



## Waste Education Resource Index

The Waste Education Resource Index is divided into four sections:

- [Teacher curriculum resources](#), including references to appropriate AusVELS domains and year levels
- [Interactive websites](#) to use with students (games, videos, quizzes, etc.)
- [Information resources](#) (background for teachers and/or research materials for students)
- [YouTube videos](#) we have provided a brief list of quality resources; there are many more out there

Resources have several focuses, including:

- Waste (rubbish; reduce, reuse, recycle; consumption)
- Litter (including some specific types of litter such as chewing gum and plastic)
- Marine debris (MD)
- Life Cycle Analysis (LCA)

Resources are listed alphabetically.

If you have a great resource to add to this directory, please let us know by emailing [educationandevents@vae.vic.edu.au](mailto:educationandevents@vae.vic.edu.au).

Please also let us know if any of the links no longer work.

## Teacher Curriculum Resources

Resource	Source	Focus	Description	AusVELS level(s)	AusVELS Domains
Brimbank Schools Sustainability Resources	Brimbank City Council <a href="http://www.brimbank.vic.gov.au/SERVICES/Sustainability_and_Environment/Education">http://www.brimbank.vic.gov.au/SERVICES/Sustainability_and_Environment/Education</a>	Waste, Litter & LCA	Resources developed by the Environmental Education Officers at Brimbank Council to support teachers around the topic of waste and recycling. Activity ideas and accompanying PowerPoint.	F – 6	English, Civics & Citizenship
Consuming Planet Earth	Consumer Affairs Victoria <a href="http://www.consumer.vic.gov.au/library/publications/resources-and-education/teacher-resources/a-resource-for-teaching-and-learning-about-consuming-planet-earth.pdf">http://www.consumer.vic.gov.au/library/publications/resources-and-education/teacher-resources/a-resource-for-teaching-and-learning-about-consuming-planet-earth.pdf</a>	Waste	This resource book was developed to encourage young consumers to develop the knowledge, skills and behaviours to make informed decisions based on understanding the need for more sustainable consumption.	7 – 10, VCE/VCAL/VET	Geography, Science, Maths, Economics, English
Cool Australia: Waste	Cool Australia <a href="http://coolaustralia.org/curriculum-materials/#body-wrapper">http://coolaustralia.org/curriculum-materials/#body-wrapper</a> and select “Waste” in the Topic drop-down box	Waste & Litter	Module outlines and downloadable, curriculum-linked activities. For younger students the topic is explored through literacy, numeracy, social awareness, creativity and imagination. For older students there are inquiry-based learning activities that seek to broaden and deepen their understanding of the topic.	1 – 10	Science, ICT, English, Civics & Citizenship, Geography
EnviroMentors	Keep Australia Beautiful NSW <a href="http://kabnsw.org.au/our-programs/enviromentors/program-material/">http://kabnsw.org.au/our-programs/enviromentors/program-material/</a>	Waste & Litter	These resources are based around modules offered to schools through KBA’s incursions program, but the online teacher resources include classroom activities and links to interactive games, videos and how-to fact sheets.	F – 6	English, Maths, Science, Civics & Citizenship
Learning About Litter	Keep Australia Beautiful, WA <a href="http://www.kabc.wa.gov.au/schools/192-school-downloads.html">http://www.kabc.wa.gov.au/schools/192-school-downloads.html</a>	Litter	Teacher's guide containing a series of interactive lessons. Students learn about the effects of litter and its impact on the environment, then take on the challenge to make their school litter-free.	F – 6	Science, Civics & Citizenship, The Humanities

