



Little Green Steps

Western Australia

Reducing Waste Together

*little green steps towards becoming
waste wise in the early years*



An early years waste resource kit by Little Green Steps WA



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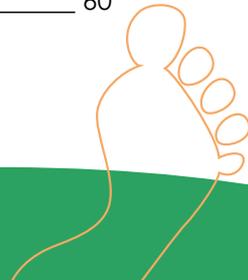
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Welcome to the Reducing Waste Together kit



Lanell Mayberry and some of her prekindergarten class pose with their recycling project Rachel, a full sized robot made entirely of recyclable products. Image credit: Cpl. Thomas Bricker via Wikimedia Commons (Public Domain)

The purpose of this kit is to help you learn about the problems created by waste and to inspire and resource you to reduce the waste produced by your early childhood service. This resource kit has sections to help broaden your understanding and background knowledge as well as sections to help you engage the children and adults from your service in waste reduction efforts. In the kit you will find:

- information about waste – what it is and the consequences of waste;
- case studies – real life examples of how other services are reducing their waste;
- suggestions for reducing waste in different areas of your service;
- a guide to making a waste reduction action plan for your service - learning more, a sample plan, identifying and addressing barriers to change, monitoring progress, evaluating outcomes;
- links to the Early Years Learning Framework (EYLF), National Quality Standard (NQS), Australian Curriculum and Western Australian Curriculum and Assessment Outline;
- resources and activity ideas for helping children to learn about reducing waste.
- a list of links to information about recycling services in each Western Australian council;
- other useful resources - a list of waste dates to recognise, useful contacts, a list of online resources for learning more, and a list of young children's books.
- Also on this USB drive is a folder of Waste Wise Schools resources that are appropriate for early years services such as fact sheets and clip art.

Good luck on your journey to reduce waste!

Who created this kit?

This kit is the product of a partnership between Little Green Steps WA and the Waste Authority. The partnership between the two organisations was formed to build on the strengths of each and create an early childhood resource that is compatible with existing school resources.

Little Green Steps WA (LGSWA) is a not for profit program of the Australian Association for Environmental Education, WA Chapter (AAEEWA) that supports Early Childhood Education for Sustainability (ECEFS) in Western Australia. This includes supporting childcare centres, preschools, primary schools, family day care, in-home care, kindergartens, after school care and long day care services for children aged 0-8 years.

Little Green Steps WA is working together with an extensive range of educational resources, networks and local communities towards our common goal of giving children the confidence and skills to have a positive impact on their lives and their environment.



This project is supported by the **Waste Authority** through the **Waste Avoidance and Resource Recovery Account** with assistance from the **Waste Wise Schools Program**.

This kit was compiled through the adaptation of Waste Wise Schools Program materials to suit the Early Years context. LGS WA would like to thank Waste Wise Schools, a program of the Waste Authority, for making their materials available.



The **Waste Wise Schools Program** provides teachers and other school representatives with professional development, curriculum materials and support for schools to help plan, implement and maintain waste-minimising projects such as recycling, composting and worm farming. The program helps schools set up infrastructure and provides resources aimed at changing attitudes and behaviours with regard to sustainable waste management. The program is free and available to all schools in Western Australia.

This kit was written by Kylie Hosking and edited by Paula Kalinowski, Amy Krupa and Elaine Lewis.

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- The Waste Wise Schools team: Wendy Aspden, Meg Greenhill, Patrick Hamill, Gemma Heenan, Jennifer Weston and Cara Williams
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- Trichelle Edwards, Dardanup Primary School
- Lisa Green, Lisa Green Family Day Care
- Lauren O'Connell, Port Headland Out of School Care
- Kath Finney and Natasha Browne, Goodstart Early Learning Merriwa
- SERCUL – South East Regional Centre for Urban Landcare



SUSTAINABILITY

When we act to reduce waste we are considering one aspect of sustainability but it also encompasses many other parts. Sustainability is often defined as **meeting the needs of the present without compromising the ability of future generations to meet their own needs**¹. Another way to describe sustainability, which emphasises the connections between people and environment, is: **enough for all forever by caring for self, place and others**².

Sustainability involves thinking about how we can use the world's resources carefully so they can be used by people all over the world now and will still be available in the future. Also, it includes changing our actions to have a positive impact on our environment and other people.

Early Childhood Education for Sustainability

Taking an Early Childhood Education for Sustainability (ECEfS) approach includes integrated learning and teaching activities where children can learn in, from and about nature³, discovering connections between people and environment and the impact people's actions can have on natural systems. Children are encouraged to think about the future, their ideas are valued and they can suggest solutions for real world problems.

It also requires a whole of service approach where sustainability is a 'frame of mind'⁴, and informs how a service is run, how daily activities occur, how staff are managed, how staff interact with children, and communication about why things are done in a particular way. It is important that children see that sustainability is not just something they are told about but is part of the culture of the service.



Image credit: [Toddler with dandelion](#) Creative Commons License [CC BY-ND 2.0](#)

¹ <http://www.un.org/documents/ga/res/42/ares42-187.htm>

² Mackenzie, C. 2012. QLD Sustainable Schools project. Global Education Conference, Brisbane.

³ <http://eprints.qut.edu.au/32257/1/c32257.pdf>

⁴ <http://trumpeter.athabasca.ca/index.php/trumpet/article/view/115/120>





SUSTAINABLE SCHOOLS WA

Sustainable Schools WA is a whole-school planning framework for Education for Sustainability (EfS) that has been developed by schools and organisations that assist schools to act for sustainability. Sustainable Schools WA provides excellent tools to help schools plan their sustainability actions.

The footprint and handprint tools have been adapted for an early childhood setting and can be used for considering how a service can reduce their ecological footprint and increase their social handprint. Each toe and finger describe an aspect of sustainability and there are many links between the fingers and toes. For example, a community gardening project might help a service to reduce waste by providing locally produced food, and composting food

scraps, reducing their ecological footprint. Children and educators may also meet and learn from members of the community who are experienced gardeners and this would increase their social handprint. Working and playing outside may also contribute to children's wellbeing, increasing their handprint further.

See the footprint and handprint below. Also included in the kit are footprint and handprint posters that can be printed out for display.



Australian
Sustainable Schools Initiative

A Partnership of the Australian Government, the States & Territories





WASTE, REDUCING, REUSING AND RECYCLING

What is waste?

The term waste refers to items that are not wanted or have no use. People may disagree about what is waste as some people may see a use for something that others don't see.

In the natural environment there is no such thing as waste. Something that is discarded from a plant or animal will become food or fertiliser for something else. For example, leaves that fall from trees will be transformed by worms or micro-organisms into soil that provides nutrients to trees and plants growing in the area.

Waste is produced in our homes and early childhood services (solid waste) but also when the goods we used are produced, stored and transported (commercial waste.) The choices that we make when choosing what products to buy and how we use them can affect how much both solid and commercial waste are produced.



Product life cycle, consumption and waste

Often when we buy a product little thought goes to where the product came from, what resources were used in the process and what happens when we no longer need it. By examining the product lifecycle we can learn a great deal about the impact of our consumption habits and rethink our choices.

In traditional views of a product 'life cycle', a material is extracted from the earth, manufactured, distributed, consumed and then disposed of. This system is damaging as it does not take into account our limited natural resources, the waste that occurs along the product system and the waste management issues at the end. See the diagram on the next page to explore some of these issues.

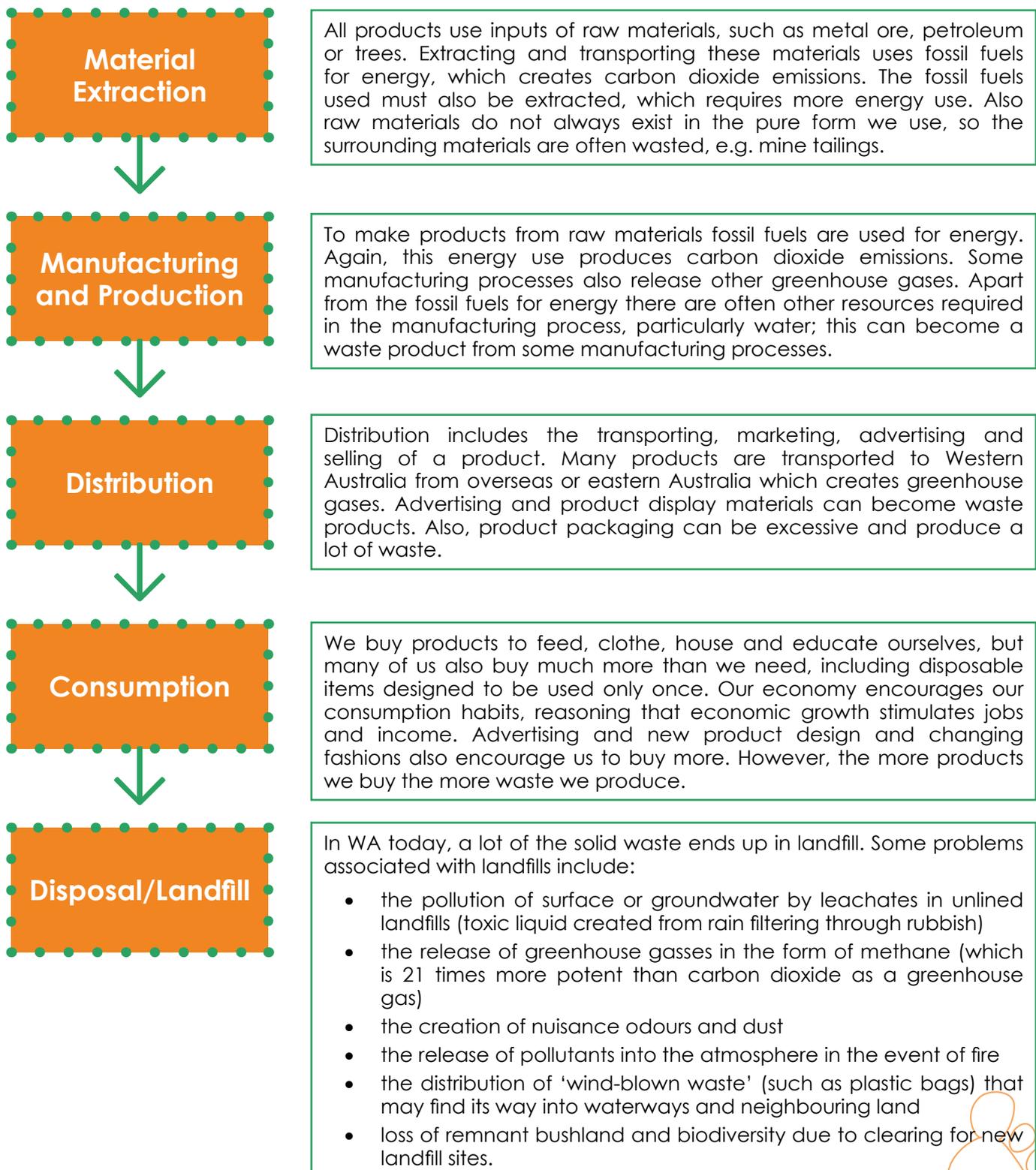
Learning Activity: Durability

Talk with children about which of their toys last for a long time and which break easily. Why do some break more easily than others? Discuss how you can reduce waste by choosing toys made of durable materials that will last for a long time.





Waste produced at different stages of the product lifecycle

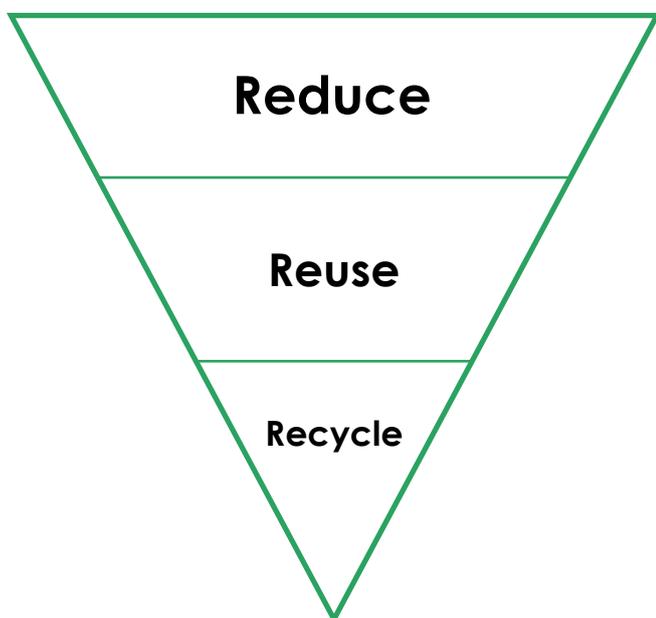




Reduce, Reuse, and Recycle (the 3Rs)

The 3Rs are an alternative to landfill. They also act as a simple guide to help everyone minimise waste at early learning services, schools, and home. When dealing with waste, it is important to address it in the right order. First reduce, then reuse and finally recycle. This is the most effective way to conserve resources and save energy and transport costs associated with dealing with waste.

The Waste Hierarchy

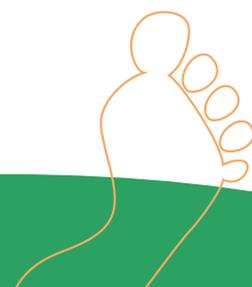


Reduce: Decreasing the amount of waste generated; e.g. Buying fewer products, buying in bulk and purchasing items with less packaging.

Reuse: Finding alternate uses for products when they have served their original purpose; e.g. using one-sided printed paper to make notebooks

Recycle: Collecting used products to be converted into new products; e.g. plastic milk bottles can be recycled into new milk bottles, detergent bottles, pipes, crates, rubbish bins and outdoor furniture.

This is a simplified version of the Waste Authority's Waste Hierarchy which is based on the Waste Avoidance and Resource Recovery Act 2007 (WARR Act) in WA as well as national and international legislation. It is recognised as important in providing guidance to the analysis of the environmental, economic and social impacts of waste management options. For more information about the complete model go to the Waste Hierarchy page on the [Waste Authority](#) website.





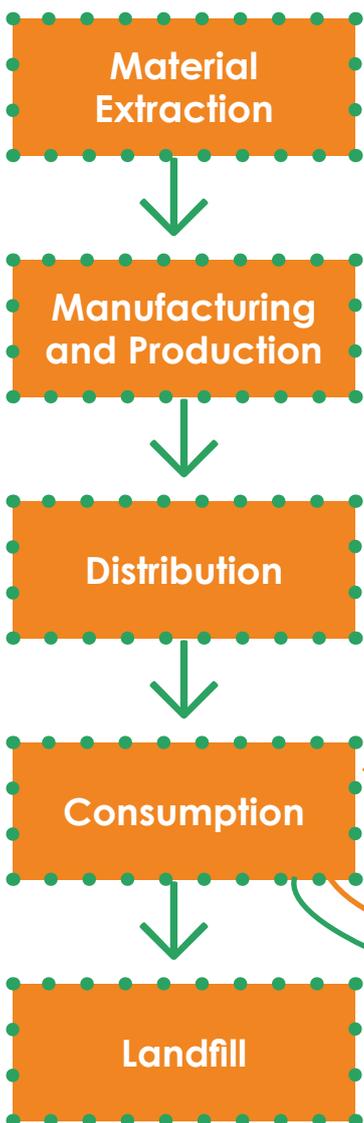
Reducing, Reusing and Recycling in the product lifecycle

If we approach the product life cycle from a sustainability perspective, our priorities are to conserve our precious natural resources and make the best use of those we extract with as little waste as possible. We can do this with the 3R philosophy. Reduce, reuse and recycle interrupt the linear product lifecycle and reduce the amount of waste going to landfill.



Reduce

Reducing consumption is the most effective way of minimising waste. This can be done by buying only what is needed, refusing giveaway items, investing in longer lasting, quality materials and buying locally made and recycled products. When people buy less, there is less waste produced throughout the whole cycle.



Reuse

Finding new ways to use items or buying second hand products keeps them out of landfill and uses less energy and other resources than recycling. Buying second hand products can also save money for the purchaser and make money for charity groups.

Recycle

While manufacturing recycled products still requires energy, fewer raw materials are necessary so less greenhouse gas emissions are produced. For products made of wood or paper, recycling reduces the need to cut down trees, increasing carbon sequestration (re-absorption of carbon dioxide and storage of carbon) in forests. A large amount of water can also be saved by recycling many materials. Often there is more water used in manufacturing the raw material than in recycling it. Composting food scraps in homes and early childhood services or organic materials by local councils is considered a form of recycling.



