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Environmental education covers a broad range of topics from recycling and pollution to natural resources and wildlife. Environmental education programs target all ages from preschool children to graduate students. This guide focuses on resources for teaching K-12 students about the environmental effects of pollution and waste and strategies for improving the environment. It also includes some industrial chemistry resources.

This reference guide includes links to classroom activities, background and policy information, standards, and reference sources that teachers can use to develop their own environmental education lesson plans. Because the scope of the topic is so broad, this is not meant to be an exhaustive list. Rather, it is designed to give you some places to start looking for resources. **Information to help you continue your research at your local library** is included at the end of the guide.

Materials held in the WMRC Library collection are followed by a call number in square brackets (*[Call Number]*). The WMRC Library does not lend materials directly to individuals. However, the Library does accept **interlibrary loan requests**. E-mail library@wmrc.uiuc.edu with comments or questions.

[\[General Information & Standards\]](#) [\[Classroom Activities\]](#) [\[Webquests\]](#) [\[Science Fair Projects\]](#) [\[Reference Sources\]](#) [\[Metasites, Publication Lists & Bibliographies\]](#) [\[Associations, Organizations & Professional Development\]](#) [\[Periodicals\]](#) [\[E-mail lists & Discussion Groups\]](#) [\[Locating More Information\]](#)

General Information & Educational Standards**General Information**

Adapting Environmental Education Materials (Washington, DC : Peace Corps, 1999.
Online at <http://www.peacecorps.gov/publications/pdf/m0059.pdf>)

Provides environmental educators with the tools to adapt existing environmental education resources to local environmental issues, cultures, and audiences.

Education for a Sustainable Future: A Resource for Curriculum Developers, Teachers, and Administrators (Winnipeg, Manitoba, Canada : Manitoba Education and Youth, 2000. Online at <http://www.edu.gov.mb.ca/ks4/docs/support/future/sustaineducation.pdf>)

Discusses methods for integrating sustainable development concepts into the curriculum in Manitoba, Canada. Many of the principles should be applicable to other geographic areas.

Education for Environmental Sustainability by David L. Haury (Columbus, OH: ERIC

Clearinghouse for Science Mathematics and Environmental Education, 1998. ERIC Digest 433194. Online at http://www.ed.gov/databases/ERIC_Digests/ed433194.html)

Education for Sustainable Development Toolkit version 2.0

<http://www.esdtoolkit.org/>

Developed by Rosalyn McKeown, this toolkit will help schools and communities develop a process for creating locally relevant and culturally appropriate education. It is based on the idea that communities and educational systems need to dovetail their sustainability efforts. Ideally, local educational systems can reorient existing curriculums to reinforce local sustainability goals.

Environmental Education: A Resource Handbook by Joe E. Heimlich (Bloomington, IN : Phi Delta Kappa Educational Foundation, 2002. ISBN: 0873678346)

Intended as a ready reference for educators - both for understanding and incorporating environmental education into classrooms, curricula, and programs and as a handbook for finding valuable resources for environmental education "across the curriculum."

Environmental Education Teacher Resource Handbook: A Practical Guide for K-12

Environmental Education by Richard J. Wilke (Thousand Oaks, CA : Corwin Press, 1997. ISBN: 080396370X)

Provides information on the historical background of environmental education curriculum and presents current, comprehensive information on useful publications, standards, and special materials for implementing a K-12 environmental education program.

Environmental Education Improves Our Everyday Lives

<http://www.epa.gov/enviroed/>

Background and policy information from the U.S. Environmental Protection Agency.

Environmental Education in the Schools: Creating a Program that Works! by Judy A.

Braus and David Wood (Washington, DC : Peace Corps, 1993. Online at http://www.peacecorps.gov/library/pdf/M0044_enveduc.pdf)

Outlines the process for developing and implementing an environmental education program.

Environment-Based Education: Creating High Performance Schools and Students

(Washington, DC : The North American Association for Environmental Education; The National Environmental Education and Training Foundation, 2000. Online at <http://www.neetf.org/pubs/NEETF8400.pdf>)

Essential Readings in Environmental Education edited by Harold R. Hungerford, William J. Bluhm, Trudi L. Volk, and John M. Ramsey (Champaign, IL : Stipes Publishing, 2001. ISBN: 1588740706)

This book, which is in its second edition, attempts to take the reader from strong criticisms of environmental education to equally strong statements of philosophy as well as some of the research which underlies these elements. The editors and authors of invited papers hope that this book will serve as a basis for discussion and debate in both undergraduate and graduate classes.