Life Cycle Analysis of Paper and Plastic Bags	Michigan Dept. of Environmental Quality, US <a href="http://techalive.mtu.edu/meec/module14/title.htm">http://techalive.mtu.edu/meec/module14/title.htm</a>	LCA	Which are better, paper bags or plastic bags? Online module leads students through activities comparing the life cycle analysis of paper and plastic bags.	5 – 8	Science, Maths
Marine Debris Information Kit	Tangaroa Blue, Qld <a href="http://www.tangaroablue.org/">http://www.tangaroablue.org/</a>	MD	The three lessons in the kit are centred around a field trip to a local beach where students collect data which is fed back to the society to be used in their analysis and reporting. Includes PDF activities and PowerPoints for learning activities, a risk assessment and links to websites as teacher resources.	5 – 10	Science, Geography
Marine Debris: A Legacy of Litter	National Geographic, US <a href="http://education.nationalgeographic.com/education/activity/marine-debris-a-legacy-of-litter/?ar_a=1&amp;ar_r=999">http://education.nationalgeographic.com/education/activity/marine-debris-a-legacy-of-litter/?ar_a=1&amp;ar_r=999</a>	MD & Litter	This unit of work concentrates on marine debris and its effects. It includes two short videos, activities, and a school litter audit which provide links between the school's litter and marine debris.	9– 10, VCE	Geography, Science, Civics & Citizenship
Marine Stormwater Pollution	Australian Marine Environment Protection Association (AUSMEPA) <a href="http://www.ausmepa.org.au/marine-stormwater-pollution/curriculum-materials.htm">http://www.ausmepa.org.au/marine-stormwater-pollution/curriculum-materials.htm</a>	MD & Litter	Educational resource to help teachers plan and undertake a unit of work about Marine Stormwater Pollution. Students learn about the problems caused by stormwater pollution and how they can prevent it.	5 – 8	Science, Civics & Citizenship, Geography, English
Oh My Garbage!	Victorian Association for Environmental Education (VAEE) <a href="http://www.vaee.vic.edu.au/index.php/re-sources-for-schools/oh-my-garbage">http://www.vaee.vic.edu.au/index.php/re-sources-for-schools/oh-my-garbage</a>	Litter, LCA & MD	OMG! is an interactive waste and litter reduction educational resource for secondary school educators. It offers a series of engaging, ready-to-use lesson plans that investigate product and packaging life cycles, litter that ends up as marine debris, and the impacts of litter.	7 – 10	Science, Maths, Civics & Citizenship, Geography, English
Ollie's World	Sustain Ability International Pty Ltd, Aust. <a href="http://www.olliesworld.com/html/shop.htm">http://www.olliesworld.com/html/shop.htm</a>	Waste	An interactive multimedia educational program on CD-ROM, accompanied by curriculum-linked units of work (there is a cost to order the CD-ROM, but there are also free online activities on the website).	F – 10	Geography, Economics, Science, Civics & Citizenship

Recycle Right lesson plans	Planet Ark, Aust. <a href="http://recyclingweek.planetark.org/kids-teachers/lesson-plans.cfm">http://recyclingweek.planetark.org/kids-teachers/lesson-plans.cfm</a>	Waste	Downloadable lesson plans with links to supporting resources. Fun activities for kids to learn how to Recycle Right and the environmental benefits that follow.	1 – 8	Science, English, Geography
Sources of Stormwater Pollutants	NSW Office of Environment and Heritage <a href="http://www.environment.nsw.gov.au/stormwater/HSIEteachguide/s25sourcespolln.htm">http://www.environment.nsw.gov.au/stormwater/HSIEteachguide/s25sourcespolln.htm</a>	Litter	Part of the department’s Stormwater Teaching Guide which aims to raise awareness, promote concern and increase skills in improving the quality of stormwater. This unit involves identifying where pollutants in a stormwater system may be coming from, and includes background material and related activities.	2 – 6	Science, Civics & Citizenship, The Humanities
The Quest for Less	US EPA <a href="http://www.epa.gov/osw/education/quest/quest.htm">http://www.epa.gov/osw/education/quest/quest.htm</a>	Waste	Provides hands-on lessons and activities related to preventing and reducing waste. The resource introduces the idea of natural resources as a source for many products that become waste, explains the quantity and types of waste created, and reviews the common methods of managing solid waste.	F – 8	Geography, Science
Trash and Climate Change	Planet Protector's Club, US <a href="http://www.epa.gov/wastes/education/pdfs/k00-001.pdf">http://www.epa.gov/wastes/education/pdfs/k00-001.pdf</a>	Waste	This publication is designed to educate children about the effects of product reuse and recycling on global climate change. Through a series of word games, the publication describes how children can prevent climate change by reducing solid waste.	4 – 6	Science, Civics & Citizenship, English, The Humanities, Maths