BENEFITS OF REDUCING WASTE IN EARLY CHILDHOOD SETTINGS

Why think about waste in early childhood services?

There are many benefits to having adults and children in your service learn about the consequences of waste and act to reduce the amount of waste produced at the service.

Benefits for children at your service



The [United Nations Convention on the Rights of the Child](#) recognises that children should be active participants in all matters affecting their lives. The EYLF and NQS both also recognise the need for children to develop their sense of agency and to influence events in their world. The results of excessive waste production will certainly affect children's lives, through a degraded environment, unless many people, including children, choose to change their practices in order to reduce waste.

When young children are in an environment that is focussed on reducing waste, and when they learn about it themselves they will develop life skills that will be useful to them as adults. Considering the issue of waste gives children opportunity to develop their own opinions and initiate actions that have tangible outcomes (less waste produced and less waste going to

landfill). Older children will be able to see that they contribute to their world when they are supported to reduce waste at their service and transfer these skills and knowledge to their home lives.

Benefits to the environment

Reducing, reusing and recycling waste means that fewer natural resources (such as minerals, wood and other plant materials) are used to make new products. Natural resources, as part of ecosystems, are important for providing animal habitats and also play the role of cleaning air and water. Many people also believe that they are also inherently valuable for their beauty.

Before a product is purchased energy is used: during production, storage and transport. When we avoid purchasing new products by choosing second hand or recycled instead, we save energy and reduce associated greenhouse gas emissions.

In landfills, organic materials break down without oxygen and produce methane, a greenhouse gas that contributes to climate change. By diverting waste from landfills we can reduce the amount of methane produced, as well as minimise the amount of land required and the potential contamination of nearby land and waterways.





Benefits for all the people involved in your service

Waste can provide a topic that is easy to integrate into the curriculum, linking to different Learning Areas. Young children are often very interested in rubbish bins and rubbish trucks and can be enthusiastic and motivated to learn about waste, which is relevant to their lives.

Staff and families can feel a sense of achievement about working together towards a more sustainable future.

When educators, other service staff and families are disciplined about bringing fewer new items and products into the service, there will also be less storage space required and this will lead to a less cluttered work environment.

Benefits to other people

The impacts of consumption and waste are global and therefore the reduction of waste can provide benefits for people both near and far from you. Some examples are less pollution for those who live near landfill sites or waterways; reduced future impacts of climate change such as variable weather and more frequent and

stronger storms; and lower food prices due to less food waste¹ (especially important for people living in poverty.)

Benefits for your bank balance

Acting to reduce waste in your early childhood service can save money in a number of ways. When you choose not to buy a product, buy second-hand, or repurpose something you already own you are saving money. Also, buying items in bulk, when possible, can save money as well as producing less waste.

If your service has a skip bin for rubbish collection (large services or schools), you may save money by recycling or composting appropriate waste. It is cheaper to pay for waste to be recycled than to send it to landfill and doing your own composting can be free.



¹ <http://www.worldbank.org/content/dam/Worldbank/document/Poverty%20documents/FPW%20Feb%202014%20final.pdf>



CURRICULUM AND STANDARDS LINKS

Waste Links to Curriculum, Learning and Standards Documents

Early childhood curriculum, learning and standards documents recognise that learning about and reducing waste, along with other education for sustainability initiatives are of great benefit to children. Highlighted below are areas in the documents where learning about waste can most contribute to meeting learning outcomes and standards. Hyperlinks within the

text will take you to many resources (lesson plans, websites, videos and information) to assist with planning learning activities and environments.

WA Curriculum and Assessment Outline and Australian Curriculum: Note that some learning areas are still awaiting final endorsement and the content descriptions used are correct at the time of producing the Kit. To view the content description on the curriculum websites click on the content description number, shown in brackets.

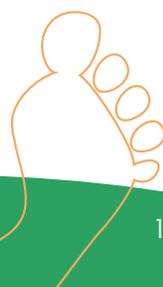
National Quality Standard

Standard	Element	Link to waste
3.3 The service takes an active role in caring for its environment and contributes to a sustainable future.	3.3.1 Sustainable practices are embedded in service operations.	These two separate elements show the importance of both helping children take action to reduce waste (and other actions that contribute to a more sustainable future) and running the service in a way that is consistent with this. For example, it is important to talk with children about reducing being the first step in waste minimisation, before reusing and recycling; and also to take steps to reducing waste associated with any goods the centre needs by buying second hand and with minimal packaging.
	3.3.2 Children are supported to become environmentally responsible and show respect for the environment.	
6.1 Respectful and supportive relationships with families are developed and maintained.	6.1.2 Families have opportunities to be involved in the service and contribute to service decisions.	Families can be a useful resource for early childhood services and may have many suggestions, based on their cultural backgrounds or other knowledge, for ways to reduce waste or source pre-used/second hand materials. Family members can be members of any waste reduction committees that are set up. Children may also share what they learn with their families, changing home behaviours and creating extra environmental benefits.
6.3 The service collaborates with other organisations and service providers to enhance children's learning and wellbeing.	6.3.4 The service builds relationships and engages with the local community.	Learning about waste provides many opportunities to partner with community members and organisations such as waste educators from local or regional councils, local sustainability organisations, schools, community garden groups and charities. Some examples are collecting aluminium to raise money for Wheelchairs For Kids , cleaning up local areas by participating in Adopt-A-Spot or becoming a local collection point for batteries for recycling.



Early Years Learning Framework

Learning Outcome	Component	Link to waste
2. Children are connected to and contribute to their world.	Children develop a sense of belonging to groups and communities and an understanding of the reciprocal rights and responsibilities necessary for active community participation.	Educators and children can explore the idea of reducing waste and litter as responsibilities to their local community. Some books that can be used to support this theme are: Belonging , Michael Recycle , The Day the Trash Came Out to Play
2. Children are connected to and contribute to their world.	Children become socially responsible and show respect for the environment.	Children can learn about what sorts of natural resources are used to create some products they use and how waste created by humans affects the environment – as marine and land pollution and through climate change. When they have ideas about how to reduce the amount of waste they produce they are showing respect for the environment.
1. Children have a strong sense of identity	Children learn to interact in relation to others with care, empathy and respect.	Talking about reducing waste to benefit future generations and those whose homes or local environments are affected by pollution caused by waste can give educators an opportunity to model caring for others, even if they're not people they know personally. All the Way to the Ocean , The Three Rs , and Uno's Garden are resources that may assist with these ideas.
4. Children are confident and involved learners	Children develop a range of skills and processes such as problem solving, inquiry, experimentation, hypothesising, researching and investigating.	Children can build and practice problem solving and inquiry skills through questioning where their waste goes and finding out ways that they might reduce the amount of waste they produce.
4. Children are confident and involved learners	Children transfer and adapt what they have learned from one context to another.	Educators can help children connect their learning about reducing waste from one part of the service to another (e.g. how ideas about reducing waste in the kitchen might also be useful when reducing waste in play areas) or to their homes.
5. Children are effective communicators	Children engage with a range of texts and gain meaning from these texts.	Waste reduction posters, books and rhymes can be used at the service and educators can discuss these with children.





WA Curriculum and Assessment Outline and Australian Curriculum

Cross-Curriculum Priority	Organising Idea	Link to Waste
Sustainability	2. All life forms, including human life, are connected through ecosystems on which they depend for their wellbeing and survival.	Students can learn that the raw materials in the products they use begin as part of ecosystems. When students learn about composting and worm farming they can consider the connections made with other life forms.
	3. Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems	Educators can use products that people use and the associated waste as examples to help students see the ways different systems are connected; e.g. wheat: farmers grow wheat crops to make a living (economic systems) Products made from wheat help to keep us healthy and are part of some celebrations (flour used in Christmas puddings, Easter hot-cross buns, Diwali puri, Haleem for Eid) (social systems) Herbicides and pesticides used when growing wheat can damage the environment, products made from wheat can have excess packaging, which can lead to more landfill if not recycled. (ecological systems)
	7. Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.	Students can consider reducing waste and litter as a responsibility to their community. When they learn more about environments they can understand the impact that waste can have. Tangaroa Blue resources will be useful in looking at the effect of waste on marine environments.
	8. Designing action for sustainability requires an evaluation of past practices, the assessment of scientific and technological developments, and balanced judgments based on projected future economic, social and environmental impacts.	There are many factors for students to take into account when they suggest actions to reduce waste and educators can assist them to research what has worked in other places and what other people already know about waste reduction. For example, students can ask parents and older school students what they know about reducing waste. The case studies in this kit may also be useful for this purpose.





General Capability	Organising Element	Link to Waste
<u>Critical and creative thinking</u>	<ul style="list-style-type: none"> Inquiring – identifying, exploring and organising information and ideas Generating ideas, possibilities and actions Reflecting on thinking and processes 	Students can pose questions about waste, consider alternative ways to acquire products and reuse waste, seek solutions and put <u>ideas into action to reduce waste</u> . They can also transfer knowledge about reducing waste from school to home.
<u>Personal and social capability</u>	<ul style="list-style-type: none"> Social awareness Social management 	Students can make decisions about how to dispose of waste and can describe how they help reduce waste at home and school.
<u>Ethical Understanding</u>	<ul style="list-style-type: none"> Exploring values, rights and responsibilities 	Students can consider reducing waste as a responsibility to their community.
<u>Literacy</u>	<ul style="list-style-type: none"> Comprehending texts through reading, listening and viewing Composing texts through speaking, writing and creating 	Students can gain information about waste reduction by reading, listening and viewing. They can share their knowledge and solutions by composing texts.
<u>Numeracy</u>	<ul style="list-style-type: none"> Estimating and calculating with whole numbers Using fractions, decimals, percentages, rates and ratios 	<u>Auditing the waste produced in a classroom or school</u> gives students an opportunity to estimate and calculate the total of a particular type of waste. They can also use proportional reasoning to describe the different types of waste. (For example, there is more paper waste than organic waste.)
<u>Intercultural understanding</u>	<ul style="list-style-type: none"> Recognising culture and developing respect 	Comparing how people <u>in different places</u> and times have dealt with waste can help students to learn from others and consider how people with different backgrounds can have things in common.
<u>Information and communication technology capability</u>	<ul style="list-style-type: none"> Creating with ICT Communicating with ICT 	ICT can be used to collate and share student ideas and plans about ways to reduce waste.





Science Year and Strand	Content Description	Link to Waste
P Science Understanding: Biological Sciences	Living things have basic needs, including food and water (ACSSU002)	Classes that have access to organic food gardens can consider how they can help meet human needs . Students can also consider the needs of worms that break down food scraps.
P Science as Human Endeavour: Nature and development of science	Science involves exploring and observing the world using the senses (ACSHE013)	Students can consider how their senses help them to learn about issues associated with waste. For example, what can they see or smell when waste builds up?
1 Science as Human Endeavour: Use and influence of science	People use science in their daily lives, including when caring for their environment and living things (ACSHE022)	Knowledge of science is used to help us understand the problems waste can cause and can help us come up with solutions at home; e.g. understanding how composting works or why some product packaging is a better choice. Students can learn about such examples.
1 Science Inquiry Skills: Questioning and Predicting	Respond to and pose questions, and make predictions about familiar objects and events (AC SIS024)	Students can pose questions and make predictions about the types and amount of waste they produce at school and at home.
2 Science Understanding: Chemical Sciences	Different materials can be combined, including by mixing, for a particular purpose (ACSSU031)	Recycling can be a useful example to help students investigate mixing materials .
2 Science Understanding: Earth and Space Sciences	Earth's resources, including water, are used in a variety of ways (ACSSU032)	Students can learn about resources that are used in products they use and can suggest ways to conserve resources.
2 Science as Human Endeavour: Use and influence of science	People use science in their daily lives, including when caring for their environment and living things (ACSHE035)	Knowledge of science is used to help us understand the problems waste can cause and can help us come up with solutions at home; e.g. understanding how composting works or why some product packaging is a better choice. Students can learn about such examples.
3 Science Understanding: Chemical Sciences	A change of state between solid and liquid can be caused by adding or removing heat (ACSSU046)	Students can explore how changes from solid to liquid and liquid to solid can help us recycle materials.
3 Science as Human Endeavour: Use and influence of science	Science knowledge helps people to understand the effect of their actions (ACSHE051)	Students can consider the environmental effects of consuming many products and creating a lot of waste . They can also learn about the benefits of waste reduction.
3 Science Inquiry Skills: Planning and conducting	Safely use appropriate materials, tools or equipment to make and record observations, using formal measurements and digital technologies as appropriate (AC SIS055)	Students can use scales to weigh different types of waste produced in their classroom/school.



Geography Year and Strand	Content Description	Link to Waste
<p>P Geographical Knowledge and Understanding</p>	<p>The reasons why some places are special to people, and how they can be looked after (ACHGK004)</p>	<p>Students can consider the impact of litter and waste on places that are special to people and suggest ways to reduce this impact.</p>
<p>P Geographical Inquiry and Skills</p>	<p>Represent the location of features of a familiar place on pictorial maps and models (ACHGS003)</p>	<p>When creating maps of rooms, homes or local areas students can represent recycling bins, rubbish bins, op-shop collection bins, compost bins and worm farms.</p>
<p>1 Geographical Knowledge and Understanding</p>	<p>The natural, managed and constructed features of places, their location, how they change and how they can be cared for (ACHGK005)</p>	<p>Students can find out about areas where local landfill facilities, both active and decommissioned, are located. Contact your local or regional council to find out if you can take students to visit landfill or recycling facilities. (Contact details for all WA councils are in the <i>Council Waste Information</i> document in this kit.)</p>
<p>1 Geographical Inquiry and Skills</p>	<p>Pose questions about familiar and unfamiliar places (ACHGS007)</p>	<p>Students can suggest questions about the impact of waste in familiar and unfamiliar places.</p>
<p>2 Geographical Knowledge and Understanding</p>	<p>The connections of people in Australia to other places in Australia, the countries of the Asia region, and across the world (ACHGK012)</p>	<p>Examples of connections between places in Australia, and Australia and other countries that students can explore are: where the products they use come from and the impacts of their production on local environments; where materials collected for recycling in Australia are recycled. (For example, see page 21 of this document to find out where scrap metals are sent to for reprocessing.)</p>
<p>2 Geographical Inquiry and Skills</p>	<p>Collect and record geographical data and information, for example, by observing, by interviewing, or from sources such as, photographs, plans, satellite images, story books and films (ACHGS014)</p>	<p>Students can find out about product origins from packaging materials, websites and interviewing people from companies who make the product. They can collect data about the waste people at their school produce through observations or surveys.</p> <p>Students can collect information about products that are recycled from books and local government websites and videos.</p>

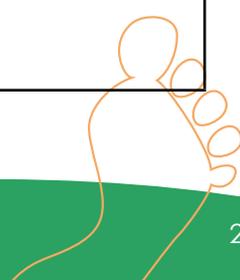




History Year and Strand	Content Description	Link to Waste
P Historical Knowledge and Understanding	How they, their family and friends commemorate past events that are important to them (ACHHK003)	Students can discuss the waste produced during different commemorations such as birthdays, cultural events, and ANZAC Day and suggest ways to reduce this. They can also ask parents and community members about the waste produced at commemorative events. Students can learn about days that commemorate ideas such as Clean Up Australia Day .
1 Historical Knowledge and Understanding	Differences and similarities between students' daily lives and life during their parents' and grandparents' childhoods, including family traditions, leisure time and communications. (ACHHK030)	Students can consider the differences and similarities between the types of waste produced at home during their parents' and grandparents' childhoods and their own.
1 Historical Skills	Pose questions about the past using sources provided (ACHHS033)	Students can ask their parents and grandparents about the waste produced when they were children and ways they avoided or reduced waste .
2 Historical Knowledge and Understanding	The impact of changing technology on people's lives (at home and in the ways they worked, travelled, communicated, and played in the past) (ACHHK046)	Technology from the past and present can be compared by students. Examples of factors to consider include where the technologies were made (and the environmental impact of this) and the waste produced by the production and use of new technologies (e.g. e-waste) Students may also learn about technologies that make it easier to reduce, reuse or recycle products.
2 Historical Skills	Identify and compare features of objects from the past and present (ACHHS051)	Features of objects from the past and present that can be compared including the materials they are made of, their durability and if they can be reused, recycled or composted.
3 Historical Knowledge and Understanding	ONE important example of change and ONE important example of continuity over time in the local community, region or state/territory; for example, in relation to the areas of transport, work, education, natural and built environments, entertainment, daily life (ACHHK061)	Students can learn about how waste has been managed and reduced over time in their local community (e.g. implementation of recycling services and resource recovery, education campaigns to reduce waste). Staff from your local or regional council or local library may be able to give information about this.
3 Historical Skills	Identify different points of view (ACHHS069)	Students can explore community members' different points of view about reducing waste.