From Classroom to Community and Beyond : Educating for a Sustainable Future : Report by the President's Council on Sustainable Development. Public Linkage,

Dialogue, and Education Task Force (Washington, DC: President's Council on Sustainable Development, 1997.) [352. 357 F931.]

This report reflects the observations, findings, and recommendations made by the Public Linkage, Dialogue, and Education Task Force (PLTF) of the President's Council on Sustainable Development (PCSD), appointed by President Clinton.

A Guide to Curriculum Planning in Environmental Education (Madison, WI :

Wisconsin Department of Public Instruction, 1994. Available for a charge at http://www.dpi.state.wi.us/dpi/dltcl/eis/pubsales/scienc_1.html)

Provides a direction in planning a comprehensive environmental education program based on perceptual awareness, knowledge, environmental ethics, citizen action skills, and citizen action experience.

The Handbook of Environmental Education by Joy Palmer and Philip Neal (Routledge, 1994. ISBN: 0415093147)

Explains what environmental education is and how it can best be implemented at the school and classroom level. Useful for school administrators and curriculum coordinators to find advice on establishing a whole-school policy and for classroom teachers to find practical ideas for planning and assessing environmental education in the whole curriculum context.

Investigating and Evaluating Environmental Issues and Actions: Skill Development Program by Harold Hungerford, Ralph Litherland, R. Ben Peyton, John Ramsey, and Trudi Volk (Champaign, IL : Stipes Publishing, 1996.

Teaching about Societal Issues in Science Classrooms by Wendy Sherman McCann (Columbus, OH: ERIC Clearinghouse for Science Mathematics and Environmental Education, 1997. ERIC Digest 432443. Online at http://www.ed.gov/databases/ERIC_Digests/ed432443.html)

Discusses methods for examining the role of science in society through the study of community issues, including the effects of people on their environments.

Teaching Critical Thinking through Environmental Education by Robert W. Howe and Charles R. Warren (Columbus, OH: ERIC Clearinghouse for Science Mathematics and Environmental Education, 1989. ERIC Digest 324193. Online at <http://ericae.net/edo/ed324193.htm>)

Describes how a sound environmental education curriculum can be used to teach critical thinking skills to students.

Using Environment-Based Education to Advance Learning Skills and Character Development: A Report, Annotated Bibliography, and Resource Guide (Washington, DC : The North American Association for Environmental Education; The National Environmental Education and Training Foundation, 2001. Online at <http://www.neetf.org/pubs/EnviroEdReport.pdf>)

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Educational Standards

Environmental Education Materials : Guidelines for Excellence (Troy, OH: North American Association for Environmental Education, c1996. Online at <http://naaee.org/npeee/materials.php>) [372. 357 E61g.]

Provides recommendations for selecting, evaluating, and producing quality environmental education lesson plans, curricula, and other instructional materials. Workbook is available online in [HTML](#) and [PDF](#).

Essential Learnings in Environmental Education : A Database for Building Activities and Programs (Troy, OH: North American Association for Environmental Education, 1990. List of topics online at <http://naaee.org/npeee/learnerguidelines/ELEE-iiiB.html>) [375.0 083 E78.]

Excellence in EE – Guidelines for Learning (K-12)

Guidelines: http://naaee.org/npeee/learner_guidelines.php

Executive summary & self-assessment tool: <http://naaee.org/npeee/execsum-intro.php>

Provides students, parents, educators, home schoolers, policy makers, and the public a set of common, voluntary guidelines for environmental education.

Guidelines for the Initial Preparation of Environmental Educators

http://naaee.org/npeee/new_ee.php

Developed by the North American Association for Environmental Education, this is a set of recommended guidelines for the pre-service preparation of environmental educators.

Classroom Activities

This section includes lesson plans, activities, and curricula.

[\[Preschool\]](#) [\[K-6\]](#) [\[Middle School\]](#) [\[High School\]](#) [\[All Grades\]](#)

Preschool

Earth Child 2000 with Teacher's Guide: Early Science for Young Children by Kathryn Sheehan & Mary Waidner (San Francisco, CA: Council Oak Books, 1997. ISBN: 1571780548)
For ages 4-8.

Earthways: Simple Environmental Activities for Young Children by Carol Petrash and Donald Cook (Gryphon House, 1992. ISBN: 087659156X)
Organized by seasons, this resource book devotes large sections to various nature crafts and natural toys with which young children can celebrate the gifts of the seasons and experience the rhythms and changes of their world.

