (silver lined). Place the beverage containers in the last tub and count and weigh this category. You can use this data to find out how many eligible containers you could be saving from landfill using the Containers for Change recycling scheme.

Source: https://www.containersforchange.com.au/wa/

Clean up

Once all data has been collected, students should tip their waste into an empty general waste bin, relevant recycling bin or organic waste bin and head to the cleaning station to wash the equipment.

We recommend washing and reusing all equipment, including the sorting tubs, black plastic/tarp, tongs and gloves instead of disposing of equipment. Make sure the waste auditing area is swept and mopped and all students wash their hands thoroughly.

Running a waste audit

Discussion

Once the clean up is complete, gather students and discuss:

- what they thought of the audit
- what they expected to see and what they did not expect to see and why
- the (raw) data results and items that seemed high or low in number and weight
- which items found in the general waste bins could be GIFTED, RECYCLED, EARTH-CYCLED, AVOIDED and TAKEN elsewhere? What is left after you've done these five things?

Waste audit data

Once you have weighed the empty tub and then the tub filled with waste, calculate the weight of waste by subtracting the weight of the empty tub from the weight of the filled tub.

Transfer this data from the sheet to the waste audit excel spreadsheet, along with the number of students at your school and the estimated amount of waste you audited (e.g. 25%). The spreadsheet will automatically populate the amount of waste generated in one day, over one year, and per student per year.

Celebrate with your community: Celebrate key milestones in your waste journey! Many schools share waste audit results and projects at school assemblies, in newsletters and through local media announcements. Some ask members of their local or regional council to come to assemblies to share the school's success and inspire the school community. Others get parents on board with information nights, articles in newsletters and by giving each child a certificate as positive reinforcement which can be shared with their family.

Please send a copy of your completed waste audit data sheet and/or excel spreadsheet to WasteSorted Schools.

Keep it going

Run another audit: Some schools run an audit every year. They either book an annual WasteSorted Schools waste audit incursion or run it themselves.

Some schools use peer teaching so experienced classes can teach the next class. They also use different classes each time to ensure a whole-of-school approach.

Use the data: Schools that run regular audits maintain enthusiasm for waste projects because they can see a reduction of school waste and improvements in waste sorting behaviour.

Classroom activities
Before the waste audit

Many WasteSorted Schools are GREAT Sorts and reduce their waste to landfill through these waste sorting activities.

Where can it go?

Prompt students into thinking of alternatives to sending waste to landfill by running a classroom bin audit before a whole school waste audit.

Complete an audit of the classroom bin in any of the following ways:

- empty items from the bin onto a plastic sheet or layer of newspaper
- project a photo of the top layer of the bin onto the classroom board
- ask the class to write down every item thrown in the bin over the course of the day.

Once the audit is complete, go through the results and prompt students to reflect on each item in the following ways:

- Why is the item being thrown away? Is it broken? Is the item designed to be thrown away after one use? Is it partly eaten food?
- What are some alternatives to landfill? Brainstorm ideas with students, including practices at home. For example, do students have chickens or a worm farm, do they pass things on to younger family members, or do they fix items if they break?
- Draw the table below on the board. Ask students to sort the items from the waste audit into the categories below, which offer alternative solutions to landfill. Count how many items from the audit could not be sorted into any category. Were there many left over?

Landfill	Alternative solutions to landfill				
	Gift	Recycle	Earth-cycle	Avoid	Take to a drop-off point
Leftover items from the classroom bin.	Examples include good-quality items like text books, stationary, uniforms.	Examples include paper, cardboard, metal cans, glass bottles or jars, plastic containers and bottles.	Examples include food scraps, dirty paper, paper towel.	Examples include single-use plastics, straws, plastic bags.	Examples include batteries, charging cords, e-waste.

Taking it further

Maths: Ask students to make a bar graph to show the results from the table, including the leftover items destined for landfill. How much waste from your classroom bin can you easily divert with a few simple waste sorting steps?

English: Discuss key terms in waste management from the waste hierarchy and the pros and cons of each way of managing waste in Western Australia. Asks students to create posters with three easy solutions to avoid or recover classroom waste, based on the data from the classroom audit. For high school students, refer to the Western Australian Waste avoidance and resource recovery strategy.