English Year and Strand	Content Description	Link to Waste
P Language	Understand that texts can take many forms, can be very short (for example an exit sign) or quite long (for example an information book or a film) and that stories and informative texts have different purposes (ACELA1430)	Teachers can share informational books, such as Let's Recycle , and stories, such as Michael Recycle , with students and discuss the purpose of each book.
P Language	Understand the use of vocabulary in familiar contexts related to everyday experiences, personal interests and topics taught at school (ACELA1437)	Through discussion and use of texts, students can build their waste vocabulary , learning the meaning of words such as waste, reduce, reuse and recycle.
P Literature	Share feelings and thoughts about the events and characters in texts (ACELT1783)	Students can share opinions about waste texts and connect the events in the text to their own lives.
P Literature	Identify some features of texts including events and characters and retell events from a text (ACELT1578)	Students can retell events from stories about waste reduction and talk about what motivated characters.
P Literacy	Deliver short oral presentations to peers (ACELY1647)	Students can make short presentations about how they can reduce waste.
1 Language	Understand concepts about print and screen, including how different types of texts are organised using page numbering, tables of content, headings and titles, navigation buttons, bars and links (ACELA1450)	Teachers and students can look at a website about waste, such as Garbology , and discuss its navigation features. They can also discuss the features in an informative book about waste.
1 Language	Compare different kinds of images in narrative and informative texts and discuss how they contribute to meaning (ACELA1453)	Students can discuss the images in informative and narrative waste texts.
1 Literature	Listen to, recite and perform poems, chants, rhymes and songs, imitating and inventing sound patterns including alliteration and rhyme (ACELT1585)	Students can listen to and recite poems such as Let's Recycle .
1 Literacy	Use comprehension strategies to build literal and inferred meaning about key events, ideas and information in texts that they listen to, view and read by drawing on growing knowledge of context, text structures and language features (ACELY1660)	Students can predict the content of a text about waste by looking at a book cover or the images. They can connect the key information to their own lives.





<p>2 Language</p>	<p>Know some features of text organisation including page and screen layouts, alphabetical order, and different types of diagrams, for example timelines (ACELA1466)</p>	<p>Examples of resources that students can explore to learn about text organisation are local council publications about recycling and videos about reducing food waste.</p>
<p>2 Literacy</p>	<p>Discuss different texts on a similar topic, identifying similarities and differences between the texts (ACELY1665)</p>	<p>Students can compare waste reduction posters from different countries. (Search online for these)</p>
<p>2 Literacy</p>	<p>Create short imaginative, informative and persuasive texts using growing knowledge of text structures and language features for familiar and some less familiar audiences, selecting print and multimodal elements appropriate to the audience and purpose (ACELY1671)</p>	<p>Posters, short stories, PowerPoint presentations, videos and comic strips are examples of texts that students can create to encourage their peers, families or the general public to reduce the amount of waste they create.</p>
<p>3 Language</p>	<p>Know that word contractions are a feature of informal language and that apostrophes of contraction are used to signal missing letters (ACELA1480)</p>	<p>Students can identify correct and incorrect use of contractions in signs about reducing and reusing waste in their community.</p>
<p>3 Literacy</p>	<p>Plan, draft and publish imaginative, informative and persuasive texts demonstrating increasing control over text structures and language features and selecting print, and multimodal elements appropriate to the audience and purpose (ACELY1682)</p>	<p>Students can plan, write, edit and send letters to companies, asking them to use less packaging for products that students have identified to have excessive packaging.</p>





Mathematics Year and Strand	Content Description	Link to Waste
<p>P Number and Algebra/ Patterns and Algebra</p> <p>Number and Place Value</p>	<p>Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings (ACMNA005)</p> <p>Compare, order and make correspondences between collections, initially to 20, and explain reasoning (ACMNA289)</p>	<p>Students can sort the different types of waste produced in their classroom (those that can be reused, recycled or composted) and decide which group contains more or less items.</p>
<p>P Measurement and Geometry/Using Units of Measurement</p>	<p>Connect days of the week to familiar events and actions (ACMMG008)</p>	<p>Teachers and students can discuss which day of the week the rubbish and recycling is collected from their house or school, or which days they take food scraps to the worm farm.</p>
<p>1 Number and Algebra/ Number and Place Value</p>	<p>Count collections to 100 by partitioning numbers using place value (ACMNA014)</p>	<p>Students can count the number of items they will send to landfill before they attempt to reduce their waste and then again later when they have been reducing, reusing and recycling.</p>
<p>1 Statistics and Probability</p>	<p>Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays (ACMSP263)</p>	<p>Students can create drawings or use packaging to represent each type of waste their class has produced at lunchtime.</p>
<p>2 Statistics and Probability/Chance</p>	<p>Identify practical activities and everyday events that involve chance. Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' (ACMSP047)</p>	<p>Examples of everyday events that students can describe as likely, unlikely, certain or impossible are:</p> <p>If we change the way our lunches are packaged we will reduce the amount of waste we send to landfill; Our class will always have to send waste to landfill;</p> <p>We will reduce the amount of waste we send to landfill by half.</p>
<p>2 Statistics and Probability/Data Representation and Interpretation</p>	<p>Create displays of data using lists, table and picture and interpret them (ACMSP050)</p>	<p>Teachers can support students to create tally charts, tables and bar graphs to show the number of students who recycle at home and the number who don't, or waste produced in the classroom that can be reused, recycled, fed to animals or composted.</p>
<p>3 Number and Algebra/ Fractions and Decimals</p>	<p>Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ and their multiples to a complete whole (ACMNA058)</p>	<p>Students can represent fractions using types of waste produced in their classroom and can set goals to reduce some types of waste by a certain fraction ($\frac{1}{2}$, $\frac{1}{3}$, etc.)</p>



3 Measurement and Geometry/Using Units of Measurement	Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061)	Students can weigh the amount of each type of waste produced by their class.
3 Statistics and Probability/Data Representation and Interpretation	Interpret and compare data displays (ACMSP070)	There are many interesting data displays about waste that students can explore and interpret. Examples are about Australian household recycling practices , rubbish collected from public places during Clean up Australia Day , world E-waste disposal and recycling , amount of food waste in different world regions

Design and Technology Year and Strand	Content Description	Link to Waste
Knowledge and Understanding P-2	Identify how people design and produce familiar products, services and environments and consider sustainability to meet personal and local community needs (ACTDEK001)	Students can examine products and discuss how they are produced, packaged, used and disposed of. They can compare the waste created at each stage of the product.
Knowledge and Understanding P-2 Processes and Production Skills P-2	Explore the characteristics and properties of materials and components that are used to produce designed solutions (ACTDEK004) Explore needs or opportunities for designing, and the technologies needed to realise designed solutions (ACTDEP005)	Students can consider the materials and components used in classroom or school waste collection systems and suggest ways to improve the systems to help the class or school to reduce, reuse and recycle more waste. For example, does the school have enough bins for recycling?
Processes and Production Skills P-2	Sequence steps for making designed solutions and working collaboratively (ACTDEP009)	Consideration of how materials can be reused to create a product and what will happen at the end of a product's life are examples of criteria for success that students can use in their planning.
Knowledge and Understanding 3-4	Investigate the suitability of materials, systems, components, tools and equipment for a range of purposes (ACTDEK013)	Students can examine the waste issues associated with a range of materials. For example, they can explore the properties of plastic that lead to the production of many disposable products.
Knowledge and Understanding 3-4	Investigate food and fibre production and food technologies used in modern and traditional societies (ACTDEK012)	Students can explore how food technologies such as refrigerators can best be used to keep food fresh and reduce food waste .
Processes and Production Skills 3-4	Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment (ACTDEP017)	Students can compare the amount of waste that would be produced from different design and development options and the potential for reducing waste in the building of a product.



Digital Technologies Year and Strand	Content Description	Link to Waste
Knowledge and Understanding P-2	Identify, use and explore digital systems (hardware and software components) for a purpose (ACTDIK001)	Creating lists of instructions and illustrated displays about how to reduce and reuse materials and how to sort effectively for recycling are examples of purposes for students to use digital systems.
Processes and Production Skills P-2	Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003)	
Knowledge and Understanding 3-4	Recognise different types of data and explore how the same data can be represented in different ways (ACTDIK008)	Students can explore the meaning of symbols such as recycling symbols , plastic identification symbols and tidyman

Dance Year	Content Description	Link to Waste
P-2	Present dance that communicate ideas to an audience, including dance used by cultural groups in the community (ACADAM003)	Students can perform dances to communicate ideas about why and how we can minimise waste.
3-4	Perform dances using expressive skills to communicate ideas, including telling cultural or community stories (ACADAM007)	

Drama Year	Content Description	Link to Waste
P-2	Present drama that communicates ideas, including stories from their community, to an audience (ACADRM029)	Students can present drama to communicate ideas about why and how we can minimise waste or about avoiding disposable items, composting, waste associated with particular products or how some materials are recycled.
3-4	Explore ideas and narrative structures through roles and situations and use empathy in their own improvisations and devised drama (ACADRM031)	





Media Arts Year	Content description	Link to Waste
P-2	Use media technologies to capture and edit images, sounds and text for a purpose (ACAMAM055)	Students can take photographs of items related to waste around their school and arrange the images in order to communicate a message about waste.
P-2	Create and present media artworks that communicate ideas and stories to an audience (ACAMAM056)	Students can create a radio play, advertisement or animation to share their ideas about why it is important to minimise waste.
3-4	Identify intended purposes and meanings of media artworks, using media arts key concepts, starting with media artworks in Australia including media artworks of Aboriginal and Torres Strait Islander Peoples (ACAMAR061)	In identifying the purpose and meanings of a range of media artworks about waste , students consider the implicit or explicit values in the artwork and if they are similar to the student's own values.

Music Year	Content description	Link to Waste
P-2	Sing and play instruments to improvise, practise a repertoire of chants, songs and rhymes, including songs used by cultural groups in the community (ACAMUM081)	Students can sing and play instruments to songs about reducing waste . Students can build their own instruments from recycled materials .
3-4	Practise singing, playing instruments and improvising music, using elements of music including rhythm, pitch, dynamics and form in a range of pieces, including in music from the local community (ACAMUM085)	
P-2	Respond to music and consider where and why people make music, starting with Australian music, including music of Aboriginal and Torres Strait Islander Peoples (ACAMUR083)	Students listen to music performed by the recycled orchestra from Paraguay and discuss where and why the music was made. Also see members of the orchestra performing at a conference in Amsterdam . Students could also listen and respond to No Such Thing as Waste .





WAYS TO REDUCE WASTE THROUGHOUT YOUR SERVICE

How can we minimise waste in our service?

This list is designed to give you some ideas about ways that waste can be reduced throughout the different areas of early childhood services and can be used as part of your waste minimisation planning. However, keep in mind that simply ticking actions off a list will not be the most effective way of developing a culture of waste minimisation. Consider what best fits with your service and, most importantly, look for ways that everyday routines can be adjusted to reduce, reuse and recycle, embedding waste reduction into your practices. Click on the hyperlinks for more information about different topics.

Organisation and systems

Reduce

- Make sure that staff only purchase something if it is really needed. Avoiding the purchase is the best way to reduce waste.
- Buy second-hand products or those made from recycled materials where possible.
- Choose products that can be reused or recycled.
- Buy in bulk and look for items with minimal packaging
- Avoid laminating signage that is commonly changed. Opt for a plastic pocket if necessary

Reuse

- Donate unwanted items in good condition to charities or use [Freecycle](#) or online barter groups to give them away
- Organise swap boxes at your service, where parents can put clothing and toys their children no longer use for others to take.
- Challenge yourself to find new ways to use items.

Recycle

- Find out what your options are for recycling. Can you use a council kerbside pickup or do you need to find a commercial waste

company? What items can be recycled? See the *Council Waste Information and Accessing Recycling Services – Government Schools* document in the Waste Wise Schools resources folder on this flash drive for more information.

- Set up systems to separate and deliver waste to recycling bins, compost bins, chickens (kept at your service or given to a family that keeps chickens), worm farms and for rubbish collection. Involve all staff and children in the set up and running of these systems. Make sure collection containers are available in any place where waste might be created- (kitchens, offices, etc).
- Organise a system for regularly emptying compost and recycling containers.
- Set up collections for recyclable items that families could bring from home. Here's some more information about [battery recycling](#), [cleaning product packaging recycling](#) and [mobile phone recycling](#) or find more ideas in the *Where to Recycle* document in the Waste Wise Schools resources folder on this flash drive. Other useful websites include [Recycle Right](#), [Recycling Near You](#), [Business Recycling](#) and the Waste Authority [Find Local Waste Services page](#).

Recycled item of the week

To help children learn about what items can be recycled, focus on one product that can be recycled each week. Add a picture of the product to recycling signs, tell stories and sing songs about the product being recycled.





Food

Reduce

- Buy in bulk, avoiding items that are wrapped individually.
- Consider if any common food products you buy could be easily made at your service.
- Replace single use items (use rags for wiping counters, washable handtowels instead of paper towel, reusable containers instead of cling wrap/freezer bags, etc).
- Choose items with less packaging.
- Use reusable bags for all groceries, fruit and vegetables.
- Grow your own fruit and vegetables.
- Use recipes that don't require a lot of ingredients or specialised ingredients to avoid buying products that won't be used a lot.
- Serve realistic portion sizes. (This needs to be balanced with the fact that children may not want extra when offered and then could be hungry later. You will need good communication between educators and cooking staff).
- Learn more about [how to best store food](#) to keep it fresh.
- Request that children bring their own reusable drink bottles and remind families to clean these regularly.
- Where children bring their own lunches, educate families about ways to reduce food wrapping waste and hold Waste Free lunch days. Encourage staff to join in. See the *Nude Food* document in this kit for more information.
- Encourage school canteens to ask staff and students to bring a lunch box/mug for their orders.

Reuse

- Reuse packaging for craft or storage.
- [Reuse leftover foods.](#)

Recycle

- For ease of sorting, have well labelled compost, chook food and recycling bins in places where food is prepared and eaten. Use pictures so that young children can also understand the labels.
- Compost appropriate food scraps or incorporate animals or worm farms into your service to break down organic waste (See the fact sheets included in this kit for more information about worm farms and composting).
- Recycle packaging that can't be reused.



Home-grown carrots
Image credit: Abigail Batchelder,
Creative Commons license CC BY 2.0

Bathrooms, toilets and nappy change areas

Reduce

- Buy liquid soap in bulk to reduce packaging or use bar soaps.
- Replace paper towels with washable handtowels.
- Ask parents to send a reusable bag or waterproof bag with children to send any wet clothes home in, instead of using disposable plastic bags.
- Encourage parents to consider the best environmental option for nappies and offer to cater for cloth as well as disposable nappies (Cloth nappies can be bagged up and sent home for washing). The [Education and Care Services National Regulations](#) allow for either to be used in early childhood services.

Modern cloth nappies can be fitted, attractive and quick drying. A [2006 study](#) by the UK Environment Agency¹ found that the environmental impact of cloth nappies could be greater or less than that of disposable nappies depending on how they were used and washed. Cloth nappies that were washed in a full load, line dried and reused for subsequent children had the lowest impact.

Another option is to use disposable nappies that are partly made of biodegradable materials. [Choice](#)² has reviewed a number of more environmentally friendly disposable nappy options and gives some ideas about what to look for when choosing a disposable 'eco-nappy'.

If the waste collected from your service is composted you can wrap used disposable nappies in compostable bags instead of plastic bags.

Reuse

- Reuse old magazine pages to line change mats.
- Use packaging for craft activities or storage.

Recycle

- Make sure there are well marked recycling and/or compost bins in the bathroom (Items made of 100% cotton can be composted).