## Interactive Websites

Resource	Source	Focus	Description	AusVELS level(s)
Bert the Binman	Preston City Council, UK <a href="http://www.preston.gov.uk/thecouncil/news-room/media-resources/bert-binman-games">http://www.preston.gov.uk/thecouncil/news-room/media-resources/bert-binman-games</a>	Litter	There are two Bert the Binman interactive games. Graffiti Grimebuster is a game where students become a grime buster and help clean up the streets with special stream cleaning spray. In Clean Sweep students control a litter sweeper to collect litter along a street.	F – 6
Bin It	Wrigley's, UK <a href="http://www.chewitbinit.com/">http://www.chewitbinit.com/</a>	Litter	Bin It and Chew It Over help students consider their rights and responsibilities surrounding littered gum. It includes activities such as games, videos, quizzes and both have a set of downloadable lesson plans for teachers.	5 – 8
Clean Sweep USA	Keep America Beautiful, US <a href="http://www.cleansweepusa.org/default.aspx">http://www.cleansweepusa.org/default.aspx</a>	Waste & Litter	This educational site includes interactive games, teacher resources and links as part of lesson plans which explain waste management, recycling and litter.	5 – 8
Clean up the River	Clean Up Australia <a href="http://cleanup.noco2.com.au/">http://cleanup.noco2.com.au/</a>	Litter	Students choose avatars and their mode of transport along the river. Interesting facts are shared at “check points” along the river, which are later used in a test. Includes VELS and draft national curriculum links for teachers.	F – 6
Cool Australia: Student Toolbox – Waste	Cool Australia <a href="http://coolastralia.org/ca_topic/waste/">http://coolastralia.org/ca_topic/waste/</a>	Waste, Litter & MD	Videos, pictures, fact sheets, games, research articles and news items that can be sorted by year level.	F – 10
Dumptown - Recycle City	US EPA <a href="http://www.epa.gov/recyclecity/">http://www.epa.gov/recyclecity/</a>	Waste	This educational, thought-provoking and challenging game has students become Dumptown's new City Manager, responsible for cleaning up by implementing programs that encourage Dumptown's citizens to recycle and reduce waste. The game has been designed to make it easy for teachers to set goals that match up with lessons being taught in class.	2 – 6

Jean Michel-Cousteau's Ocean Adventures	Jean Michel-Cousteau's Ocean Adventures, US <a href="http://www.pbs.org/kqed/oceanadventures/educators/#lessonplans">http://www.pbs.org/kqed/oceanadventures/educators/#lessonplans</a>	MD	The Ocean Adventures resources include several online games and videos based on human impacts on our oceans, and include linked lesson plans.	5 – 8
Loop Scoops	Corporation for Public Broadcasting, US <a href="http://pbskids.org/loopscoops/happiness.html">http://pbskids.org/loopscoops/happiness.html</a>	LCA	A series of animated videos which explain how everyday items are made, designed to get students thinking. Units of work are linked to the videos.	1 – 4
Marine Debris	<a href="http://oceantoday.noaa.gov/marinedebris/">http://oceantoday.noaa.gov/marinedebris/</a>	MD	A short (3:19) but in-depth look at marine debris: what is it and how can people help? Links to the NOAA Marine Debris Program.	5 – 10
National Geographic Kids	National Geographic, US <a href="http://kids.nationalgeographic.com/kids/games/actiongames/">http://kids.nationalgeographic.com/kids/games/actiongames/</a>	Waste & Litter	National Geographic Kids has a wide range of interactive games available, including Creek Clean-up which involves students scooping litter out of a creek and Recycle Roundup where students are required to sort waste into rubbish, recycling and garden organics categories.	F – 6
Ollie Recycles	Sustain Ability International Pty Ltd, Aust. <a href="http://www.olliesworld.com/aus/index.html">http://www.olliesworld.com/aus/index.html</a>	Waste	Part of the Ollie's World suite of activities. Ollie Recycles is a website for kids all about the 3R's – "Reduce, Re-use, Recycle." It's full of games, puzzles and loads of information for your school projects.	F – 6
The Great Rubbish Roundup	Brisbane City Council, Qld <a href="http://www.brisbane.qld.gov.au/BCCWR/assets/bcc/pop-ups/waste-roundup-game/game.htm">http://www.brisbane.qld.gov.au/BCCWR/assets/bcc/pop-ups/waste-roundup-game/game.htm</a>	Waste	The Great Rubbish Roundup tests student knowledge about rubbish and recycling. Students are required to place items in the correct bins.	F – 6
Trash My Ad	<a href="http://trashmyad.com.au/View-Ads">http://trashmyad.com.au/View-Ads</a>	Litter	The results of a competition held by Keep Australia Beautiful WA for people to create an anti-littering TV or radio commercial. Includes a brief blurb from the creator at the end of each video.	5 – 10
VISY Enviromaniacs	VISY, Aus. <a href="http://www.visyenviromaniacs.com.au">www.visyenviromaniacs.com.au</a>	Waste	The Enviromaniacs games introduce students to various environmental topics while providing strong back-end lesson plans that meet curriculum objectives. There are chances for students, teachers and schools to win prizes for playing.	3 – 6