Science: Design a system for collecting and recycling classroom waste. Consider the main types of waste generated in your classroom and how to recycle them, such as setting up an earth-cycling system, using local council collection, Containers for Change, or designing a machine to break down and recycle materials into raw materials which can be repurposed into new items, like paper fire-starter briquettes or jewellery from plastic waste.

Design and Technology: Make a sustainable and reusable item from repurposed waste, such as a shopping bag from an old t-shirt or beeswax wraps from old bed sheets.

Watch: Watch the War on Waste videos, such as the episode extra 'Zero Waste Family: Make Your Own Toothpaste and Deodorant' from Season 2 on ABC. Discuss the solutions to avoiding waste presented by this family. How could your school or community adopt some of these? Use a series of opinion lines to create discussion, by placing 'strongly agree' and 'strongly disagree' at either end of the classroom (examples below) and ask your students to place themselves along the line. Follow up by asking them to write a short answer in their journal to the question 'whose responsibility is waste?'.

Example opinion lines:

- 'What I do with my waste is my responsibility.'
- 'If I take my own container, I can make an impact on the amount of waste I produce'.
- 'It's important to take reusable bags when you go shopping'.
- 'Recycling waste is more important than avoiding waste'.

Excursion: Arrange a school tour of your local waste management facility to see how your local or regional council manages waste from your area. Alternatively, watch the virtual tours of the Resource Recovery Group's green waste and materials recovery centre or Suez's waste management facility.

Activity 1

What others do

Normalising waste management behaviours will drive change in your school, as will giving students responsibility and a sense of achievement. In this activity, students will look to successful WasteSorted Schools in Western Australia to see how they have effectively recovered and avoided waste in their school communities.

Step 1. Review waste audit data:
As a class, review the waste audit data and photos. Discuss the main findings from the waste audit, including the main sources of waste (by weight or number of items) from the school landfill bins. Pick three to four main waste streams to focus on during the lesson. You'll use these later.

Step 2. Think, pair, share:
Using the waste hierarchy on page 4, run a 'think, pair, share' on which of these items can be easily avoided or recovered by the school community through gifting, earth-cycling, recycling, or collecting to take to drop-off points. Is your school doing any of these already?

Step 3. What others do:
Group students and assign a waste stream from part 1 of the activity to each group. Go to the WasteSorted Schools case study webpage and use the filter to search by the assigned waste stream.
Ask students to investigate what successful WasteSorted Schools have done to avoid or recover a specific waste stream.

Get students to research two or three schools and write a few dot points about how each school managed a specific waste stream, including how students were involved or led the projects. Using their dot points, students should write a summary paragraph to show how WasteSorted Schools have been successful at managing waste. They must include several ideas of how they could apply these strategies to their own school's waste management system.

Ask students to share their summary paragraph with the group for peer feedback.

Augusta Primary School won WasteSorted School of the Year 2020 for their approach to avoiding and reducing waste.

Activity 2

Influential thinkers

Solutions to waste management come not only from trained experts but also from everyday people wanting to make a difference. By showing students how influential thinkers are helping to solve common waste problems in their community, you will inspire students to take responsibility for managing waste in their own environment.

Ask students to research the influential thinkers described on pages 15-16. Run this activity in one of the suggested formats below, based on your class year level and ability, or choose your own format.

Activity formats

Jigsaw

Divide students into five or more 'expert' groups to research and review information on one influential thinker each. They will need to research who the person is, what waste problem they saw in their community, what they did to address it, and how it is making a difference in their community.

Step 1 Once students have reviewed the information and taken notes on their influential thinker, form the students into 'teaching' groups, with each group composed of one student from each of the different 'expert' groups.

Step 2 Ask students to take turns presenting key facts about their influential thinker to their 'teaching' group, with the members of the group taking notes and asking questions.

Step 3 Once the groups have finished sharing information, conduct a class discussion on how much impact one person can make. Try using the following quote to engage students in discussion: "When people think about travelling to the past, they worry about accidentally changing the present, but no one in the present really thinks they can radically change the future."

Group poster and gallery walk

Step 1 Divide students into groups and assign them one influential thinker to research. Give each group butchers paper and coloured pens (or the equivalent for your classroom).