¹ <http://www.nappyinformationservice.co.uk/docs/SCHO0808BOIR-E-E.pdf>

² <https://www.choice.com.au/babies-and-kids/baby-clothes-and-nappies/nappies>



Play areas

Reduce

- Investigate using a [toy library](#) to reduce toy purchasing.
- Choose toys/play things that can have many uses – such as natural materials, dolls, blocks, craft materials and second hand clothing for dressing up.

Reuse

- Note which toys and other items are played with and donate the rest to a toy library or op shop.
- Repair broken toys, where safe to do so.

Learning and craft activities

Reduce

- Consider redesigning activities (such as those that involve worksheets) so that they don't require paper or use less paper.
- Laminate commonly used worksheets.
- Choose supplies that have minimal or no packaging and are made of recycled materials where possible.

Plastic Lid Art

Plastic lids can be used for imaginative play or to make mosaics, sculptures (as below), pretend money, mobiles or, along with playdough or beads, miniature cakes. Click the link above for more ideas.



Image Credit: Irene Osborne Artist, Creative Commons License CC BY-ND 2.0

- Before having children make something, think about the end of life of the item – will it be able to be reused, recycled or composted? Some craft activities can be temporary, such as nature art, sand sculptures and play dough sculpting. Take a photo of the masterpiece to keep a record.

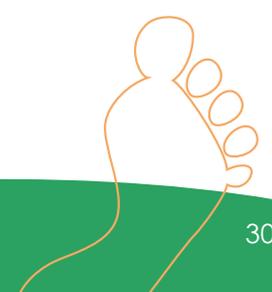


Temporary nature art

- Involve children in efforts to reduce waste. Support these actions by helping children learn why it is important to reduce waste and ways to do this (See learning activity ideas throughout this kit).

Reuse

- Organise a space for collection of materials to be reused for art or craft activities.
- Join [REmida](#) to collect craft materials or buy them from op-shops.
- Collect handouts for reuse.
- Encourage staff and children to use both sides of a piece of paper.
- Offer unwanted books to other services or take to an op shop.
- Teach children basic skills that will help them to repair items as they get older (e.g. basic sewing).



Administration/Office

Reduce

- Review lists of materials children need to bring to school to make sure you are not asking for items that won't be used. Offer [suggestions of materials that can be purchased second hand or are made of recycled materials](#).
- Encourage parents to receive newsletters by email, instead of collecting printed copies
- Use rechargeable batteries in anything that needs batteries.
- Use refillable pens or pencils instead of disposable pens.
- Use paper clips instead of staples.
- If replacing printers/photocopiers choose those that will use recycled paper and copy double-sided.
- Only print when unavoidable and use the draft setting to reduce the amount of ink used.
- Refuse junk mail.
- Maintain office and other equipment to avoid having to replace them.
- Consider ways to reduce waste if fundraising.

Reuse

- Buy products made of recycled materials (e.g. paper, stationery, plastic containers, toilet paper).
- Have a 'reuse paper' collection box in offices or other work places.
- Make notepads from used paper.
- Keep and reuse mail packaging.

Recycle

- Recycle electronic waste and printer cartridges. Find out where at the [Recycling Near You](#) website.

Garden

Reduce

- Source second-hand landscaping materials from Freecycle, Gumtree or tip shops.
- Borrow tools or look for a tool library in your area.

Reuse

- Use old [egg cartons](#) or [toilet rolls](#) to raise seedlings.
- Arrange to return plastic plant pots to the nursery for reuse.
- If you grow excess vegetables, sell or give to parents or neighbours.

Recycle

- Mulch or compost all green waste produced in the school. Use the mulch on gardens instead of buying mulch in.
- Set up vegetable gardens and use worm farm and compost products on the gardens.



Making a worm farm. [Image credit:](#) Spencers Brook Farm. Creative commons License [CC BY-ND 2.0](#)

Celebrations, special events and excursions

Reduce

- Avoid the use of disposable cups, plates and cutlery. If you can't avoid using disposable, buy compostable. If using caterers, request that they do the same.
- Serve fresh fruit or vegetables, homemade food or items that come in minimal packaging.
- Collect old birthday and Christmas cards to use when children wish to make new ones.
- Avoid using balloons as decorations.

Reuse

- Use packaging items for craft activities or storage where possible.
- Reuse packaging and other materials to make decorations.
- Reuse decorations for multiple events.

Recycle

- Help children to collect and sort waste from excursion lunches to recycle and compost.

Reusing cards to make finger puppets

1. Cut a person or animal out of a birthday or Christmas card.
2. Cut a small rectangle out of the back of the card.
3. Roll the rectangle into a cylinder and attach to the back of the character to make a finger puppet.



Image Credit: Mosman Library, Creative Commons License CC BY 2.0

Cleaning

Reduce

- If the service has cleaning staff, make sure they are included in planning ways to use recycled and reusable products and the organisation of composting and recycling systems.
- Reduce the use of bin liners or use newspaper or compostable bags (if your waste gets composted.)
- Buy concentrated cleaning products or investigate using simple items such as [vinegar, lavender oil and bicarbonate soda for cleaning](#) to reduce the number of cleaning products you use and the associated packaging.
- Replace disposable cleaning clothes with washable cleaning cloths. These can even be made out of old clothing or towels.

Reuse

- Reuse appropriate packaging for craft activities or storage.
- Refill and reuse cleaning product containers.
- Organise to return cleaning containers to suppliers for reuse.

Recycle

- Recycle whatever can't be reused. Some cleaning product containers can be recycled with [Terracycle](#).

Reuse Crayons

When you have lots of crayon stubs that are no longer useable you can melt the old crayons down to create new ones. To see some instructions for making new crayons in muffin tins watch this [YouTube video](#). You can also make other shapes by using chocolate and soap moulds.



Image credit: Andrea R, Creative Commons License CC BY-NC-SA 2.0

DARDANUP PRIMARY SCHOOL, KINDERGARTEN AND PRE-PRIMARY CLASS

The youngest students at Dardanup PS have been acting to reduce their waste since teacher, Trichelle Edwards, attended a Waste Wise Schools workshop six years ago.

Waste reduction strategies are built into the everyday routines of the class. Students are encouraged to bring waste free lunches and collect food scraps to take to a compost heap and worm farms. At the request of parents, fruit time is being reintroduced which has the benefits of promoting healthy eating and only producing compostable waste. Another initiative involves students recycling old newspapers to make fire bricks.



A student completing a maths activity with potatoes from the garden. Photo credit: Trichelle Edwards

Children can work in a herb garden which uses the compost and worm castings produced on-site. Many children love the garden and choose to spend their outdoor play time there.

As well as being part of day-to-day activities, waste reduction is a component of students' learning experiences, helping Trichelle to address the Sustainability cross-curriculum priority of the Australian Curriculum and the Physical Environment quality area of the National Quality

Standard. The topic of waste is integrated into Maths, English, Science and Arts learning activities.

The focus on waste in the kindy/pre-primary (K/P) class also extends into other parts of the school. Paper from the school office is shredded and collected for use in the worm farms and compost bins. Some classes bring their own food scraps to the K/P class for the worms and compost and the year 6 class works with their K/P 'buddies' in the garden. Information about the class's activities is shared in the school newsletter and local newspaper, connecting the school with the local community.

Parents support the class in a number of ways – from packing waste free lunches to bringing in newspapers to make the fire bricks and coffee grounds and animal manures to enrich the compost. The parent-help roster includes a rotation in the garden. For a donation, parents can also take home herb garden produce, fire bricks and worm juice from school assemblies. The money earned from this is used to buy provisions for the garden, such as new seedlings, meaning that the waste reduction system is economically self-sustaining.



Dardanup PS students adding fruit scraps to the huge worm farm. Image credit: Waste Wise Schools Program



In other education for sustainability initiatives, the K/P class has been involved in planting, weeding and picking up litter to help rehabilitate an area of local land. Plans for the future include the class getting involved in a community garden and furthering the waste reduction efforts of the entire school.

Trichelle enjoys seeing the number of students who bring waste free lunches rise over the year and knows that the children in her class share their ideas about reducing waste with their families, showing that they can adapt and transfer their knowledge from the school to home context. Her students are developing great habits and carry their actions on into the rest of their primary school years.

To read some case studies about early years services in South Australia click [here](#).

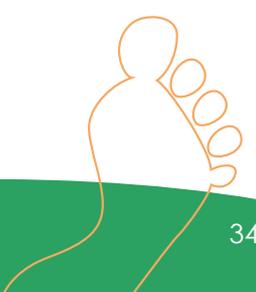
Home Corner Idea

Children may enjoy playing in a home corner set up as a Waste Centre or Materials Recovery Facility (MRF) where they can sort waste into things that can be resold in a tip shop, items that can be recycled, and items that will need to go to landfill. You can get some ideas about how MRFs work by watching [Greenfingers TV clips](#), searching YouTube or talking to a Waste Educator (see the *Useful Contacts* list in this kit.) Alternatively children can build their own Waste Centre from boxes or blocks and toy trucks.



A Materials Recovery Facility

Image Credit: Gene Spesard, Creative Commons License CC BY 2.0



GOODSTART EARLY LEARNING, MERRIWA

Staff at Goodstart Early Learning in Merriwa are committed to educating children about sustainability. Recent efforts towards reducing waste at the centre began with the interests, actions and authentic needs of the children who attend the centre. Here are some examples:

In 2014 educator, Kath Finney, and the children in the pre-school room needed a new piece of furniture for their water station. They decided to go on an excursion to the [Tamala Park recycling centre](#) (tip shop) to find something that would fit their needs. Before their trip they discussed what happens to rubbish that gets sent to landfill and the ways that they already reused items such as food containers for art activities and tyres in the centre garden.



Buying second-hand: Educator, Kath Finney, and children from the pre-school room paying for their purchases at the tip shop.
Image credit: Goodstart Early Learning Merriwa

On arrival, the children could see the landfill site and enjoyed looking around the tip shop. They were able to find a set of shelves that was the correct size for the space available in their room and were also excited to each choose a new book for the book corner. Other opportunities for learning occurred when the children took their items to the counter, paid the recycling officer and helped to clean and set up the new water station back at the centre.

To extend children's learning a waste educator from the Mindarie Regional Council visited the centre and talked with children. Centre Director, Natasha Browne said that the presentation supported children being active participants in the world around them by enhancing their understanding of waste and recycling.

Staff from Goodstart Early Learning collect items that can be reused from op-shops and garage sales as well as asking for donations from the local community. These are used to create artworks and also as loose parts for play as in the following instance of learning about waste reduction.

This example begins with a child attempting to use some old wooden floor boards to build a ramp to drive a toy car down. Encouraged by Kath, several children experimented and created more complex and effective ramps. Building on this interest in the effects of gravity, Kath and the children created a marble run. To make it, they taped a number of boxes together and the children worked together to join a variety of cardboard tubes and plastic bottles (that had been cut in half) to the boxes so that marbles could run through them. During the building process educators and the children discussed how they were reusing their construction materials and preventing them from being sent to landfill.



Reuse: Children learning about gravity with their marble runs made from reused materials.
Image Credit: Goodstart Early Learning Merriwa



Over the next few months it came to the attention of the educators in the pre-school room that the children were using and throwing away quite a lot of paper. The educators used YouTube to show the children how paper is made. They watched trees being cut down to be processed and talked about how animals and people need trees to clean the air. The children suggested ways that they could reduce their paper use, including only using what they need to, using both sides of the paper and making sure that when it is finished it gets recycled.

Further to this, the children learned how paper is recycled, made a chart to remind them of the process and decided to try paper recycling themselves. Assisted by Kath, they took paper from their own recycling bin, tore it up, mixed it, spread it out, squeezed the water out and left it to dry. This provided an opportunity for children to practice grasping and coordination and they particularly enjoyed feeling the changes in texture during the process. Along the way, children related each step of the process to the steps in the industrial process they had learned about.

After the paper had dried over the weekend, the children were amazed at the results but noticed that their paper was quite bumpy. They refined their process and made enough paper for everyone to have some to use for art. They were excited with the result and the class continued to make paper over a number of weeks (For instructions on making paper see [here](#)).

This year the focus on waste has continued with children being involved in [Clean Up Australia Day](#) and reducing, reusing and recycling being part of everyday experiences at the centre.



Trying out recycling: Children tearing up used paper to recycle into new paper.

Image Credit: Goodstart Early Learning Merriwa

Learning Activity: Magnetic Boxes



Fill an old plastic container with reused metal objects such as old keys and bolts. Put on the lid, give children a strong magnet and let them explore what happens when they move the magnet along the outside of the container.

Image credit: AJC CC License CC BY-SA 2.0

LISA GREEN FAMILY DAY CARE

Sustainability is a core theme at the Bibra Lake family day care service run by Lisa Green so it is only natural that reducing waste is part of the everyday activities at the service. Lisa has been running her service for 20 years and has always been mindful of caring for the environment.

Many items are reused at the service with toys and storage materials bought at op shops or made from recycled materials. Parents bring in paper that has been used on one side, egg cartons and boxes that are used for drawing and craft activities. Children at the service are also enthusiastic re-users, coming up with their own ideas about new ways to use items. A recent example of this was a child asking to use egg shells for a painting activity.



Reuse: This table is made from scrap wood and an old tin.

Children learn about the importance and process of recycling through discussion linked to routines, such as washing out and putting empty milk bottles into the recycling bin when they are empty.

To reduce the greenhouse gases produced when food is transported, Lisa uses local foods for children's meals, supplementing organic fruit and vegetables from the garden at the service with purchases from farmers markets. Children who attend the service help to care for the garden, learning about where some foods come from and what plants require to grow. Food scraps are fed to chickens that the children love to play with. The chickens live in the shade of a mulberry tree, which benefits from the natural fertiliser of chicken manure.

It is a particular aim of Lisa's to phase out the use of plastic at her family day care service, so that she reduces what will be sent to landfill. Her kitchenware is made of glass, wood, ceramics and bamboo. As plastic toys and play equipment wear out she is replacing them with wooden alternatives. Where she can't find a substitute for something essential she looks for plastic items that are robust and will last for a long time.



Avoiding plastic: A selection of the wooden toys played with by children at the service.

Other sustainability initiatives at the service include encouraging bees to the garden with a [bee-friendly bird bath](#) and a focus on conserving water and electricity. Lisa believes that acting for sustainability is important for the future of the children she cares for and that if everyone does their part many small actions can add up to a big result.



The chickens eat food waste produced at Lisa Green Family Day Care and are a favourite of the children.

Learning Activity: Exploring packaging

Discuss with children the reasons we choose to package goods; protection of goods, prevention of spills, hygiene, ease of stacking and storing, and product identification. Compare different types of packaging and learn about what happens to packaging when it is no longer required. Visit a supermarket to see what types of packaging are used. Ask children to come up with suggestions for reducing packaging waste. They may even wish to share their suggestions with local shops.



Image credit: Adapted from an image by Scrap this Pack Creative Commons License CC BY 2.0

PORT HEDLAND OUT OF SCHOOL CARE, CHILDREN AGED FROM 4-12

If you visited Port Hedland Out of School Care (OSC) you might be surprised at what you would find in the garden, not just vegetables but old boots, bathtubs, fridges and toilets. They are used as pots for vegetables and herbs as well as for housing worm farms. These materials are all part of efforts to reuse as many resources as possible, minimising the waste produced at the service.



Reuse: Boots and a bathtub being used as garden beds.
Image credit: Port Hedland OSC

Many of the sustainability and waste reduction initiatives at the centre were implemented by previous centre director, Danielle Baker. They are also supported by current director, Lauren O'Connell, who instead of asking where sustainability fits into the service asks "what doesn't involve thinking about sustainability?" Careers Day at the service provides an example of this sort of holistic thinking where children heard from a waste collector, a gardener, a wildlife carer who looks after orphaned joeys and other speakers. Staff are keen for children to reflect on their own practices and consider how they can be part of contributing to a healthy environment for now and the future.

Thinking about waste reduction begins in the administration practices at the service. Payslips are emailed to staff and communication and photos from each day are shared with parents online, reducing the use of paper and printer ink.



Reuse: Upcycled Lego Art
Image credit: Port Hedland OSC

Packaging and other items brought in by parents are used in art activities, as are materials from the OSC service that have already been used for their original purpose. Examples of some recent activities reusing materials include creating a mural made of plastic Lego pieces that are no longer useable and 'wearable art' activities, where children create clothing out of reused materials and model these on a red carpet.