Picture Books and the Environment: Bibliography and Study Guide

<http://www.ferrum.edu/thanlon/ecology/ecopicbks.htm>

Compiled by Dr. Tina L. Hanlon of Ferrum College. Annotated bibliography of fiction and nonfiction picture books with environmental themes. Very helpful for teachers of young children who want to integrate environmental materials into their classrooms.

Starting Early: Environmental Education during the Early Childhood Years by Ruth A. Wilson (Columbus, OH: ERIC Clearinghouse for Science Mathematics and Environmental Education, 1996. ERIC Digest 402147. Online at http://www.ed.gov/databases/ERIC_Digests/ed402147.html)

Emphasizes the importance of introducing environmental concepts at an early age and provides guidelines for developing an environmental education program for preschool children.

What Can I Teach My Young Child About the Environment?

<http://www.kidsource.com/education/teach.environment.p.k12.3.html>

Explains why environmental education should start in early childhood and describes some strategies for introducing environmental concepts to young children.

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K-6

Air, Land & Water : Activity Book and Teachers' Manual (Springfield, IL: Illinois Environmental Protection Agency, Office of Public Information, 1997.) [372. 357 A298.]
Activities for 5th and 6th grades.

All "Trashed" Out : An Activity Guide to Solid Waste Management for Grades K-6 (Springfield, IL: Illinois Dept. of Energy and Natural Resources, Office of Recycling and Waste Reduction, [1992]) [ILENR RR 92/02.]
Classroom activities for students in grades K-6.

Awesome Aquifer Education Kit (Groundwater Foundation, no year given. Available for a charge from the [Groundwater Foundation](#))

Use as a launching point to empower students with an understanding about how groundwater benefits their lives through classroom style lessons and hands-on experiments. For grades 4-5.

Case of the Broken Loop (Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 1998. Online at <http://www.epa.gov/epaoswer/osw/kids/pdfs/4-6.pdf>) [EPA 530 K-98 002.]

Part of EPA's Planet Protectors Club, aimed at grades K-6. Materials are aimed at kids but can be integrated into classroom activities.

Closing the Loop Sampler : Five Lessons from the Curriculum on Exploring Integrated Waste Management and Resource Conservation (Sacramento, CA: California Integrated Waste Management Board Office of Integrated Environmental Education, 2000. Online at <http://www.ciwmb.ca.gov/schools/Curriculum/CTL/>) [372.357 C645.]

Compilation of 50 activities to help students discover and nurture an environmental ethic and stewardship for natural resources. The activities focus on solid waste and environmental awareness topics including landfills, recycling, packaging, resource conservation, waste prevention, worm composting, and more. The sampler contains five lessons.

Consider the Earth: Environmental Activities for Grades 4-8 by Julie M. Gates (Teacher Ideas Press, 1999. ISBN: 1563087251)

Activities cover a wide range of environmental topics including water, soil, wildlife, plants, ecosystems, weather, environmental problems, and oceans. Each chapter begins with an explanation of the topic, followed by lesson plans for activities, supplementary and alternative activities, vocabulary definitions, and discussion questions that enhance student understanding of key concepts.

Counting on People: Elementary Population and Environmental Activities by Pamela Wasserman and Anne Scullard (Washington, DC : Zero Population Growth Inc., 1994. ISBN: 0945219040)

Serves as a primer on population dynamics and environmental impacts and fosters respect for the needs of others and stresses the importance of using cooperative strategies to promote a high quality of life for all that share our planet.

Designing an Ecologically Sound City by Dianne S. Vance (Lansing, MI: Great Lakes Collaborative, [199?]. Online at <http://explorer.scrtec.org/explorer/explorer-db/html/783750693-447DED81.html>) [577. 071 V222d.]

Lesson plan for grades 4-6. The class is set up in cooperative learning groups of four or five students to make students aware of the need to respect their environment, and its natural resources and to apply that knowledge.

Dig In!: Hands-on Soil Investigations by NSTA Press and the USDA Natural Resources Conservation Service (NSTA Press, 2001. ISBN: 0873551893)

Twelve activities and two original stories help students learn about soil formation, habitats and land use, animals that depend on soil, plants that grow in soil, soil science, and soil conservation. For grades K-4.

Drop Swap and Roll : The Game of Reuse and Recycling (Washington, DC: U.S. Environmental Protection Agency, [1998]. Online at <http://www.epa.gov/epaoswer/osw/kids/quest/pdf/57game.pdf>) [EPA 530 E-98 003.]

Board game for grades 4-6. Students must get rid of their "trash" cards by dropping off items at appropriate bins (e.g., recycling, composting, or reuse bins) stationed on the playing board. Students learn facts about waste management as they move around the board.