Step 2 Get each group to create a poster to highlight the influential thinker's contribution to waste management. Each poster should include the following:

a. a title that stands out
b. the name of the influential thinker
c. key words about the topic
d. the main achievements of the influential thinker
e. the reasons they started their business/waste management project
f. how they have influenced their community (local, national, or international)
g. a colourful picture to represent the influential thinker.

Step 3 Give students 20 minutes and when the time is up, display each poster on the wall. Next to each poster, place a blank sheet of paper for questions (consider using the back of a used piece of paper for this).

Step 4 Ask students to stay in their groups and complete a gallery walk through the posters. At each poster, get the group to read the poster and write a question on the question sheet about the influential thinker. Assign a time limit if needed.

Step 5 Once complete, get a student (or you can as the teacher) to read out the questions to the class and use them to generate discussion on how individuals have the power to create change.

Report

Ask students to create a report, video or slideshow on one of the influential thinkers and how they influenced their community to reduce waste.

Influential thinkers

Gifting

Andrew Valder and Darryl Nichols started the Garage Sale Trail in Sydney in 2010 to reduce illegal dumping and waste going to landfill, and to increase community cohesion. Selling unwanted goods is another way of gifting – instead of throwing them into landfill.

www.garagesaletrail.com.au/

www.watoday.com.au/national/western-australia/wa-in-the-drapht-for-45-million-garage-sale-trail-20131024-2w486.html

Recycle

a) Dave Hakkens set up Precious Plastics in 2012. He shares his knowledge about plastic recycling on an open platform to empower people globally to eliminate plastic pollution by recycling it into new products.

community.preciousplastic.com/academy/intro

www.forbes.com/sites/jeffkart/2020/02/12/this-open-source-precious-plastic-project-is-changing-what-waste-means-and-how-recycling-is-done/?sh=106e1005f6e8

b) Professor Veena Sahajwalla is a materials scientist, engineer and inventor who revolutionised the steel industry by creating 'green steel'. She has also recently created a new way to make 'green ceramics' from textile waste and recycled glass.

www.abc.net.au/news/2021-02-22/veena-sahajwalla-recyling-revolution-green-ceramics/13041936

www.intheblack.com/articles/2020/07/01/veena-sahajwalla-revolutionising-recycling-science

Image source: https://createdigital.org.au/meet-engineer-helping-people-see-huge-possibilities-circular-economy/

Classroom activities

Earth-cycle

a) Eliska Bramborova and Tomas Brambora set up the free digital source map 'ShareWaste'. ShareWaste is community project which connects people via the map so they can share their kitchen scraps and earth-cycling systems, such as compost heaps, chickens and worm farms, to reduce the amount of food waste going to landfill.

en.reset.org/composting-app-08032018/

sharewaste.com/

b) The City of Bunbury was the first local government in Western Australia to use Food Organics and Garden Organics (FOGO) bins. These bins divert organic waste from landfill and prevent the associated methane production and damage to our environment.

www.abc.net.au/news/2019-03-17/perth-looks-to-bunbury-for-fogo-waste-strategy/10907286

www.bunbury.wa.gov.au/Pages/Waste-and-Recycling.aspx

Avoid

a) Molly Steer is a young girl from Queensland who founded 'Straw No More' after watching a documentary on the environmental effects of plastic pollution. The 'Straw No More' movement encourages community groups and businesses to avoid selling straws.

www.strawnomore.org/

www.ted.com/talks/molly_steer_straw_no_more/transcript?language=en

Image source: www.abc.net.au/news/2018-04-11/girl-wins-straw-phase-out-cairns-council-agree-ditch/9640522

b) Rebecca Prince-Ruiz founded Plastic Free July to help others avoid single-use plastics after seeing the amount of plastic thrown away when visiting her local waste management facility in Perth.

www.australianoftheyear.org.au/recipients/rebecca-prince-ruiz/2382/

alumni.uwa.edu.au/profiles/rebecca-prince-ruiz

www.plasticfreejuly.org/about-us/

Classroom activities

Take

a) Dismantle is a not-for-profit organisation in Perth which rescues and restores old bikes from landfill while helping at-risk young people reach their potential.

