

SOLID WASTE/ 3 R's

Annotated Bibliography of K-12 Educational Resources

Wisconsin Center for Environmental Education (07/08)

The following list consists of selected resources on the general topics of Solid Waste and Reducing, Reusing, and Recycling. All materials are available for loan at the WCEE Resources Library. Many more resources are available on these topics as well as other specific sub-topics such as composting. Please call or visit the WCEE for assistance and/or additional information.

Teaching Activity Guides

Super Saver Investigators by Institute for Environmental Education, Chagrin Falls, OH. (1991). *Activities are divided into 15 subject chapters, many with background information provided. Very diverse range of topics relating to solid waste and recycling. The format is quite user-friendly, similar to popular national curricula like Project Learning Tree, including many helpful cross-referencing indices.*

Grade levels: K-6 Length: 384 pages WCEE call number: AC SW 32

What a Waste! A Teacher's Resource for Integrating the Solid Waste Crisis into the Classroom by Millie Horosko, Southwest Connecticut Regional Recycling Operating Committee, Norwalk, CT. (1992).

Clear activity setup with many helpful sub-headings, though the appropriate grade level for each activity is not clearly identified. Focuses on solid waste problems and disposal in the first section, then on the "three Rs" and composting in the second half. Includes many student worksheets.

Grade levels: K-6 Length: 26 activities, 100 pages WCEE call number: AC SW 1

Closing the Loop: Exploring Integrated Waste Management and Resource Conservation by the California Integrated Waste Management Board, California Integrated Waste Management Board, Sacramento, CA. (2001).

A colorful activity guide with organization similar to Project Learning Tree or other national curricula. Includes sections on conservation, waste management, composting, and more. Setup revolves around two main modules: grades K-3 and grades 4-6.

Grade levels: K-6 Length: 50 activities, 565 pages WCEE call number: AC SW 22

Aluminum Beverage Cans: The ABC's of Environmental Education by Can Manufacturers Institute, NAAEE & Can Manufacturers Institute, Washington, D.C. (2004).

Includes background information, in-class experiments, and extracurricular activities that meet EE guidelines of NAAEE and Project 2061: Benchmarks for Science Literacy. It uses the aluminum beverage can as a case study in EE.

Grade levels: 4-6 Length: 76 pages WCEE call number: AC SW 54

An Ounce of Prevention: A Middle-level Science Curriculum on Source Reduction by National Science Teachers Association. (1996).

Topics include solid waste but also activities on packaging, hazardous waste, etc. Activities include action projects. Setup is very user-friendly, similar to national curricula like Project Learning Tree. Grade levels: 5-9 Length: 15 activities, 124 pages WCEE call number: AC SW 30

Cycles by the Regional Environmental Education Program, Schuylkill Center for Environmental Education, Philadelphia, PA. (1995).

Lessons are intended to be taught as a sequential module, and range from solid waste to recycling and composting topics. Very usable format, with many helpful sub-headings for each activity. Also provides many sections of supplemental information.

Grade levels: 5-9 Length: 9 lessons, 230 pages WCEE call number: AC SW 26

Environmental Action: Waste Reduction (Teacher and Student Editions) by E2:

Environment and Education, Dale Seymour, Menlo Park, CA. (1998).

Setup is based on 4 modules that essentially follow knowledge through citizen action experience sequence. The numerous appendices provide much background information, as well as links to other books, organizations, and many other resources.

Grade levels: 5-9 Length: 16 activities, 170 pages WCEE call number: AC SW 37

Understanding Garbage and Our Environment by Andrea Nolan, Terrific Science Press, Middletown, OH. (1999).

Set up as 8 lessons, with multiple activities for each. Many activities build citizen action skills and experience. Helpful and usable sub-headings and many sections of supplemental information are provided.

Grade levels: 5-9 Length: 305 pages WCEE call number: AC SW 9

Garbage, Trash, and Refuse: Problems and Issues by Harold Hungerford, William Bluhm, and Austin Winther, Stipes Publishing, Champaign, IL. (1999).

Written by Harold Hungerford, a long-time leader in the field of Environmental Education. Focuses on higher-level skills of EE, such as citizen action skill building and experience. Topics center around municipal/community-based solid waste issues.

Grade levels: 6-12 Length: 168 pages WCEE call number: AC SW 45

Exploring Environmental Issues: Municipal Solid Waste by Project Learning Tree, American Forest Foundation, Washington, DC. (1997).

A Project Learning Tree Secondary Education Program publication. The 8 student activities are organized as a module and supplemented with an extensive set of appendices providing background and extension.

Grade levels: 9-12 Length: 8 activities, 136 pages WCEE call number: AC SW 16

Videos

The Rotten Truth by Children's Television Workshop. (1990).

A 3-2-1 Contact special that deals with the destination(s) of the things we throw away. Slightly dated, but kid-hosted and informative.