Earth Child 2000 with Teacher's Guide: Early Science for Young Children by Kathryn Sheehan & Mary Waidner (San Francisco, CA: Council Oak Books, 1997. ISBN: 1571780548)
For ages 4-8.

Eco-Fun: Great Projects, Experiments, and Games for a Greener Earth by David Suzuki and Kathy Vanderlinden (Douglas & McIntyre, 2001. ISBN: 1550548239)
Projects cover a range of difficulty and include a mix of scientific experiments to do at home or school. Activities include building a solar panel, making recycled paper, building a worm composter and creating a forest ecosystem in a jar. For ages 8-11.

Eco-Inquiry : A Guide to Ecological Learning Experiences for the Upper Elementary/ Middle Grades by Kathleen Hogan (Dubuque, IA: Kendall/Hunt, 1994. ISBN: 0840395841) [577. 071 H714e.]
Offers 3 modules, each with a different ecological challenge for students. The modules can stand alone or can be used in sequence at one or several grade levels. Each module contains from 7 to 10 lessons and requires from 4 to 7 weeks for completion.

Environmental Awareness Activities for Librarians and Teachers: 20 Interdisciplinary Units for Use in Grades 2-8 by Martha Seif Simpson (McFarland & Co., 1995. ISBN: 0786400641)
20 divided into three broad categories (Our Planet's Resources, Our Planet's Natural Habitats, and Preserving Our Planet). Each unit gives specific activities in library skills, arts and crafts, spelling and vocabulary, geography, math, music and theater arts, English composition, science, history and sociology, and other topics for discussion. Suggested resources, additional reading lists and a list of addresses to write to for further information conclude each environmental unit.

Environmental Detectives by Kevin Beals with Carolyn Willard (Berkeley, CA: University of California, Berkeley Lawrence Hall of Science, 2001. ISBN: 0924886234)
Provides students the opportunity to grapple with a complex, interdisciplinary scientific problem. They hear statements of various "suspects" in the crime. They study and discuss reference materials, including records, newspaper articles, charts, graphs, and even "secret documents," and integrate all of this information with their own test results. For grades 5-8.

Exploring the Environment through Children's Literature: An Integrated Approach by Carol M. Butzow (Teacher's Idea Press, 1999. ISBN:

Follow That Trail! (Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 1998. Online at <http://www.epa.gov/epaoswer/osw/kids/pdfs/k-3.pdf>) [EPA 530 K-98 001.]
For grades K-3. Part of EPA's Planet Protectors Club.

The Great Lakes in my World : An Activities Workbook for Grades K-8 (Chicago, IL: Lake Michigan Federation, 1989. Available from the [Lake Michigan Federation](#) for \$25.00.) [372. 8977 G786.]
This 160-page manual provides information and activities that are designed to fit into regular curriculum units in the subject areas of science, social studies, math, and language arts. While some of the activities are linked, most are designed for independent use, or to be sequenced at the discretion of the teacher. Activities include role plays, board games, demonstrations, data analysis, and experiments, some of which require innovative problem solving.

Ideas for Environmental Education: In the Elementary Classroom by Kath Murdoch (Heinemann, 1994. ISBN: 0435083473)
Guide to designing and implementing environmental education at the classroom and

whole-school levels. It offers teachers practical ideas to help children investigate, understand, and celebrate their local and global environments. Detailed activity plans for across all curriculum areas include unit outlines, ideas for assessment and evaluation, and a list of resources.

Junior Environmental Activities on File (New York, NY: Facts on File, 1997. ISBN: 081603208)

Reference book of activities that illustrates ecological knowledge and environmental studies. It offers step-by-step instructions to more than 90 exercises ranging from hands-on projects, worksheets, and paper-and-pencil work to outdoor activities and games. For grades 4-6.

Language Arts and Environmental Awareness: 100+ Integrated Books and Activities for Children by Patricia L. Roberts (Shoe String Press, 1998. ISBN: 0208024271)

Annotated bibliography complete with integrated home and school activities. The chapters are organized according to language-arts areas, focusing on involving children in language, listening, folk literature, reading, and speaking. Divided by age level (5-8 and 9-14), each section lists several books that foster environmental awareness along with plot summaries and related activities. The names and addresses of environmental organizations and a list of periodicals that publish children's work are included.

Let's Talk Trash : Introduction to Solid Waste Management by Therese Lloyd (Lansing, MI: Great Lakes Collaborative, [199?]. Online at <http://explorer.scrtec.org/explorer/explorer-db/html/783750634-447DED81.html>)

[577. 071 L793I.]