Initially, food is sourced from the service garden. During vacation care programs families are encouraged to send lunches with minimum packaging, using paper products to wrap food if required because the paper can be composted. Children are also encouraged to bring reusable drink bottles over disposable ones. Food scraps are collected each day and blended every few days to be added to the worm farm located in the old fridge. When there are castings ready to collect, they are used to improve the quality of the soil in the vegie garden.



There is no kerbside recycling service in Port Hedland so the centre purchased four bins of their own and use them to separate out items that are then taken by an educator to the local landfill where some items are accepted for recycling. Staff at the service say that if they mistakenly put something into the wrong bin they are soon corrected by the children, showing their ownership of service waste reduction practices.



Reuse: Egg carton picture frame
Image credit: Port Hedland OSC

Port Hedland OSC also has strong connections with their community, through their waste reduction activities. Local businesses donate materials for reuse such as old tyres and boots for the garden. Children and staff participate in [Adopt-A Spot](#), where they collect litter from local beaches and parks, separating the litter according to recyclable and non-recyclable materials as they go. They also have an ongoing relationship with local environmental organisation, [Care for Hedland](#), who have come into the centre to talk to children about protecting a local threatened species, Flatback turtles, including by removing litter.

In the future the staff would like to become even more of a hub for waste reduction by opening a larger reuse centre, inspired by [REmida](#). Here, more businesses would donate offcuts and other items that could then be used by the OSC service, families, schools and community members.

As well as reducing waste, the service also aims to conserve water. Water left in drink bottles at the end of the day is used to water plants. The service also participates in Earth Hour, drawing attention to the need to conserve energy and aiming to reduce their own use. Staff promote local sustainability activities, such as community planting days, in their newsletter. The enthusiasm of the staff at this service to act for sustainability is shared by many of the children who come up with their own suggestions for action. They also share what they have learned at the service with their families and others, giving their influence and actions a reach beyond their immediate surroundings and out into the community.



Recycle: Food scraps are added to the worm farm in an old fridge.

Image Credit: Port Hedland OSC

Learning Activity Wearable Art

Help children to design, make and model an outfit from reused materials such as fabric, paper, cardboard boxes, CDs, plastic flowers, plastic bottles, containers. Click [here](#), [here](#) and [here](#) for some examples.



A PROCESS FOR REDUCING WASTE AT YOUR SERVICE

How can I go about reducing waste in my service?

There is no one road to reducing waste. Your service may have already done much to reduce its waste or you may have only just begun to think about why waste can create problems. You may look at what others have done and think 'We could do that.' or 'No way, that wouldn't work at my service.' Sometimes it may be impossible to avoid using particular waste producing items and still meet regulations. What is important is that you do the best you can with what you've got, continually challenging yourselves to change what you can and designing the waste reduction strategies that will work the best for your service in your situation.

For your plans to be effective, waste reduction can't be an add-on activity or something that staff do just to tick a box. It must be part of everyday routines and be the responsibility of all people at the service. Children's behaviour is influenced by the actions of the significant adults in their lives and they will be more likely to adopt waste minimising practices if they see that all of the adults at their service do this themselves and believe it is important. In addition, if waste

reduction is the task of only one person there is also a strong possibility that plans could fail if that person leaves the service.

As you work through the planning section of this kit and come up with a strategy to suit your service, consider the following principles for success:

- Start small. Little steps can begin a journey to achieve great things.
- Aim for the achievable.
- Make it relevant to the lives of staff and children.
- Provide feedback on the project's progress.
- Involve staff and children in planning and decision-making.
- Involve the whole service community, especially administration staff and parents.
- Make it measurable. This will help with tracking the progress



Activity Idea: Nature's Recyclers

Discuss with children how worms, beetles, insects, fungi and other living organisms break down dead plant and animal materials so they can be used again. Head outside to look for some of nature's recyclers under rocks, leaves, logs and even underground. Remind children to be gentle as they search for small creatures. You may wish to create a temporary visible worm farm. Talk about how children can also be recyclers. For more ideas click on the link above. To find Nature's recyclers cut-outs to use on a storyboard [click here](#).

A process for minimising waste at your service

You may wish to adapt the following process to suit your circumstances.

Build a team

There are benefits to bringing together a group of people to work together to reduce the waste that is generated at your service: responsibility can be shared; there are more people to draw on for ideas, creativity and support; waste minimising efforts are more likely to continue when people leave a service, because there are others to carry on; and a group of people may be more able to overcome any barriers to action than an individual. Your team may involve service management, educators, support staff or parents and you should also ask the children in your service for their ideas and suggestions.

Learn about waste together

Use the information in this kit or the links in the [Resources for learning more page](#) to investigate the consequences of waste and to answer some of the questions you may have. Complete the [Product Life Cycle](#) activity, included in this kit, to consider the waste produced at different stages of a product's 'life'.

Conduct a **Waste audit** (see the instructions document in Waste Wise Schools Resources file on the USB drive) to determine how much waste your service produces. This involves classifying the types of waste found at your service and weighing and counting each type. The results will

enable you to plan how the service's waste can best be reduced, reused and recycled. You can display your goals and plans for everyone to see.

Waste audits can be run regularly to monitor the amount of waste produced and the effectiveness of your waste minimisation activities. This information can be used to provide feedback to everyone involved in the service and community to show that their actions are making a difference, to give the service a reason to celebrate, and to highlight types of waste that need more attention.

Write a waste minimisation plan

The plan can be in a format that is best suited to your service and should be a simple document that can keep your team on track to achieve their goals.

You may wish to choose an area of your service (such as kitchen/bathroom/indoor learning environment) or a type of waste (e.g. paper waste) to begin with. List actions to reduce waste in this area or this type of waste, along with who will carry out these actions, when they will be carried out, when the actions will be reviewed, and people, organisations and resources who may be able to help with the action. (See the [Example waste minimisation plan](#) and [Useful contacts](#) documents for ideas.)

Use the [Planning and evaluation](#) tool in this kit as a prompt to consider ways to help people change their behaviour and to devise ways to overcome any obstacles to change you foresee.





As these actions become part of your service's every-day routines you can add actions for another area of the service or another type of waste.

Write a waste policy

A waste policy is a document that states the service's commitment to minimising waste. It can be a simple document but can also be powerful when it presented to parents and new staff as a guide and inspiration for the service's everyday activities and future priorities. A waste policy can also be used to begin the process of writing a service sustainability policy if you don't already have one.

Monitor, evaluate and celebrate

In order to keep up your enthusiasm and momentum and to make sure your actions are as effective as possible, it is important to plan for reflection, evaluation, change and celebration. These should be part of your ongoing process and although they may take up a little extra time they are vitally important. Reviewing your plans and actions also give opportunities to educate and involve new staff in waste minimisation.

Ways to monitor include:

- Conducting a waste audit every year: have you decreased your waste?
- Calculating worm and compost outputs
- Talking to your waste collection service provider for waste monitoring
- Asking for feedback from children, staff and parents
- Using behaviour and attitude surveys for students, teachers and parents
- Reviewing your original plan

It is important to celebrate your progress no matter how small! Ways in which to do this include having regular snippets in the service newsletter and items about waste reduction efforts at service events. These draw attention to your progress and congratulate the children, staff and parents, helping to reinforce the process.

Learning Activity – Recycling Song

If you help to recycle (Sung to the tune of "If you're happy and you know it")

If you help to recycle, clap your hands.

If you help to recycle, clap your hands.

If you help to recycle, then our earth will surely show it,

If you help to recycle, clap your hands.

Variations: Stomp your feet, Nod your head, Shout "Hurray"

Reproduced with permission from the [Wee Recyclers recycling activity and learning guide for educators and children ages 3-5](#)



PLANNING AND EVALUATION TOOL

Explore the questions and suggestions in each section of this document to consider multiple ways to approach your waste minimisation plan.

<p>Research <i>Understanding the problem</i></p> <ul style="list-style-type: none"> • Do we know how much waste we currently produce (Find out by conducting a waste audit. See directions in the kit)? • What do we know about how we can reduce waste at our service? • Who do we need to educate about waste reduction at our service? 	<p>Education <i>Explaining the problem</i></p> <ul style="list-style-type: none"> • How will we educate staff? Children? Parents? Our community? • Changing our routines and explaining the changes? • Using posters? Books? Guest speakers? • Using statistics? Stories? 	<p>Infrastructure <i>Providing tools to change behaviour</i></p> <ul style="list-style-type: none"> • How will we make it easy for adults and children to reduce, reuse, and recycle? • Different types of bins in locations where waste is produced? • Signage? 	<p>Enforcement <i>Reinforcing the message</i></p> <ul style="list-style-type: none"> • Will we have penalties for not following waste reduction plans? • What will the penalties be? • How will we tell all people involved in our service about the penalties?
<p>Communication <i>Spreading the message</i></p> <ul style="list-style-type: none"> • Are waste reduction and sustainability included in the service's planning documents? • How can we most effectively share our waste reduction message? • Service newsletter? • Signs? • Local media? • Slogans? Artwork? 	<p>Incentives <i>Persuading people to change their behaviour</i></p> <ul style="list-style-type: none"> • Will we reward people for their efforts to reduce waste? • Individual rewards or recognition for staff? Children? Parents? • Celebration events when milestones are reached? 		
<p>Working Together</p> <ul style="list-style-type: none"> • How will we make sure all people involved with our service feel ownership of our efforts to reduce waste? 		<p>Evaluation</p> <ul style="list-style-type: none"> • What criteria will we use to judge the success of our efforts? • How can we build continuous evaluation into our plans? 	

WASTE MINIMISATION PLAN – EXAMPLE

Action	People Responsible	Useful Resources	Deadline											
			Jan	Feb	Ma	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hold a waste themed staff meeting	Director		x											
Read Reducing Waste Together Kit. Conduct waste audit.	All staff	Reducing Waste Together Kit	x											
Form a committee of interested staff	Interested staff			x										
Newsletter article and notice for foyer about plans to reduce waste. Ask for interested parents to join committee.	Admin staff			x										
Join REmida and ask parents to bring in items for reuse	Jodie	REmida			x									
Reuse materials in art projects – each room at least once per week	All educators	Pinterest Red Ted Art blog			x									
Talk with children about actions and integrate into learning programmes	All educators	Reducing Waste Together Kit Cool Australia website				x								
Talk to suppliers about buying in bulk	Admin and kitchen staff						x							
Include update in newsletter - actions so far. Advertise Plastic Free July.	Admin							x						
Find out what recycling services are available and what items can be recycled	Admin	Council waste information document							x					
Place recycling bins throughout centre	Fiona								x					
Ask children for suggestions about how to reduce waste and feed back to committee	All educators									x				
Investigate council assistance to set up a compost system	Brian	Local council sustainability team.									x			
Collect food waste and add to compost	Kitchen staff	Compost fact sheet Gardening Australia website										x		
Review plans and begin planning for next year	Committee												x	
Waste themed item at end of year celebration	Educators													x

PRODUCT LIFE CYCLE PROFESSIONAL LEARNING ACTIVITY

A life 'cycle'?

An activity to help early childhood staff learn more about the waste produced before a product is purchased.



Image credit: [StoryofStuff.org](https://www.storyofstuff.org) Creative Commons License (CC BY-NC-ND 3.0)

1. Begin the activity by watching one or more of the following video clips:

- Story of stuff teaser #2 – Planned Obsolescence: <https://www.youtube.com/watch?v=Jc4yko5WMEc>
- Story of stuff teaser #3 – Work Watch Spend treadmill - <https://www.youtube.com/watch?v=P56-zWupDcl>
- If time permits, one of the full story of stuff videos at <http://storyofstuff.org/>

2. Split into groups depending on how many items you have to explore. Suggested items include:

- a. Mobile phone
- b. Plastic water bottle
- c. Aluminium cans
- d. Any product you use a lot of at your service.

3. Activity instructions: Draw a lifeline diagram on butchers paper or whiteboard.

- a. Extraction
- b. Manufacturing
- c. Distribution
- d. Consumption
- e. And...?

4. Use Waste Wise fact sheets and other information to help you list the waste produced at each stage of the products' life (See the example on the next page).

5. Discuss with your group:

- a. What happens next?
- b. How might you make this more sustainable?
- c. How do you reflect on the idea of a waste hierarchy (Reducing before reusing and then recycling)?

6. Share your insights with other groups.

Materials required:

- Pencils/pens
- Scrap paper, butchers paper or a whiteboard per group
- [Fact sheets](#) or internet
- Items to examine (e.g. phone, water bottle etc.)



Example: Mobile Phone Life Cycle

Extraction

- Greenhouse gases are emitted to produce the energy to extract minerals.
- Mine tailings are produced when minerals are separated from other extracted materials.



Consumption

- Greenhouse gases are emitted when energy is used to charge phones.

And?

- If a phone is used for a long time and not replaced this reduces the waste produced.
- If a phone is repaired this reduces the amount of waste.
- If a phone is recycled, there is still waste associated with manufacturing, transport and distribution. However, it is much more efficient to recover materials from old mobile phones than extract new materials and so less waste is produced.
- If a phone is sent to landfill the valuable materials used to make it are lost. Also, heavy metals can pollute air and water near landfill sites.

Manufacturing

- Greenhouse gases are emitted when materials are transported from all over the world to be manufactured.
- Water can be wasted in the manufacturing process.
- Chemicals can be used and wasted in the manufacturing process.

Distribution

- Greenhouse gases are emitted when phones are transported for sale.
- Waste can be produced when a phone is advertised – greenhouse gases when energy is used to film TV adverts, paper when catalogues used.
- Cardboard, paper and plastic are used for packaging.



RESOURCES FOR LEARNING MORE

There are many resources that you and other staff in your service can use to find out more, provoke discussion about waste we produce and its consequences, and equip you to reduce waste. Some are listed below.

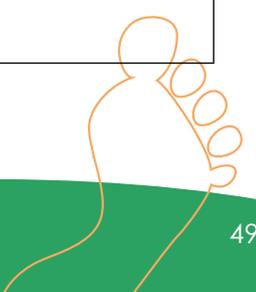
Videos and websites

Some short sections of videos may be useful for showing children.