www.dismantle.org.au/

rac.com.au/car-motoring/info/stories_dismantle-bicycle-workshops

www.perthnow.com.au/community-news/western-suburbs-weekly/dismantle-west-leederville-shop-receives-grant-to-help-work-with-at-risk-youth-c-791832

b) Mobile Muster is a not-for-profit organisation started in 1998, which provides free mobile phone recycling to Australians. Phones can easily be recycled by taking them to drop-off points or by posting phones and accessories to the company.

recyclingnearyou.com.au/about/mobilemuster

www.mobilemuster.com.au/about-us/

wastemanagementreview.com.au/tag/mobilemuster/

Classroom activities

More activities from WasteSorted Schools

Visit WasteSorted Schools teacher resources for more lessons, toolkits, and curriculum guides. Examples include:

Avoiding single use plastic: Lesson on how to 'choose to refuse' single-use plastic.

What's in the lunchbox? Lesson exploring reducing lunchbox waste.

Worm food investigation: Lesson where students build a mini worm farm and investigate the factors affecting the rate worms consume food.

Buying in bulk: Lesson on the benefits of buying in bulk.

Make food waste history: Lesson about preventing food waste.

Other resources

3 bin FOGO game: An interactive game to help revise waste sorting knowledge. For FOGO bin systems only. Created by the City of Melville.

ABC education has videos, articles, digibooks and audioclips to help you teach about waste in subjects across the curriculum and year groups.

TED talks: There are several talks on people finding solutions to tackle waste.

- Haaziq Kazi – an 11-year-old with a plan to clean the oceans.
- David Katz – founder of the Plastic Bank, which monetised plastic waste in poor economies to prevent plastic waste entering the oceans and close the loop in plastic manufacturing.
- Andrew Dent – a man who encourages rediscovering thrift to reduce waste to landfill.

Documentaries: ***Waste Not; Wasted! The story of food waste; Waste Land***; or ***Just Eat It*** – such examples show students the prevalence of managing waste. Show these documentaries in a solution-focused light so students feel empowered to make change.

Enacting change

Use your waste audit results to make changes in your school to reduce waste to landfill. Work out which waste streams are priorities and the easiest to manage. We recommend schools target waste streams in the order below.

These are suggestions only. Getting students on board to initiate and lead projects will lead to greater success. See the WasteSorted Schools checklist for more project ideas.

Waste stream	Actions	Resources and further information
Paper and cardboard	Most schools set up paper and cardboard recycling using ideas from the WasteSorted Schools checklist. Set up skip bins for paper recycling collection. Put a sign on the front of each bin and/or bin lid to show what is accepted in the bin. WasteSorted has free bin signs for schools. Some schools recycle paper on-site through paper making sessions, making and selling fire-starter briquette, or shredding paper to use in chicken or animal pens.	See the recycling services for WA Government Schools factsheet for information about recycling services or speak to your waste collection service provider. Read the common use arrangement buyers guide for agency staff procuring waste disposal and recycling services. Download some WasteSorted bin signs.
Compostable organics	Earth-cycle food waste at school using composting, worm farms, chickens or food waste collection services. Many schools set up infrastructure to make sorting food scraps easy for students and staff. Some schools have made changes to avoid producing as much food waste. They've done this by changing the order of play time and eating time so that students play first then sit to eat. Find more helpful advice in our waste-free lunch toolkit. Some schools also educate parents and students about food waste and encourage conversations about positive food choices which will avoid waste.	See the recycling services for WA Government Schools factsheet for information about recycling services. Find specific whole school, classroom, and parent activities in our Waste-free lunch toolkit. Use composting to reduce food waste. Learn about worm farming in our fact sheet. Discover how to set up a fridge worm farm.