## Information Resources

Resource	Source	Focus	Notes
A Gutful of Plastic	Marine Education Society of Australia (MESA) <a href="http://www.mesa.edu.au/seaweek2001/gutful.asp">http://www.mesa.edu.au/seaweek2001/gutful.asp</a>	MD	Poster showing a whale autopsy and the contents of its stomach.
Chewing Gum Facts website	Chewing Gum Facts, US <a href="http://www.chewinggumfacts.com/">http://www.chewinggumfacts.com/</a>	Litter	Information about chewing gum, and links to other articles.
Things you should know about litter and litterers	NSW EPA <a href="http://www.epa.nsw.gov.au/resources/warr/130800LPKThingsKnow.pdf">http://www.epa.nsw.gov.au/resources/warr/130800LPKThingsKnow.pdf</a>	Litter	Part of the NSW EPA's litter prevention resources.
Friendly Floatees World Tour	Frank Jacobs, Strange Maps, US <a href="http://bigthink.com/ideas/21327">http://bigthink.com/ideas/21327</a>	MD	Track rubber ducks that entered the ocean after a shipping container fell off a boat in 1992. Great way to see how such a small item can travel all around the world.
Harmful Marine Debris	Dept. of the Environment, Aust. <a href="http://www.environment.gov.au/biodiversity/threatened/publications/marine-debris.html">http://www.environment.gov.au/biodiversity/threatened/publications/marine-debris.html</a>	MD	Fact sheets and information about marine debris
Guide for Improving Student Attitudes toward Recycling	Worcester Polytechnic Institute, US <a href="http://www.wpi.edu/Pubs/E-project/Available/E-project-121609-172634/unrestricted/GuideforImprovingStudentAttitudesTowardsRecycling.pdf">http://www.wpi.edu/Pubs/E-project/Available/E-project-121609-172634/unrestricted/GuideforImprovingStudentAttitudesTowardsRecycling.pdf</a>	Waste & Litter	Guide produced following research into the attitudes of secondary school students about recycling and involvement in their community at a school in Costa Rica.
Life cycle of sewer litter	The Fat Trap, NZ <a href="http://www.fattrap.co.nz/householder-ddt-life-cycle.shtml">http://www.fattrap.co.nz/householder-ddt-life-cycle.shtml</a>	Litter	Great info and pictures of what can happen if you use the sewer as a bin.