General Waste			
Name	Description	Length	Link
CERES Sustainability Hub	Waste resources, blogs and case studies are all available here.		http://sustainability.ceres.org.au/waste/
Cool Australia	A toolbox of videos, fact sheets, infographics, news and research articles about waste.		www.coolaustralia.org/ca_topic/waste
Home (trailer)	This visually dramatic special illustrates the planet's fragile state entirely from a birds-eye view in stunning high definition.	Trailer -4 mins Whole movie – 1 hour, 34 mins	Trailer - http://www.youtube.com/watch?v=u_9U4ggqHW8 Whole movie - https://www.youtube.com/watch?v=jqxENMKaeCU&feature=related
Loop scoops – Garbage	A short cartoon on waste.	2 mins	http://www.youtube.com/watch?v=5c5cnM_TdHw&feature=relmfu
Surfing for Change: Where is away?	A look at waste from the perspective of a young surfer/skater.	4 mins	http://www.youtube.com/watch?v=q1Pb6cEC_gw
Trashed - No Place For Waste	Trailer for a documentary about the state of waste in the world.	2 mins	Trailer available at http://vimeo.com/41514228 Full movie available to rent from https://vimeo.com/ondemand/trashed
Turning powerful stats into art	Chris Jordan is a digital artist who aims to use his art to help people comprehend the statistics related to global issues such as waste. Also, check out his art - make sure you click on the images to zoom in and see what they're made up of.	11 mins	http://www.ted.com/talks/chris_jordan_pictures_some_shocking_stats



Waste Deep	Australian documentary on food waste and plastic featuring Two Hands project, Second Bite (redistribute food), Buy Nothing Month and celebrities like Costa and Sarah Wilson.	22 mins	http://www.sustainabletable.org.au/Hungryforinfo/WasteDeep/tabid/144/Default.aspx
Food Waste			
ABC Hungry Beast Food Waste Stats	An animation showing the statistics for food waste.	3 mins	https://www.youtube.com/watch?v=QUt5JP5mwJo
Dive! (Living off America's food waste)	A documentary about living off the food in bins destined for landfill.	3 min trailer	Trailer and DVD available at http://www.divethefilm.com/eat-trash.aspx
Gardening			
Gardening Australia	A special look at waste and how it's actually a valuable resource. Waste in the backyard, a school community, resource recovery and simple solutions.	First 15 mins	http://mpegmedia.abc.net.au/tv/gardeningaus/prog_streams/gardeningaus_ep05_2013.mp4
Litter			
The Majestic Plastic Bag - A Mockumentary	A humorous documentary-style look at the journey of a plastic bag as litter all the way to the ocean.	4 mins	http://www.youtube.com/watch?v=GLgh9h2ePYw&feature=share
Trash my ad 2010 winner (18 – 25 yrs)	A short cartoon on littering.	30 seconds	http://www.youtube.com/watch?v=7yl3tWW9-RY
Trash my ad 2010 winner (secondary school)	A short cartoon on littering cigarette butts.	30 seconds	http://www.youtube.com/watch?v=DuBcLkd91xM
Ocean Pollution			
Beach plastic	Inspiring piece by Richard and Judith Lang. They are mixed media visual artists who use beach plastic to create sculptures, installation and jewellery from things found at the beach.	9 mins	http://beachplastic.com/ http://www.plasticforever.blogspot.com.au/p/movie-one-plastic-beach.html

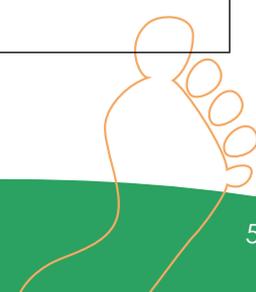




Great pacific garbage patch	A Good Morning America news snippet on the huge patch of plastic in the Atlantic Ocean.	4 ½ mins	http://www.youtube.com/watch?v=OFMW8srq0Qk
How did our lives become so plastic?	In July 2011, Tim Silverwood sailed 5000km from Hawaii to Vancouver to research and document the accumulation of plastic in the infamous North Pacific Gyre, otherwise known as the Great Pacific Garbage Patch.	17 mins	https://www.youtube.com/watch?v=td8RkPDOPuc
Journey to the Ocean via rubbish	An animation made by school student, Grace Kim, about what happens to waste when we let it escape into the environment.	5 mins	www.youtube.com/watch?v=vh6MDuxYing#t=70
Kill Plastic not Wildlife	So much plastic waste ends up in our oceans it is having a devastating effect on marine life.	6 mins	http://aries.mq.edu.au/videos/kill-plastic-not-wildlife/
Midway	Trailer for a documentary about the effect of plastic waste, especially for albatrosses, in the Midway Atoll.	4mins	http://aries.mq.edu.au/videos/midway-trailer/index.php
Plastic Oceans	A Catalyst documentary, 270 species worldwide are affected by marine debris including half of all seabird species. Perth rubbish blows offshore to other places. South Australia, which has container deposit legislation, has the least environmental impact on marine life of any of the states or territories.	12:14 mins	http://www.abc.net.au/catalyst/stories/3583576.htm
'What do you fish from the sea?' Take 3 Promotional Short 2012	In this short promotional film Take 3 paints a picture of a future where appreciating oceanic wildlife is a distant memory and instead a new generation of admirers compare plastic encounters.	2 mins	http://www.facebook.com/photo.php?v=384876644884436
Plastic			
Break the Habit	An amusing and thought-provoking view of our addiction to plastic.	3 mins	http://aries.mq.edu.au/videos/break-the-habit/



One Hundred and eight	An art installation made from plastic bags.	2 mins	https://vimeo.com/1655849
The Problem with Plastic	A thought-provoking video on the detrimental effects of plastic.		http://aries.mq.edu.au/videos/problem-with-plastic/index.php
Product Life Cycles			
From Crop to Swap	An Australian clip looking at the journey of jeans from manufacturing processes to purchasing.	3 ½ mins	http://www.youtube.com/watch?v=k4Y7EWEnaTk
Life Cycle of a Plastic Bag	Animation about plastic bags and the place they end up, including the ocean.	2mins	https://www.youtube.com/watch?v=3T-ctEae1iw
Loop scoops – Electronics	A short cartoon on electronic waste.	2.5 minutes	http://www.youtube.com/watch?v=JXjk6nYMNIA&feature=related
Loop scoops – Juice boxes	A short cartoon on recycling juice boxes.	2.5 minutes	http://www.youtube.com/watch?v=LajlBVquQo0
Story of bottled water, cosmetics, electronics, solutions and other videos	A series of cartoons on the waste cycle in bottled water, cosmetics and more.	8 mins each	http://www.storyofstuff.org/movies-all/story-of-stuff/
Story of stuff	This cartoon shows you the full cycle of products and their impacts including extraction, sale, use and disposal.	21 minutes	http://www.storyofstuff.org/movies-all/story-of-stuff/ or http://www.youtube.com/watch?v=gLBE5QAYXp8
The Secret Life of Things 'Life Pscycle-ology'	A humorous look at the life story of an unhappy mobile phone, who seeks therapy after his owner dumps him in favour of a new model. Free learning resources available at www.thesecretlifeofthings.com	6 mins	http://www.youtube.com/watch?v=OKyrB2Jn2Zs
Recycling			
Ever wondered what happens to your recycled rubbish?	Shows the sorting journey of a home recycling bin.	5 mins	www.youtube.com/watch?v=bLBtRRwRSIQ





How Plastic Bottles Are Recycled Into Polyester	A YouTube clip about converting used plastic bottles into useful polyester for the clothing industry.	5 mins	http://www.youtube.com/watch?v=zyF9Mxlctw&feature=related
Recycling Cans	An animated clip about what happens to aluminium cans.	1 min	http://www.youtube.com/watch?v=fwxzuTm103M
Recycle Right Greenfingers TV	A series of short videos about reducing waste and recycling effectively produced by the South Metropolitan Regional Council in Perth.	2-4mins	http://recycleright.net.au/recycle-right-greenfingers-tv-2014
Soft Drink Cans: The ultimate recyclable package	Video from Alcoa about the process of recycling cans.	5 mins	http://www.alcoa.com/australia/en/news/alcoa_video.asp?videoid=76

Taking Action to Reduce Waste

Bottle Bank Arcade (making recycling fun)	This video shows how people will change their recycling behaviours if it's fun.	2 mins	http://thefuntheory.com/ or http://www.youtube.com/watch?v=zSiHjMU-MUo
Change the world in 5 minutes	This class of primary school kids demonstrate over the course of a week that it only takes five minutes a day to make a positive impact— from recycling to planting fruit and veg and telling jokes.	5 minutes	http://www.youtube.com/watch?v=a1o7i3euPvA
Green events at school	A US school student, 14 year-old Tomas Lang, made his school events more sustainable by getting rid of the disposable plate and cutlery!	3 mins	http://www.karmatube.org/videos.php?id=3765
Living without plastic for a year	Channel 10 interview with a Melbourne mum who is 8 months into her plastic free journey.	3 ½ mins	http://www.youtube.com/watch?v=P41eLLA5tng
The Uniform Project (one LBD for 365 days)	A New York student wears one dress for 365 days.	3 mins	Video http://vimeo.com/11113046 Article at http://www.justmeans.com/-Uniform-Project-Social-Entrepreneur-Funds-Education-Program-by-Wearing-Same-Dress-for-365-Days-in-a-Row/17536.html
The world's deepest bin	From the Fun Theory, this video shows how people will change litter behaviour if it's fun.	2 mins	http://thefuntheory.com/ or http://www.youtube.com/watch?v=qRgWttqFKu8



Podcast links

Name	Description	Length	Link
The Good Stuff - Episode 9: Kids Who Care Challenge Crayola	If you laid all the Crayola plastic markers made each year end to end, they'd circle the earth three times – and they're not recyclable. Some California kids are campaigning to change that – and in the process, learning how to flex their citizen muscles.	12 mins	http://www.storyofstuff.org/2013/03/01/the-good-stuff-episode-9-kids-who-care-challenge-crayola/

Books

Click on the title for more information.

How to Make and Use Compost: The Ultimate Guide by Nicky Scott	Whether you live in a flat with a balcony or have a family and garden that generates large amounts of food and green waste, this book shows you how to compost everything that can be composted—at home, work, or school, and in spaces big or small.
Plastic-Free: How I Kicked the Plastic Habit and How You Can Too by Beth Terry	Like many people, Beth Terry didn't think an individual could have much impact on the environment. But while laid up after surgery, she read an article about the staggering amount of plastic polluting the oceans and decided then and there to kick her plastic habit. Now she wants to teach you how you can too. She also has a blog .
The Ethics of Waste: How we Relate to Rubbish by Gay Hawkins	Gay Hawkins explores the ethical significance of waste in everyday life from the broadest conceptions of waste and loss to how the environmental movement has affected the ways we think about garbage, the ways we deal with it, and the ways in which we view others' reactions to waste.
The Thrifty Gardener by Millie Ross	Packed with garden projects, from beehives to outdoor showers, edible cubby houses to bedspring frames for climbers, all made from repurposed materials, The Thrifty Gardener aims to make gardening accessible to everyone.
Trash to Treasure by Pam Scheunemann	With easy step-by-step instructions, this book will help kids get creative and recycle and repurpose their trash into handmade treasures.
Zero Waste Home by Bea Johnson	In Zero Waste Home, Bea Johnson shares the story of how she simplified her life by reducing her waste. She also has a blog by the same name.



USEFUL CONTACTS

Please contact the organisations below if you have ideas for working together that aren't listed. Some of the organisations that may not have worked a lot with early childhood services in the past have expressed enthusiasm to do so. If you know of an organisation not listed here, please [let us know](#) so that we can update the Kit.

Organisation	Contact Details	Services
Little Green Steps WA	www.littlegreenstepswa.org.au lgs@aacewa.org.au 9411 3314	Early Childhood Education for Sustainability. Offers professional learning, resources, support, and information.
Waste Wise Schools Program	www.wasteauthority.wa.gov.au/programs/waste-wise-schools wastewise@der.wa.gov.au 6467 5167	Resources and support for schools to plan, implement and maintain waste minimising projects such as recycling, composting and worm farming. Offers professional learning, incursions and grants for schools.
Eastern Metropolitan Regional Council	http://www.rgang.org.au bronwyn.lee@emrc.org.au 9424 2271	Waste education for people within the Town of Bassendean, City of Bayswater, City of Belmont, Shire of Kalamunda, Shire of Mundaring and the City of Swan. Offers an environmental education centre, battery recycling program, event recycling trailer and Earth Carers' courses.
Mindarie Regional Council	http://www.mrc.wa.gov.au/Education-Resources.aspx wasteed@mrc.wa.gov.au 9306 6348	Waste education for people within the councils of Cambridge, Joondalup, Perth, Stirling, Victoria Park, Vincent and Wanneroo. Offers an education centre, tours showing landfill and composting sites, incursions, waste education trailer, educational resources, Earth Carers courses and battery recycling program.
Rivers Regional Council	www.rrc.wa.gov.au 9497 5699	Provides waste education for people in the Councils of Armadale, Gosnells, Mandurah, South Perth, Murray, Serpentine-Jarrahdale and Waroona. Delivers the Waste Wise Schools Program to primary schools within these areas, supports community gardens, provides composting and worm farm displays, battery recycling and other waste reduction and recycling programs.
Southern Metropolitan Regional Council	http://www.recycleright.wa.gov.au 9256 9528 tours@smrc.com.au	Waste education for people within the City of Cockburn, Town of East Fremantle, City of Fremantle, City of Kwinana and City of Melville. Offers an education centre and tours of the Regional Resource Recovery Centre for children in Year 1 and above, or can visit your service to conduct engaging activities around the concept of recycling right.



Western Metropolitan Regional Council	http://www.earthcarers.org.au 9384 4003	Waste education for people within the Town of Claremont, Town of Cottesloe, Town of Mosman Park, Shire of Peppermint Grove and the City of Subiaco. Offers 'Reduce, reuse, recycle' school visits, support for setting up worm farms, battery recycling programs for pre-primary students and up. Earth Carers also run courses on waste in the community - perfect for teachers, educators and other staff to extend their knowledge.
Cleanaway Schools Program	http://www.transpacific.com.au/content/schools-program.aspx Perth: 9449 3333 Albany: 9841 2467	Offers incursions for school and pre-school students about the waste hierarchy and recycling in students' local area.
REmida WA	www.remidawa.com 9227 5576 info@remidawa.com	Offers art and reuse workshops for kindy and pre-primary children, professional learning for educators and membership which gives access to a range of materials (paper, textiles, wood, metals, plastic etc.) for reuse in your service.
City of Cockburn	www.cockburn.wa.gov.au/Council_Services/Environment/Sustainability 9411 3444	Offers sustainability grants to schools, organisations and small businesses in the City of Cockburn.
Australian Association for Environmental Education WA Chapter	http://www.aaeewa.org.au/wastetrailer.html info@aaeewa.org.au	Offers a waste education trailer for use within the City of Cockburn. Games, posters and other resources about waste can be downloaded from the website.
One World Centre	www.oneworldcentre.org.au 9371 9133 Library@oneworldcentre.org.au	Offers members a library of resources about global issues, which includes early childhood resources related to waste. Has an online catalogue.
South East Regional Centre for Urban Landcare	www.sercul.org.au/incursions.html 9458 5664	Offers excursions and incursions about rivers and wildlife for kindergarten, pre-primary and primary school students, some of which have links to waste.



The Worm Shed	www.wormshed.com.au kevin@wormshed.com.au 9571 8003	Sells worm farming materials as well as offering worm incursions.
Environment House	www.envirohouse.org.au https://www.facebook.com/EnviroHouseEcoShop 9271 4488	Offers compost, worm farming and kid's gardening workshops. Also sells compost and worm farming materials as well as various other products to help people live sustainably.
Keep Australia Beautiful WA	www.kabc.wa.gov.au cleanschools@kabc.wa.gov.au 6467 5123	Offers professional learning about litter for teachers in schools as well as litter teaching resources, some of which are suitable for use with young children. Also runs the Adopt-A-Spot Program where groups can remove litter from a local site and Community litter grants, which are open to applications from local governments, community groups, small to medium sized enterprises and schools.
Stephanie Alexander Kitchen Garden Foundation	www.kitchengardenfoundation.org.au/membership (03) - 8415 1993	Offers tools, resources and training for schools and early learning services to set up a successful kitchen garden.
Living Smart	http://livingsmart.org.au/ coordinator@livingsmart.org.au 9432 9877	Offers courses that equip adults to take action in their own homes to improve their quality of life and reduce their environmental impact. The courses have ten key modules: Simple Living, Water, Power, Waste, Gardening for Biodiversity, Gardening for Food Production, Transport, Healthy You, Healthy Home and Community.
Junior Landcare	www.juniorlandcare.com.au/grants-2	Offers grants for environmental projects to schools, day care centres, kindergartens and community organisations.
Healthway	www.healthway.wa.gov.au/application-forms/health-promotion-project-grants	Offers grants to schools for activities that promote the priority health areas of mental health, nutrition and/or physical activity.
SGIO Community Grants - Environment	www.communitygrantsprogram.com.au/wa/category/environment	Offers grants for environmental activities to schools, not-for-profit organisations and community groups.



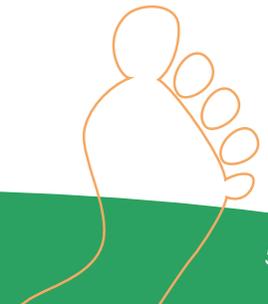
Early Years in Education Society	http://eyes.org.au/grants/	Offers grants for member early childhood teachers to undertake a special project.
Myer Foundation	http://myerfoundation.org.au/grants/education/small-grants	Offers grants to government schools and community organisations to improve educational outcomes of 0-25 year olds in the priority areas of disadvantaged young people, culturally and linguistically diverse young people and young people in rural and regional communities.
Community Enterprise foundations	https://applications.communityenterprisefoundation.com.au/Find_Funding_Here/index.aspx	Offers some grants for projects that make a positive contribution to specific local communities.
Bunnings	www.bunnings.com.au/about-us/in-the-community/local-community-support	Offers hands on help and contributions to schools, kindergartens and community group projects.
IGA Stores	www.iga.com.au/community-chest	Offers grants to individuals and organisations in the local community of each store.



Activity idea: Reusing old textiles

One way to reuse fabrics, wool, strings and other materials is to create collages. Illustrations in books such as *Belonging* by Jeannie Baker can give plenty of inspiration.

Image credit: Canan Zembil, Creative Commons License CC BY 2.0



YOUNG CHILDREN'S BOOKS ABOUT WASTE

Click on the title to find out more about each book.