Enacting change

Waste stream	Actions	Resources and further information
Soft plastics such as zip lock bags and cling wrap	Many WasteSorted Schools are now collecting soft plastics to be recycled at REDcycle. These soft plastics are recycled into new products such as park benches. Some schools encourage families to look at ways to avoid the use of single-use plastics. A great way to do this is to share examples of other families using alternatives such as reusable containers and beeswax wraps. Some schools reduce waste by creating a Green Canteen.	Find specific whole school, classroom, and parent activities in our waste-free lunch toolkit. Make beeswax wraps in class for every student to wrap snacks and sandwiches in. Set up a Green Canteen. Start a RedCycle soft plastics recycling station. Use a new colour like purple for your soft plastics collection bin to prevent confusion with the bin colours used at home.
Drink containers	Sustainable schools avoid Tetra Paks and wasteful beverage containers by switching to bulk-buy options and reusable cups. This saves money and reduces waste. Other schools recycle this waste stream by setting up a Containers for Change collection point in their school. You can collect eligible containers and use the money to fundraise for your sustainability programs!	Set up a Green Canteen. Find specific whole school, classroom, and parent activities in the waste-free lunch toolkit. Lean about Containers for Change. (See their Q&A webinar for more info.)
Recycling	Several schools have successfully set up recycling bins in their school yards or staff rooms. You can also collect items to use in art and craft.	See the recycling services for WA Government Schools factsheet for information about recycling services. Read the common use arrangement buyers guide for agency staff procuring waste disposal and recycling services.
General waste	We suggest looking at what is in the general waste bins and discussing which items can be avoided or changed to reusable items in the school. Many schools are removing straws and single-use cutlery from their canteens. They are encouraging staff and students to use reusable cups and drink bottles and create a Green Canteen.	Set up a Green Canteen.

Resources

Waste audit sorting categories cheat sheet

- **Yellow:** these items can easily be recycled in a kerbside recycling bin.
- **Green:** these items can be earth-cycled by composting or using worm farms or chickens, food collection services, FOGO bins or bokashi bins.
- **Red:** these items should be avoided as they are destined for landfill. Some items can be collected for special recycling collections.
- **Grey:** an additional category to see how many beverage containers you could be collecting for Containers for Change.

Please note, there is no collection for garden waste (organic plant materials), steel or glass in this toolkit. These items are rarely found in WasteSorted Schools waste audits so they have been removed as a category. If you find the above items, either add them to your data sheet as an extra category or remove them from the waste auditing station.

Fruit and vegetable scraps

- Only put food scraps which are fruit or vegetable into this tub (e.g. left-over salad, half eaten fruit, vegetable sticks).
- Do not include whole fruit or vegetables as they go in the whole fruit tub.
- Do not include scraps that aren't fruit or vegetable into this tub (e.g. bread, pasta, meat, yogurt) as they go in the food scraps tub.

You can save this waste from landfill by earth-cycling!

Food scraps

- Pieces of food which are not fruits or vegetables (e.g. bread, meat, cheese, pasta, pizza, popcorn, chocolate bars).
- Do not include whole fruit or fruit and vegetable scraps as they go in the whole fruit tub.
- Do not include food that is completely packaged and unopened, such as an unopened muesli bar or unopened wrapped sandwich. If the food has been opened but is still in the packaging, empty the leftovers into the food scraps tub and put the packaging into the relevant category (soft plastics, snack wrappers, etc.).

Whole fruit

- Untouched fruit, such as a whole apple or banana.
- Do not include fruit or vegetable scraps.
- If a piece of fruit has a small bite taken out of it, you can include it in this category.

Paper and cardboard

- Put dry cardboard and paper into this tub (e.g. office paper, envelopes, and cardboard boxes).
- Do not add tissues or kitchen wipes; they go into the general waste category.
- Do not include paper or cardboard contaminated by food or liquid. Contaminated items will make other pieces wet and dirty – add them into the general waste category instead.
- Do not include shredded paper or paper torn into small pieces as this is too small to be collected by the recycling process.

Plastic bottles and containers

- Only include plastic containers that are empty of food, clean and dry (e.g. sushi trays or fruit trays).
- If the plastic container is contaminated by food (e.g. a half-full yogurt container), it goes into general waste.

Aluminium cans and foil

- Clean aluminium cans (emptied of liquids into the liquid bucket first).
- Aluminium foil as long as it is not contaminated with food.
- If there is aluminium foil wrapped around food, unwrap the food and put it into the appropriate food tub and place the aluminium into this tub.
- Heavily contaminated aluminium goes into general waste as it cannot be recycled.

Resources

Liquid paperboard (LPB) cartons

- Often used for milk containers.
- These can be recycled in the kerbside bin at home and school.
- These can also be collected in Containers for Change for the 10-cent refund for flavoured milk only.
- Empty liquids into the liquid bucket first.
- **People often confuse LPB and Tetra Pak containers, so review these tubs with students.** LPB cartons do not have a silver lining like the UHT or Tetra Paks.