Grade levels: K-4 Length: 30 minutes WCEE call number: AV SW 1

Kids Talkin' Trash by Alameda County Waste Management Authority. (1995).
Somewhat specific to this California county, but still with valuable information focusing on the "4 Rs": reduce, reuse, recycle, and rot. Uses "real" students/situations (opposed to scripts).
Grade levels: K-6 Length: 14 minutes WCEE call number: AV SW 9

Lost Book Report Caper, The by Missouri Botanical Garden Videos, St. Louis, MO. (1994).
The search for a lost book report leads to discussions about landfills, recycling centers, and the "Three Rs". Looks closely at the pathway of the trash after we put it in the garbage can. The use of a storyline helps facilitate the discussion of waste issues.
Grade levels: 3-6 Length: 20 minutes WCEE call number: AV SW 18

Earth at Risk: Recycling by Schlessinger Video Productions, Bala Cynwyd, PA. (1993).
A partially kid-hosted look at many aspects of recycling, including explorations of terms such as "waste stream" and "pre-cycling". Also looks at consumer choice issues, such as the relationship between packaging and waste generation.
Grade levels: 5-12 Length: 30 minutes WCEE call number: AV SW 17

Books for Youth

Garbage Monster, The by Joni Sensel, Dream Factory Books, Enumclaw, WA. (2000).
Fiction. A fun and highly colorful book about the family garbage trying to take out the family, instead of the other way around. The story (in rhyming prose) leaves many topics open for classroom discussion.
Grade levels: PK-4 Length: 21 pages WCEE call number: BY SW 17

Theo and the Giant Plastic Ball by Carole Douglass, United Nations Environment Programme. (2004).
This children's book tells the story of a young boy who makes a giant ball out of old plastic bags and found his village. It demonstrates the amount of waste we produce, and how action and awareness on the part of the citizen could drastically improve the damage done by plastic bags. In the back of the book there are facts about plastic bags and tips for how to help.
Grade level: K-4 Length: 30 pages WCEE call number: BY SW 22

Pee Wee and the Magical Compost Heap by Lorraine Roulston, Recycling Resource Service, Pickering, Ontario. (1993).
Fiction. Searching for a lost ring, four children (with the help of a magic butterfly) shrink to the size of many of the critters in the compost heap they explore. Includes a glossary and some directions for maintaining one's own compost heap.
Grade levels: K-6 Length: 22 pages WCEE call number: BY SW 15

Where Does Our Garbage Go? by Joan Bowden. Bantam Doubleday Dell Publishing Group, Inc., New York, NY. (1992).
A non-fiction pop-up book dealing with topics ranging from garbage processing to recycling to paper production. Interactive, with many facts and much information per page.
Grade levels: K-6 Length: 10 pages WCEE call number: BY SW 5

Eco-Kids #2: The Clean-up Crew, The by Kathryn Makris, Avon Books, New York, NY. (1994).

A novel about a group of kids who start a recycling campaign to help protect the environment.
Grade levels: 4-8 Length: 150 pages WCEE call number: BY SW 7

Trash Attack by Candace Savage, Firefly Books, Buffalo, NY. (1990).

A short, non-fiction chapter book set up into two sections: "The Problems" and "The Solutions."
Many pages include extension activities, vocabulary words, etc. Also includes an index.

Grade levels: 4-9 Length: 56 pages WCEE call number: BY SW 6

Wise up on Waste by The Fairest Cape Association, The Fairest Cape Association, Cape Town South Africa. (N/A).

Contains information on waste in general, recycling of various materials, setting up of recycling depots, composting, and hazardous waste, and landfills.

Grade levels: 5-9, 9-12 Length: 57 pages WCEE call number: BY SW 23

Reference/Background Books

Garbage Land: On the Secret Trail of Trash by Elizabeth Royte, Little Brown and Co., New York, NY. (2005).

Royte leads us on an adventure that begins when our trash hits the can. Then meet an odor chemist, garbage fairies and recycling gurus, neighbors of landfills, CEOs making fortunes by encouraging waste and/or encouraging recycling, and scientists.

Grade levels: 9-12, adult Length: 311 pages WCEE call number: BA SW 15

Garbage Primer, The by Lyons & Burford, New York, NY. (1993).

Published with The League of Women Voters Education Fund, an overview of garbage problems and solutions being pursued. Also includes recommendations for citizen action. Also includes an index and additional resources list.

Grade levels: 9-12, adult Length: 181 pages WCEE call number: BA SW 4

Recycler's Handbook, The by Earth Works Press, Berkeley, CA. (1990).

In the "50 Simple Things..." series, a main focus is on small activities or actions an individual can do to reduce waste. Includes information on recycling everything from plastics to organics to clothes. Also includes background information and statistics.

Grade levels: 9-12, Adult Length: 132 pages WCEE call number: BA SW 6

Paper or Plastic: Searching for Solutions to an Overpackaged World by Daniel Imhoff, Sierra Club Books, San Francisco, CA. (2005).

An examination of product packaging, its problems, and possible solutions. Includes a checklist assessment of packaging practice.

Grade levels: Adult Length: 168 pages WCEE call number: BA SW 16

Solid Waste Mess: What Should We Do With the Garbage, The by North American Association for Environmental Education, Washington, DC. (1994).

Published in the Environmental Issues Forums series by the NAAEE. A very complete resource covering the basic problems as well as behavioral and technological solutions.

Grade levels: 9-12, adult Length: 40 pages WCEE call number: BA SW 8