Belonging by Jeannie Baker	An alienating city street gradually becomes a place to call home. Little by little, baby Tracy grows. She and her neighbours begin to rescue their street.
Compost Stew by Mary McKenna Siddals	A recipe in rhyme for making dark, crumbly, rich, earth-friendly compost.
Dinosaurs and All that Rubbish by Michael Foreman	Dinosaurs have taken over the Earth. They're stomping and stamping all over the place. Young readers will love finding out why in this classic environmental tale.
Dinosaurs to the rescue by Laurie Krasny Brown and Marc Brown	Text and illustrations of dinosaur characters introduce the earth's major environmental problems and suggest ways children can help.
I Can Save the Earth!: One Little Monster Learns to Reduce, Reuse, and Recycle by Alison Inches	Kids can follow Max the Little Green Monster's journey to environmental awareness and learn tips on how they can become little green monsters themselves. A kid-friendly glossary of terms is included in the back of the book.
In the Bin by Kellie Bollard	An informative rhyming story about bins, recycling, worms, compost and all things rubbish.
Lester and Clyde by James Reece	Two fat green frogs live together in a pond. One day when old Clyde was asleep in the sun, young Lester decided to have some fun. The story deals with human's pollution.
Let's Reuse by Sara E. Nelson	Text and photographs describe easy ways to reuse items and why it is important to do so.
Michael Recycle by Ellie Bethel	Michael Recycle tells the adventures of a young superhero whose power allows him to teach people about recycling.
Peppa Pig – Recycling Fun!	Peppa Pig and her family are having fun sorting and recycling their rubbish. Miss Rabbit is having fun recycling, too, until she tries to recycle something she shouldn't!
Reduce, Reuse, Recycle series by Alexandra Fix	Introduces children to how they can help the environment by reducing waste. Explores the harmful effects of waste and ways children can reuse and recycle materials. Titles in the series are: Food, Glass, Metal, Paper, Plastic, Water and Energy.
Rubbish and Recycling by Stephanie Turnball	A colourful informative book for children beginning to read on their own.
The Adventures of a Plastic Bottle: A Story About Recycling by Alison Inches	Peek into this diary of a plastic bottle as it goes on a journey from the refinery plant, to the manufacturing line, to the store shelf, to a garbage can, and finally to a recycling plant where it emerges into its new life...as a fleece jacket!
The Day the Trash Came Out to Play by David M Beadle	Robin's careless disposal of a candy wrapper creates a litter problem that teaches him about taking care of his neighbourhood.
Uno's Garden by Graeme Base	Uno loves the forest so much, he decides to live there. But, in time, a little village grows up around his house. Then a town, then a city. . . and soon Uno realises that the animals and plants have begun to disappear. . .
Why Should I Recycle? by Jen Green	Mr Jones is a teacher who sets a good example for kids by separating his trash for recycling. When he takes them on a class trip to a recycling plant they learn the value of recycling.

WASTE DATES TO CELEBRATE

Click on the event title to go to the event website.

Date	Event
Early March	<u>Clean Up Australia Day</u> Clean up a place near you.
March	<u>Less is More Festival</u> The Less is More Festival is a free family-friendly festival, held in Peppermint Grove, that brings members of the Perth community together for a day of skill-sharing workshops, presentations and discussions about: <ul style="list-style-type: none"> • Less waste, less impact on the environment and less spending • Better health, new skills and knowledge and more fun.
June 5th	<u>World Environment Day</u> United Nations Day to encourage worldwide awareness and action for the environment. Plan an event.
June 8th	<u>World Oceans Day</u> A day to celebrate and honour the ocean. Plan an event or use some of the educational resources (including some Octonauts themed resources).
July	<u>Plastic Free July</u> Aims to raise awareness of the amount of single-use disposable plastic in our lives and challenges people to do something about it. Pledge to avoid single-use plastic in July.
October 16th	<u>World Food Day</u> Aims to raise awareness of hunger and poverty. A good day to think about food waste.
Late October	<u>Garage Sale Trail</u> Encourage reuse and make some money by holding a garage sale.
October	<u>Buy Nothing New Month</u> A one month challenge to buy nothing new (with the exception of essentials like food, hygiene and medicines). It's about taking one month off to really think, "Do I really need it?" If I do, "can I get it second-hand, borrow it or rent it? What are my alternatives? Can I borrow from a friend? Can I swap with my neighbour?"
November	<u>National Recycling Week</u> Planet Ark week to promote recycling and give people the tools to minimise waste. Hold an event or find information about recyclable items such as cartridges and mobile phones.
December 26th	<u>National Leftovers Day</u> A day to focus on and reduce food waste. Promote in your service's newsletter or talk with children about reducing food waste at an earlier date.



Planning Idea: What would you do with it? Wednesday

Each week pick an item that you have a lot of at your service and would like to reuse, such as textas that no longer work. Display it with a sign and space for staff and families to add their suggestions about how it could be reused. Ask children for their suggestions too and then incorporate into upcoming activities. [Here's some ideas to get you started.](#)



LOCAL COUNCIL RECYCLING INFORMATION

What can be recycled in my area?

In order to best manage the waste produced at your service it's important to know where your recycling goes and what items can be recycled in your area.

Local Councils

On the following page is a list of links to information about recycling and waste on all Western Australian local council websites, (correct at the time of publication.) Also included is the council phone number for more information. These will be useful for **family day care and in home care services**, where waste will normally be collected through council services. **Out of school care services, day care centres, non-government kindergartens and pre-primaries and non-metropolitan government kindergartens and pre-primaries** may also find this useful as some councils will collect waste from businesses as well as homes, charging a commercial rate for the services.

In some non-metropolitan areas there is no information on council websites about recycling or there is no recycling service available. Please contact the council for more information. It may also be worth investigating any other local organisations that may collect recycling, such as Lions Clubs or local environmental or land care organisations or considering whether your service can be part of setting up collection of particular recyclable items.

Common use arrangements

WA government schools in the metropolitan area purchase waste and recycling services through the Common Use Arrangement (CUA 36309) for General Waste Disposal and Recycling. There are three suppliers on the CUA who pick up both recycling and general waste: Perthwaste, Suez Environment (previously known as SITA) and Veolia. For more information see the [Waste Wise Schools fact sheet](#) which is also included on this USB drive.

Early childhood services that are part of non-metropolitan government schools or non-government schools may also use the CUA information as a guide and can consider other private contractors (as part of whole-school waste arrangements).

Private Contractors

Out of school care services, day care centres, non-government kindergartens and pre-primaries and non-metropolitan government kindergartens and pre-primaries may also consider private contractors. To choose which contractor is best for your service, consider what items can be collected for recycling and what type of recycling materials your service creates. (Kindergartens and pre-primaries will most likely work within whole-school waste arrangements.)



LOCAL COUNCIL RECYCLING INFORMATION – METROPOLITAN

Armadale

http://www.armadale.wa.gov.au/Home/Services_and_Facilities/Waste_and_Recycling

(Downloadable PDF)

For more information contact the City on 9399 0111

Bassendean

http://www.bassendean.wa.gov.au/7_info_feedback/info_sheet_pages/Rubbish-Recycling-Collection-HE-180507.html

For more information contact the Town on 93778000 or the Recycling hotline: 1800 855 955

Bayswater

<http://www.rgang.org.au/city-of-bayswater.html>

(A-Z of waste especially useful, includes forms to begin a commercial waste service)

For more information contact the waste management customer service team on 9272 0605.

Belmont

<http://www.rgang.org.au/city-of-belmont.html>

For more information contact the City on 9477 7222.

Cambridge

http://www.cambridge.wa.gov.au/files/7769dc79-66a2-4738-b98d-a2300104c45f/Waste_and_Recycling_Guide_2013-14.pdf?streamFile=true

(Will even give a bigger recycling bin if required.)

http://www.cambridge.wa.gov.au/Services/Waste_Collection/Waste_Disposal_Locations

For more information contact Waste and Recycling on 1300 761 908.

Canning

http://www.canning.wa.gov.au/images/stories/pdfs/services/Recycling_in_Canning_-_2012.pdf

For enquiries about waste and recycling collection contact 9231 0716.

Claremont

<http://www.claremont.wa.gov.au/Residents/HealthandWaste/Recycling.aspx>

<http://www.perthwaste.com.au/images/stories/pdf/ClaremontWhathappenstomyRecycling.pdf>

For further information, contact the Environmental health team on 9285 4300.

Cockburn

http://www.cockburn.wa.gov.au/Council_Services/Waste/

For more information contact the City on 9411 3444.

Cottesloe

<http://www.cottesloe.wa.gov.au/Services-Waste.htm>

For more information contact the Health and Building Administration Officer on 9285 5000.

East Fremantle

<http://www.eastfremantle.wa.gov.au/uploaded/pdf/waste-cal-2013-east-freo.pdf>

For more information contact the council on 9339 9339

Fremantle

http://www.fremantle.wa.gov.au/cityservices/Household_waste_and_recycling/Recycling_service_for_domestic_properties

http://www.fremantle.wa.gov.au/cityservices/Household_waste_and_recycling/Waste_and_recycling_frequently_asked_questions (Includes contact details for commercial & school recycling)

For more information contact the Waste Management team on 9432 9999.

Gosnells

http://www.gosnells.wa.gov.au/Your_property/Rubbish_and_recycling/Recycling_and_you

For more information contact the City on 9397 3000.



Joondalup

<http://www.joondalup.wa.gov.au/Live/WasteManagement/YellowLidBin.aspx>
http://www.joondalup.wa.gov.au/Libraries/Documents/Waste_Guide_2014.pdf

For more information contact the City on 9449 3363.

Kalamunda

<http://www.kalamunda.wa.gov.au/Waste-Environment/Waste-Services>
<http://www.kalamunda.wa.gov.au/Waste-Environment/Waste-Services/A-Z-Waste-Disposal-Guide>

For more information contact the Shire on 9257 9999.

Kwinana

<http://www.kwinana.wa.gov.au/about-kwinana/waste--recycling>
<http://www.kwinana.wa.gov.au/Documents/Resource-Recovery-Calendar-2014-2015>

For more information contact Perthwaste on 1300 293 955.

Mandurah

<http://www.mandurah.wa.gov.au/YellowBin.htm>
<http://www.mandurah.wa.gov.au/WasteEducation.htm>

For more information contact the Waste Alliance Service Centre on 9550 4700.

Melville

<http://www.melvillecity.com.au//index.php/component/alfrescocontent/?nodeid=f8d8a7f0-552b-44dd-9f94-8bee050ab2b5>
<http://recycleright.net.au/>

For more information contact the City on 1300-635-845, 1300-MELVILLE or 9364 0666.

Mosman Park

<http://www.mosmanpark.wa.gov.au/services/waste-and-recycling>

For more information contact the Town on 9384 1633.

Mundaring

<http://www.mundaring.wa.gov.au/ResidentServices/Waste/Pages/CollectionFacilities.aspx>
http://www.mundaring.wa.gov.au/ResidentServices/InfrastructureWorks/Documents/EMRC_Mundaring_14-15_4.pdf

For more information contact Infrastructure Services on 9290 6666.

Nedlands

<http://www.nedlands.wa.gov.au/bins>

For more information contact the Shire on 9273 3500.

Peppermint Grove

<http://www.peppermintgrove.wa.gov.au/services-facilities/waste-management/recycling/>
<http://www.earthcarers.org.au/publications/fact-sheets/>

For more information contact the Shire on 9286 8600.

Perth

<http://www.perth.wa.gov.au/living-community/waste-and-recycling-services/domestic-recycling-collection>
<http://www.perth.wa.gov.au/living-community/waste-and-recycling-services/commercial-recycling-collection>
<http://www.perth.wa.gov.au/living-community/waste-and-recycling-services/drop-it-service>

For more information contact Waste Management on 9461 3421.

Rockingham

<http://www.rockingham.wa.gov.au/Services/Rubbish-and-recycling-services/Rubbish-and-recycling-collection>

(No list of what can be recycled)

For more information contact the City on 9528 0333.

Serpentine Jarrahdale

<http://www.sjshire.wa.gov.au/recycling/>
<http://www.sjshire.wa.gov.au/cfl-and-battery-recycling/>

For more information contact the Shire on 9526 1111.



**South Perth**

<http://www.southperth.wa.gov.au/Services/Rubbish-and-Recycling>

<http://www.southperth.wa.gov.au/Services/Battery-Recycling>

<http://www.southperth.wa.gov.au/Services/Collier-Park-Waste-Transfer-Station>

For more information contact the City on 9474 0777.

Stirling

<http://www.stirling.wa.gov.au/recycling>

(Kerbside recycling will commence in July 2015)

For more information contact the City on 9205 8555.

Subiaco

<http://www.subiaco.wa.gov.au/Your-home/Recycling-and-rubbish-services-for-residents>

<http://www.subiaco.wa.gov.au/Your-business/Recycling-and-rubbish-services-for-businesses/Business-recycling-and-rubbish>

For more information contact the City on 9237 9222.

Swan

http://www.swan.wa.gov.au/Business/Business-support/Our_services/Bin_services

(See downloadable Waste and Recycling Guide.)

http://www.swan.wa.gov.au/Residents/Waste_and_Recycling_Services/E-waste_and_hazardous_material

For more information contact Waste Services on 9267 9267.

Victoria Park

<http://www.victoriapark.wa.gov.au/residents/waste-management/yellow-lid-bin-collection>

http://www.victoriapark.wa.gov.au/sites/default/files/Waste%20&%20Recycling%20Guide%202015_WEB_3.pdf

For more information contact the City on 9311 8111.

Vincent

http://www.vincent.wa.gov.au/Services/Waste_Recycling/Yellow_Lid_Mobile_Recycle_Bins_Collections

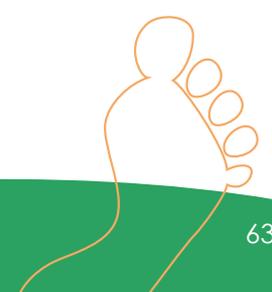
http://www.vincent.wa.gov.au/Services/Waste_Recycling/Household_Hazardous_Waste

For more information contact the City on 9273 6000.

Wanneroo

http://www.wanneroo.wa.gov.au/info/20008/waste_and_recycling/32/recycling_collection

For more information contact the City on 9405 5000.





LOCAL COUNCIL RECYCLING INFORMATION – NON-METROPOLITAN

Albany

<http://www.albany.wa.gov.au/your-property/waste-management/>

For more information contact the City on 9841 9333

Ashburton

<http://www.ashburton.wa.gov.au/services/waste-management>

(No information about recycling on website)
For more information contact the Waste Coordinator on 9188 5505 or soa@ashburton.wa.gov.au

Augusta Margaret River

<http://www.amrshire.wa.gov.au/services/household-waste-disposal-and-recycling#recycling>

For more information contact the Shire - Augusta: 9780 5663, Margaret River: 9780 5255.

Beverley

http://www.beverley.wa.gov.au/Assets/Documents/content/services/domestic_rubbish_removal.pdf

For more information contact the Shire on 9646 1200.

Boddington

<http://www.boddington.wa.gov.au/refuse-site-waste-management.aspx>

(Has a drop off recycling centre but no home collection)

For more information contact the Shire on 9883 4999.

Boyup Brook

<http://www.boyupbrook.wa.gov.au/waste-management.aspx>

(Once a month collection and a drop off centre that's open 24 hours. Says some plastics are accepted but not which ones)

For more information contact the Shire on 9765 1200.

Bridgetown

<http://www.bridgetown.wa.gov.au/your-shire/services/waste-management>

(Has a recycling pick up and a drop off station but no information about what is actually recyclable)

For more information contact the Shire on 9761 1555.

Brookton

<http://www.brookton.wa.gov.au/waste-recycling.aspx>

For more information contact the Shire on 9642 1106.

Broome

<http://www.broome.wa.gov.au/comm/recycle.htm>

For more information contact the Health Department on 9191 3456.

Broomehill/Tambellup

<http://www.shirebt.wa.gov.au/services/waste.php>

For more information contact the Shire on 9825 3555.

Bruce Rock

<http://www.brucerock.wa.gov.au/waste-management-services.aspx>

(Has somewhere you can drop recycling off but not a lot of detail about what can be recycled)

For more information about what can be recycled contact Bruce Rock Landcare on 9061 1677 or Avon Waste on 9641 1318.

Bunbury

<http://www.bunbury.wa.gov.au/Pages/Commercial-Waste-and-Recycling.aspx>

(Includes commercial options for kerbside pickup)

http://www.bunbury.wa.gov.au/pdf/environment/3Bin_Booklet.pdf

For more information contact Waste Operations on 9792 7333.