Whole packaged (unopened) food

- Unopened food that is fully wrapped in plastic or packaging (e.g. untouched cut-up fruit in a ziplock bag, unopened yogurt, an unopened bag of chips).
- This waste stream is separate from the other organic food collection tubs as it can be avoided.
- Students typically throw this type of food away when they dislike food options packed by their carer but do not want to tell them. Discussing that it is okay to talk about food preferences with parents and students will help reduce this waste stream.

Tetra Pak (silver lining)

- Often used for juice or long-life milk (UHT).
- Multilayered beverage container consisting of cardboard, plastic and aluminium. They are silver on the inside and easily recognisable by the silver hole on top for the straw. Cut them open to show the silver inside.
- Their complex layers mean they are difficult and costly to recycle.
- Currently they cannot be recycled in Western Australia and go in the general waste bin at home and school.
- To reduce waste contamination and landfill, these are collected by Containers for Change and sent to a specialist international recycler. If you have a Containers for Change collection point at school, please educate your students about collecting them and not using general waste for disposal.
- We recommend students AVOID this type of waste due to the amount of waste (straw, straw wrapper, hard-to-recycle Tetra Pak container, plastic wrapped around box) and use the easy alternative of bulk buying juice and refilling a container.

Plastic bags

- Includes plastic bags, cling wrap, or zip lock bags.
- These can be taken to a REDcycle point at participating supermarkets for specialist recycling.
- Test for soft plastics using the scrunch test. If it scrunches down, it is soft plastic and should be in a different tub. Plastics need to be clean and not contaminated by food.
- If open and containing food, empty food into the relevant category.
- We recommend students AVOID this waste stream as there are easy reusable alternatives.

Snack wrappers

- Includes all soft plastic snack wrappers (e.g. lolly wrappers, chocolate wrappers, chip packets, biscuit wrappers, yogurt tubes, ice cream wrappers).
- Does not include hard plastics such as plastic bottles and plastic containers. If confused, try the scrunch test on packaging. If it scrunches down, it is soft plastic.
- For silver-lined wrappers, if it stays scrunched, it is made of aluminium and goes in the aluminium category. If it un-scrunches, it is plastic and goes into the snack wrapper category.
- If the snack wrapper has been opened and contains food, empty the food into the food scraps tub and put the empty snack wrapper in the snack wrapper tub.
- We recommend students AVOID this waste stream.
- The contents of this tub can be taken to a REDcycle point at participating supermarkets for specialist recycling.

Resources

General waste

- Includes everything else found in the waste audit (e.g. wet paper, plastic cutlery, coffee cups and lids, tissues and napkins, clothing, small plastic lids, straws, food covered plastic, pop sticks).
- If an item belongs to another category but is too dirty to be recycled, place it in general waste.
- **Does not include hazardous waste such as batteries, paints, nail polish and aerosols.** These need to be dropped off at a hazardous waste collection point to prevent harm to the environment. Keep these separate and discuss with students.
- Find more information about household hazardous waste here.

Containers for Change

- Optional category.
- The Containers for Change litter prevention and recycling scheme was introduced in Western Australia in October 2020.
- Use this category if you collect containers at your school or if you are interested in starting a collection.
- Only audit containers in your landfill bin. Do not add containers you have already separated, as you are trying to find out how many containers you can still divert from landfill.
- Containers that go into this category include plastic bottles, glass bottles, aluminium drink cans, LPB flavoured milk cartons, and Tetra Paks. Visit Containers for Change for a full list of accepted containers.
- Do not include coffee cups or plastic cups.
- Do not include white milk containers.
- We recommend you try to AVOID this waste stream first through bulk buying beverages and using reusable containers.
- Tetra Paks can be collected for Containers for Change; however, they cannot be recycled through your recycling bin at home. This can confuse students (see Tetra Pak category for more information).

Waste audit excel spreadsheet

Waste audit data sheet

Waste audit signs

Walga 2020, Regional councils, available from: walga.asn.au/About-Local-Government/Regional-Councils, accessed 8/10/2021.

City of Melville 2020, What is the 3-Bin FOGO system, available from: www.melvillecity.com.au/waste-and-environment/waste-recycling-fogo/3-bin-fogo-system/what-is-the-3-bin-fogo-system, accessed 8/10/2021.