Materials science to the rescue: easily removable chewing gum	Science in School, US <a href="http://www.scienceinschool.org/print/594">http://www.scienceinschool.org/print/594</a>	Litter	The history of chewing gum, how the chemistry of the gum affects its properties and how scientists are using this knowledge to make chewing gum less of a pollutant.
Pacific trash vortex animation showing drift of ocean pollution	Greenpeace International , US <a href="http://www.greenpeace.org/international/en/news/features/ocean_pollution_animation/">http://www.greenpeace.org/international/en/news/features/ocean_pollution_animation/</a>	MD	Animation showing the Pacific trash vortex and drifting of ocean pollution.
Paper Life Cycle	GreenBlue, US <a href="http://thepaperlifecycle.org/">http://thepaperlifecycle.org/</a>	LCA	Aims to promote wider understanding and positive action around the key environmental issues affecting the life cycle of paper, and serves as a resource that enables customers to make informed decisions about the paper products they purchase.
Patagonia Footprint Chronicles	Patagonia, US <a href="http://www.patagonia.com/us/footprint/index.jsp?src=vuca0045">http://www.patagonia.com/us/footprint/index.jsp?src=vuca0045</a>	LCA	Shows the supply chains of Patagonia’s products. Examines Patagonia’s life and habits as a company, with the goal of reducing adverse social and environmental impacts, on an industrial scale.
Plastic Debris, Rivers to Sea project	Algalita Marine Research Foundation, US <a href="http://www.plasticdebris.org/index.html">http://www.plasticdebris.org/index.html</a>	MD & Litter	Website about marine debris; project assessing and reducing sources of plastics and trash in urban runoff.
Plastiki	Adventure Ecology <a href="http://www.theplastiki.com/">http://www.theplastiki.com/</a>	Litter	Learn about the voyage of the Plastiki, a boat made of plastic bottles.
Product Road Maps	NSW <a href="http://www.curriculumsupport.education.nsw.gov.au/env_e_d/teaching/focus/purchase.htm">http://www.curriculumsupport.education.nsw.gov.au/env_e_d/teaching/focus/purchase.htm</a>	LCA	Provides a good depiction of how everyday items are made such as paper
Recycled Mixed Plastics Purchasing Toolkit	<a href="http://ecobuy.org.au/recycled-plastics-toolkit">http://ecobuy.org.au/recycled-plastics-toolkit</a>	Waste	This ECO-Buy toolkit provides users with independent information on recycled plastic products. It includes factsheets, business cases, case studies and a “recycled mixed plastic costing” calculator.
Resources for Educators	California Coastal Commission, US <a href="http://www.coastal.ca.gov/publiced/directory/educate.html">http://www.coastal.ca.gov/publiced/directory/educate.html</a>	Litter	Lots of information, music, videos, and links to other resources regarding marine debris and litter.



School Recycling	Brisbane City Council, Qld <a href="http://www.brisbane.qld.gov.au/environment-waste/green-living/green-schools/school-recycling/index.htm">http://www.brisbane.qld.gov.au/environment-waste/green-living/green-schools/school-recycling/index.htm</a>	Waste	Video profiles of school waste practices as a result of audits.
Seal the Loop	Zoos Victoria <a href="http://www.zoo.org.au/sealtheloop">http://www.zoo.org.au/sealtheloop</a>	Litter & MD	Information predominantly on fishing tackle litter but also has a great story about a local seal
Seaweed 2012: Marine Debris	Marine Education Society of Australia (MESA) <a href="http://www.mesa.edu.au/seaweed2012/default.asp">http://www.mesa.edu.au/seaweed2012/default.asp</a>	MD	Background information and links about marine debris.
Some Approaches to the Question of Chewing Gum Litter	Edible Geography, UK <a href="http://www.ediblegeography.com/some-approaches-to-the-question-of-chewing-gum-litter/">http://www.ediblegeography.com/some-approaches-to-the-question-of-chewing-gum-litter/</a>	Litter	Great photos and information about chewing gum litter; what has been, is being and could be done about it.
Sticky Deposits, Spit or Swallow?	Science and the Environment, UK <a href="http://www.williambowles.info/env/sticky.html">http://www.williambowles.info/env/sticky.html</a>	Litter	Information about the history of chewing gum and UK policies about it.
Straw Wars	Sculpt the Future Foundation, UK <a href="http://strawwars.org/">http://strawwars.org/</a>	Litter	Group trying to lower the use of straws ending up as litter and landfill in the UK
Take 3 website	Take 3, Aust. <a href="http://www.take3.org.au/">http://www.take3.org.au/</a>	MD & Litter	A group which raises awareness of marine debris and encourages people to take 3 pieces of litter from places we visit
VLAA website	Victorian Litter Action Alliance (VLAA) <a href="http://www.litter.vic.gov.au/">http://www.litter.vic.gov.au/</a>	Litter	Lots of information, fact sheets and research results on litter
Waste Wise resources	Noosa River Catchment Association, Qld <a href="http://www.noosariver.com.au/wastewise/">http://www.noosariver.com.au/wastewise/</a>	Litter & Waste	“Resources and Links” and “Games and Videos” contain great databases of resources from around the world.