Busselton

<http://www.busselton.wa.gov.au/sites/busselton.wa.gov.au/files/Recycling%20Collection%20Calendar%202014-15.pdf>

For further information contact the City on 9781 0444.

Capel

<http://www.capel.wa.gov.au/live/waste-management/household-rubbish-recycling-organics-collection.aspx>
<http://www.capel.wa.gov.au/live/waste-management/eco-waste-management.aspx>

For more information contact the Shire on 9727 0222.

Carnamah

<http://www.carnamah.wa.gov.au/services/waste-management>

For more information contact the Shire on 9951 7000.

Carnarvon

<http://www.carnarvon.wa.gov.au/services/waste-management/>

(No recycling apparent)

For more information contact the Shire on 9941 0000.

Chapman Valley

http://www.chapmanvalley.wa.gov.au/sites/default/files/Refuse%20Site%20Brochure_2.pdf

(Some items need to be separated at the tip but it's unclear if they're recycled)

For more information contact the Shire on 99205011.

Chittering

<http://www.chittering.wa.gov.au/technical-services/waste-collection/default.aspx>

(Just began a recycling collection service but no details on website yet about what can be recycled)

For more information contact the Shire on 9576 4600.

Christmas Island

http://www.shire.gov.cx/Environmental_Services/wastemin.html

(No waste reduction strategies at the moment)

For more information contact the Building and Health Officer on t(08) 9164 8300 ext. 240 or email: ron@shire.gov.cx.

Cocos Islands

No information on website.

For more information contact the Shire on Home Island on (618) 9162 6649 or West Island (618) 9162 6740.

Collie

<http://collie.wa.gov.au/services/technical-services/recycling-waste/>
<http://collie.wa.gov.au/wp-content/uploads/2011/09/what%20happens%20to%20out%20waste.pdf>

For more information about recycling contact Perth Waste on 9726 0022.

Coolgardie

<http://www.coolgardie.wa.gov.au/Waste-Management.aspx>

(Seems like there is some minimal recycling at the transfer station but no collection.)

For more information contact the Shire on 9080 2111.

Coorow

<http://www.coorow.wa.gov.au/Services-Facilities-Refuse-Services.aspx>

(Seems like there has been a trial of a recycling depot at the Leeman tip)

For more information contact the Shire in Coorow on 9952 0100 or in Leeman on 9953 1388.

Corrigin

<http://www.corrigin.wa.gov.au/waste-management.aspx>

(Has recycling pickup but no listing of what goes in recycling bin)

For more information contact the Shire on 9063 2203.



Cranbrook

<http://www.cranbrook.wa.gov.au/services/waste>
(Has a tip which takes recyclables, but types or recycling not listed)
For more information contact the Shire on 9826 1008.

Cuballing

Contact the Shire to enquire about waste management 9883 6031.

Cue

Contact the Shire to enquire about waste management 9963 8600.

Cunderdin

<http://www.cunderdin.wa.gov.au/waste-services.aspx>
For more information contact the Shire on 9635 1005.

Dalwallinu

<http://www.dalwallinu.wa.gov.au/rubbish-and-recycling.aspx>
For more information contact the Shire on 9661 0500.

Dandaragan

<http://www.dandaragan.wa.gov.au/waste-management.aspx>
(Has recycling collection and drop off but no information about what can be recycled)
For more information contact the Shire on 9652 0800.

Dardanup

<http://www.dardanup.wa.gov.au/environment/waste-recycling/waste-transfer-station/>
http://www.dardanup.wa.gov.au/files/2014/07/2binca_dardanup2014.pdf
For more information contact the Shire on 9724 0000.

Denmark

<http://www.denmark.wa.gov.au/waste-services>
http://www.denmark.wa.gov.au/media/uploads/files/Recycling_Information.pdf
For more information contact the Shire on 9848 0300.

South Derby/ West Kimberley

<http://www.sdwk.wa.gov.au/services/wasteandrecycling/Recycling.html>
<http://www.sdwk.wa.gov.au/services/wasteandrecycling/wastemanagementfacilities.html>

For more information call the Shire's Environmental Health Department on 9191 0999.

Donnybrook-Balingup

<http://donnybrook-balingup.wa.gov.au/our-services/waste-management/>
<http://donnybrook-balingup.wa.gov.au/files/2014/09/Waste-Flyer-1415.pdf>

For Waste Management enquiries, contact the Shire's Health Services on 9780 4205.

Dowerin

<http://www.dowerin.wa.gov.au/services/waste-management/>

(Have a yellow bin collection and also a recycling shed in town but no information about what can be recycled)

For more information contact the Shire on 9631 1202.

Dumbleyung

Contact the Shire to enquire about waste management on 9863 4012.

Dundas (Norseman)

<http://www.dundas.wa.gov.au/rubbish-services.aspx>

(No information about recycling)

For more information contact the Shire on 9039 1205.

East Pilbara

<http://www.eastpilbara.wa.gov.au/Technical%20Services%20-%20Waste%20Management.aspx>

(Has recycling collection but no information about what can be recycled)

For more information contact the Shire on 9175 8000.



Esperance

<http://www.esperance.wa.gov.au/cp-root/2125/3/2014%20Recycling%20Calendar.pdf>
http://www.esperance.wa.gov.au/3/85/1/recycling_services_residential_and_commercial.pm
http://www.esperance.wa.gov.au/3/92/1/mobile_and_drum_muster.pm

For more information contact the Shire on 9071 0666.

Exmouth

<http://www.exmouth.wa.gov.au/Recycling.aspx>
(Batteries, cans etc. collected at drop off points
For more information contact the Shire on 9949 3000.

Gingin

<http://www.gingin.wa.gov.au/index.php/residents/community-services/rubbish-collection>
<http://www.gingin.wa.gov.au/index.php/the-council-and-policies/environmental-health/waste-disposal>

(Only seems to have e-waste drop-off)
For more information contact the Shire on 9575 2211.

Gnowangerup

For information about waste management contact the Shire on 9827 1007

Goomalling

<http://www.goomalling.wa.gov.au/reduce-reuse-and-recycle-in-goomalling.aspx>
(No collection service but information about where recyclables can be dropped off around town)
For more information contact the Shire on 9629 1101.

Geraldton

<http://www.cgg.wa.gov.au/services/waste/recycling>
(No kerbside collection but information about where recyclables can be dropped off around town)
For more information contact the Shire on 9956 6600.

Halls Creek

No recycling mentioned on website.
For information about waste management contact the Shire on 9168 6007.

Harvey

<http://203.170.86.41/~harveywa/index.php?&pageid=140>
For more information contact the Shire on 9729 0300.

Irwin

<http://www.irwin.wa.gov.au/Waste-Management.aspx>
(Recycling available at transfer station)
For more information contact the Shire on 9927 0000.

Jerramungup

<http://www.jerramungup.wa.gov.au/services/refuse-facilities/>
(Recycling of some items available at refuse sites)
For more information contact the Shire on 9835 1022.

Kalgoorlie-Boulder

<http://www.ckb.wa.gov.au/Your-Council,-Your-City/Residents/Waste-management/Recycling.aspx>
<http://www.ckb.wa.gov.au/Your-Council,-Your-City/Residents/Waste-management/Waste-collection/Bin-collection.aspx>
For more information contact the City on 9021 9600.

Karratha

<http://www.karratha.wa.gov.au/waste-services-facilities>
(Recycling available at waste service facilities)
<http://www.karratha.wa.gov.au/business-waste-services-facilities>
For more information contact the City on 9186 8555.

Katanning

<http://www.katanning.wa.gov.au/index.php/your-shire/services/planning-and-development-services/waste-management>
For more information contact the Shire on 9821 9999



Kellerberrin

<http://www.kellerberin.wa.gov.au/default.aspx?WebPageID=107>

(Some items able to be recycled at transfer station as well as drop off points in town)
For more information contact the Shire on 9045 4006.

Kent

<http://www.kent.wa.gov.au/index.php/council-services/waste-collection>

For more information contact the Shire on 9829 1051.

Kojonup

<http://www.kojonup.wa.gov.au/doing-business/rubbish-recycling-services/>

http://www.kojonup.wa.gov.au/wp-content/uploads/d6484KOJHS_KJ.pdf

For more information contact the Shire on 9831 2400.

Kondinin

<http://www.kondinin.wa.gov.au/top/council/waste-management/>

<http://www.avonwaste.com.au/files/Datasheet-recycle.pdf>

For more information contact Avon Waste on 9641 1318.

Koorda

No information about recycling on website.
For information about waste management contact the Shire on 9864 1219.

Kulin

<http://kulin.wa.gov.au/main/council/waste-services/>

For more information contact the Shire on 9880 1204.

Lake Grace

<http://www.lakegrace.wa.gov.au/index.php/our-services/works-and-infrastructure/waste-management/>

(Recycling service available but no information about what can be recycled)

For more information contact the Shire on 9890 2500.

Laverton

No information about recycling.
For more information about waste management contact the Shire on 9031 1202.

Leonora

No information about waste on website.
For information about waste management contact the Shire on 9037 6044.

Manjimup

<http://www.manjimup.wa.gov.au/your-shire/services/waste-management-recycling/kerbside-recycling>

For more information contact the Waste Management Officer on 9771 7743 or klaus.mueller@manjimup.wa.gov.au

Meekatharra

No info about recycling on website.
For information about waste management contact the Shire on 9980 0600.
Also, see <https://www.facebook.com/MeekaGoesGreen>

Menzies

No info about recycling on website.
For information about waste management contact the Shire on 9024 2041.

Merredin

<http://www.merredin.wa.gov.au/waste-management.aspx>

For more information contact the Shire on 9041 1611.

Mingenew

No information about recycling on website.
For information about waste management contact the Shire on 9928 1102.

Moora

<http://www.moora.wa.gov.au/Waste-Management.aspx>

(Has recycling at the tip but no kerbside pickup)
For more information contact the Shire on 9651 0000.



Morowa

Currently no recycling but plans for resource recovery centre (which includes recycling) to be built with Perenjori.

For more information contact the Shire on 9971 1204.

Mt Magnet

<http://www.mtmagnet.wa.gov.au/pages/51-waste-management>

(Some waste collected for reuse or recycling at the tip)

For more information contact the Shire on 9963 3000.

Mt Marshall

No information about waste on the website.

For information about waste management contact the Shire on 9685 1202.

Mukinbudin

<http://www.mukinbudin.wa.gov.au/your-shire/services/waste-collection>

<http://avonwaste.com.au/files/Datasheet-recycle.pdf>

For more information contact the Shire on 9047 1102.

Murray

<http://www.murray.wa.gov.au/residents/recycling-and-waste>

<http://www.murray.wa.gov.au/sites/default/files/information/Waste%20and%20Recycling%20Guide%202014-15.pdf>

For more information contact the Shire on 9531 7777.

Nannup

<http://www.nannup.wa.gov.au/Assets/Documents/Recycling-Documents.pdf>

For more information contact the Waste Management Officer on 9771 7743 or klaus.mueller@manjimup.wa.gov.au

Narembeen

<http://www.narembeen.wa.gov.au/wp-content/uploads/2013/10/Waste-Transfer-Collection-Calendar-2014.pdf>

(There is a collection service but no information about what can be recycled)

For more information contact the Shire on 9064 7308.

Narrogin Shire

http://www.narroginshire.wa.gov.au/Assets/Documents/Document-Centre/RECYCLE_COLLECTION_DATES_2014-2015.pdf

(No information about what can be recycled)

For more information contact the Shire on 9881 1866.

Narrogin Town

<http://www.narrogin.wa.gov.au/rubbish-tip.aspx>

For more information contact the Town on 9881 1944.

Ngaanyatjarraku

<http://www.ngaanyatjarraku.wa.gov.au/index.php/shire-services>

(Waste services provided for Warburton, Warakurna and Jameson but no information about recycling)

For more information contact the Shire on 8956 7966.

Northam

<http://www.northam.wa.gov.au/Assets/Documents/Content/waste-management/39780-Shire-of-Northam-Kerbside-Recycling-Information-Guide-A4.pdf>

<http://www.northam.wa.gov.au/waste-management-facilities.aspx>

For more information contact the Shire on 9622 6100.

Northampton

<http://www.northampton.wa.gov.au/Environmental-Health.aspx>

For information about waste management contact the Shire on 9334 1202.

Perenjori

<http://www.perenjori.wa.gov.au/services/waste-management>

(No kerbside recycling, possibly some at the tip where you leave things in different signed areas)

For information about waste management contact the Shire on 9973 0112.

Pingelly

<http://www.pingelly.wa.gov.au/Waste-Management.aspx>

For more information contact the Works Supervisor on 9887 1066 or

ws@pingelly.wa.gov.au



Plantagenet

<http://www.plantagenet.wa.gov.au/ShireServices/wastemgt.aspx>
http://www.plantagenet.wa.gov.au/pdf/What_should_you_recycle.pdf

For more information contact the Shire on 9892 1111.

Port Headland

<http://www.porthedland.wa.gov.au/south-hedland-landfill.aspx>

(Some recycling at landfill but no details.)
For more information contact the Town on 9158 9300.

Quairading

<http://www.quairading.wa.gov.au/waste-management-services.aspx>

(Recycling available at the Waste and Recycling centr.)

For more information contact the Shire on 9645 1001.

Ravensthorpe

No information about recycling on website but it appears that some items can be collected at waste transfer station for recycling.

For information about waste management contact the Shire on 9839 0000.

Sandstone

No information about recycling on website.
For information about waste management contact the Shire on 9963 5852

Shark Bay

<http://www.sharkbay.wa.gov.au/your-services/health/waste-collection-and-disposal.htm>

(Doesn't appear to be any recycling service)

For more information contact the Shire on 9948 1218.

Tammin

<http://www.tammin.wa.gov.au/waste.aspx>

(Currently no recycling service)

For information about waste management contact the Shire on 9637 0300.

Three Springs

<http://www.threesprings.wa.gov.au/index.php/our-services/waste-management>

(Some items can be given to the Lions Club for recycling)

For more information contact the Shire on 9954 1001.

Toodyay

<http://www.toodyay.wa.gov.au/environmental.aspx>

<http://www.recycleright.net.au/> (for recycling only)

For more information contact the Shire on 9574 2258.

Trayning

<http://www.trayning.wa.gov.au/index.php/concil-services/waste-collection>

For more information contact the Shire on 9683 1001.

Upper Gascoyne

No information on website.

For information about waste management contact the Shire on 9943 0988.

Victoria Plains

Has been a trial of kerbside recycling collection. Likely to continue but no information on website about what can be recycled.

For more information contact the Shire on 9628 7004.

Wagin

<http://www.wagin.wa.gov.au/rubbish-collection-recycling.aspx>

For more information contact the Shire on 9861 1177.

Wandering

<http://www.wandering.wa.gov.au/services-to-the-community.aspx>

(Has recycling pickup but no details about what can be recycled)

For more information contact the Shire on 9884 1056.



Waroona

<http://www.waroona.wa.gov.au/waste.aspx>

For more information contact the Shire on 9733 7800.

West Arthur

http://www.westarthur.wa.gov.au/council_services_and_facilities/rubbish_collection.html

For more information contact the Shire on 97362222.

Westonia

<http://www.westonia.wa.gov.au/waste-management.aspx>

For more information contact the Shire on 9046 7063.

Wickepin

<http://www.wickepin.wa.gov.au/waste-management.aspx>

(Has a recycling service but no details about what can be recycled)

For more information contact the Shire on 9888 1005

Williams

<http://www.williams.wa.gov.au/waste-management.aspx>

http://www.williams.wa.gov.au/Assets/2014_Williams_Recycling_Calendar.pdf

For more information contact the Shire on 9885 1005

Wiluna

Appears not to have any recycling services.

For information about waste management contact the Shire on 9981 8000.

Wongan- Ballidu

<http://www.wongan.wa.gov.au/services-detail.asp?iCategoryID=11>

(Has a recycling service but no details about what can be recycled)

For more information contact the Shire on 9671 1011.

Woodanilling

<http://www.woodanilling.wa.gov.au/waste-management.aspx>

http://www.woodanilling.wa.gov.au/Assets/Documents/public-notices/Recycling_FLYER_2014.pdf

For more information contact the Shire on 9823 1506.

Wyalkatchem

No information about recycling on website.

For information about waste management contact the Shire on 9681 1166.