## Videos

Name	Weblink	Focus	Notes
Anti-Litter Commercial: Enviro-Man (US)	<a href="http://www.youtube.com/watch?v=n2qMOejHQ1Q&amp;NR=1&amp;feature=endscreen">http://www.youtube.com/watch?v=n2qMOejHQ1Q&amp;NR=1&amp;feature=endscreen</a>	Litter	An anti-litter advertisement developed by a group of year 10 science students (2:01).
Don't be a litter bug	<a href="http://www.youtube.com/watch?v=aWq1jWb0PNO">http://www.youtube.com/watch?v=aWq1jWb0PNO</a>	Litter	Teenagers doing the right thing and making littering un-cool (2:30).
Life cycle of a bottle (US)	<a href="http://www.youtube.com/watch?v=glAPkpeKvfE">http://www.youtube.com/watch?v=glAPkpeKvfE</a>	LCA	A very quick overview of how plastic water bottles are made (1:06).
Litter, Get a Grip! (Ireland)	<a href="http://www.youtube.com/watch?v=urdfF5znjJA">http://www.youtube.com/watch?v=urdfF5znjJA</a>	Litter	Ad by Belfast City Council, shows what one piece of gum can do (0:30).
One of the dirtiest beaches in the world – Hawaii (UK)	<a href="http://www.youtube.com/watch?v=9eefyztmll&amp;feature=relmfu">http://www.youtube.com/watch?v=9eefyztmll&amp;feature=relmfu</a>	MD	Developed by the BBC, this short video illustrates the extent of marine debris washing up on Hawaii's islands (2:25).
St Peters Highfields Leicester Neighbourhood Monitoring (UK)	<a href="http://www.youtube.com/watch?v=_p7Czyg8SI&amp;feature=BFa&amp;list=PL671D88700654C312&amp;lf=results_main">http://www.youtube.com/watch?v=_p7Czyg8SI&amp;feature=BFa&amp;list=PL671D88700654C312&amp;lf=results_main</a>	Litter	A series of "covert" videos taken of people littering around their area (each 1-2 mins in length).
The Majestic Plastic Bag - A Mockumentary (US)	<a href="http://www.youtube.com/watch?v=GLgh9h2ePYw">http://www.youtube.com/watch?v=GLgh9h2ePYw</a>	Litter	The "life cycle" and adventures of a plastic bag (4:00).
The Story of Stuff Project (US)	<a href="http://www.youtube.com/playlist?list=PL77CE8943362CB9B0">http://www.youtube.com/playlist?list=PL77CE8943362CB9B0</a>	Waste & LCA	The original "Story of Stuff" film (21:25) and the rest of the series (approx. 8 minutes each). In terms of waste, also look at "The Story of Bottled Water", "The Story of Electronics" and "The Story of Cosmetics".
Waste Deep (Aust.)	Sustainable Table <a href="http://sustainabletable.org.au/Hungryforinfo/WasteDeep/tabid/144/Default.aspx">http://sustainabletable.org.au/Hungryforinfo/WasteDeep/tabid/144/Default.aspx</a>	MD & Waste	This short documentary looks at the issue of food and packaging waste and the long term impacts of excessive consumption and convenience-at-all-cost mindset. (21:43 Vimeo)
What goes around, gums around (US)	<a href="http://www.youtube.com/watch?v=dX9-x6ThrQ4&amp;feature=related">http://www.youtube.com/watch?v=dX9-x6ThrQ4&amp;feature=related</a>	Litter	Video made by students about chewing gum litter (0:56).
Wiltshire Wildlife Trust (UK)	<a href="http://www.youtube.com/watch?v=51i3oOqKCf0">http://www.youtube.com/watch?v=51i3oOqKCf0</a>	Litter	Forms part of a secondary school litter education pack with how one school tried to combat litter (1:46).