Grades 4-6. The purpose of this lesson is to increase the awareness of the elementary age student as to the need for solid waste management of the environment and to give a sense of individual and community responsibility and control over the world.

Looking at the Earth's Environment through the "Eyes" of a Satellite (Canada Centre for Remote Sensing, 2002?. Online at http://www.ccrs.nrcan.gc.ca/ccrs/learn/tutorials/earthkit/earthkit_e.html)

Designed to stimulate student interest in research by teaching how satellite images are used to monitor the Earth's environment. Includes teacher's guide and student pages. For ages 10-14.

Municipal Solid Waste and the 3Rs Reduce, Reuse, Recycle : An Illinois Elementary School Teacher's Guide (Springfield, IL : Illinois Department of Commerce and Community Affairs, Bureau of Energy and Recycling, 2002. Available at no charge from the [Illinois Department of Commerce and Community Affairs Recycling Education Unit](#))

[363. 7282 M9665e]

Developed using the investigation skills methodology, which helps students develop the skills to investigate, evaluate, and resolve issues. It also correlates to Illinois Learning Standards.

Our Environment by Michelle Fawson (Lansing, MI: Great Lakes Collaborative, [199?]. Online at <http://explorer.scrtec.org/explorer/explorer-db/html/783750879-447DED81.html>)

[577. 071 F278o.]

For grades 2-4. Students receive an overview of the world's environmental dilemmas, learn about ten endangered species and understand the conditions which led to the endangerment, identify five concrete steps which they can take to improve their environment select a project which will improve their environment and complete it.

Paint, Paint Everywhere (Champaign, IL: [Illinois Hazardous Waste Research and Information Center], 1994. Available from the [WMRC Clearinghouse](#) at no charge (publication SCH-011).)

[667.6 P1481.]

An interdisciplinary study of paint for grades 4-6 which incorporates language arts, history, mathematics, art, science, and environmental lesson plans.

Planet Protectors Club : Mission Papers from Resource Control (Washington, DC: United States Environmental Protection Agency, [2000]. Online at <http://www.epa.gov/epaoswer/osw/kids/>) [EPA 530 E-00 002.]

Activities developed for grades K-6. Also links to **Adventures of the Garbage Gremlin**, an online comic book. Includes a [link to PDF](#) files for the comic book too.

Planet Protectors Create Less Waste in the First Place: A Story about Reuse on Earth (Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 1999. Available online at <http://www.epa.gov/epaoswer/osw/kids/pdfs/jellyjar.pdf>) [EPA 530 K-99 006.]

Part of U.S. EPA's Planet Protectors Club. Activity aimed at grades K-3.

The Quest for Less--Activities and Resources for Teaching K-6

<http://www.epa.gov/epaoswer/osw/kids/quest/index.htm>

Provides hands-on lessons and activities, enrichment ideas, journal writing assignments and other educational tools and skills relating to reusing, reducing and recycling waste.

TeachersCorner.org

<http://www.teacherscorner.org/>

Includes lesson plans that incorporate environmental themes with national education standards. For grades 5-12.

Toxics in my Home? You Bet! : Learning Activities on Household Toxics for Grades K-3 and 4-6 (Sacramento, CA: Golden Empire Health Planning Center, 1984. Available for purchase from the [Local Government Commission.](#)) [371.3 078 T755.]

One-week school curriculum on chemical hazards in the home for grades 7-8. Offers step-by-step teaching instructions and masters for student worksheets/handouts. Innovative and activity oriented. Discusses safe use, disposal, and safer substitutes for common household products containing toxic substances. Also has modules for grades 7-8 and 9-12.

Trash and Climate Change : Planet Protectors Discover the Hidden Reasons to Reduce, Reuse, and Recycle (Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 2000. Online at <http://www.epa.gov/epaoswer/osw/k00-001.pdf>) [EPA 530 K-00 001.]

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.

Understanding Garbage and our Environment by Andrea J. Nolan (New York, NY: McGraw-Hill, c1999. ISBN: 0070647607) [628.44 N787u.]

Includes activities and research on such subjects as recycling, waste-related illness, source reduction, and more. Includes eight lessons and 20 hands-on investigations in this book incorporating cross-curricular extensions, safety tips, and resources for further study. Every lesson includes references to the National Science Education Standards. Appropriate for grades 5-8.

What on Earth Can You Do with an Old Jelly Jar? (Washington, DC: U.S.

Environmental Protection Agency, Office of Solid Waste and Emergency Response, 1999. Online at <http://www.epa.gov/epaoswer/osw/kids/pdfs/jjposter.pdf>) [EPA 530 H-99 001.]

Poster aimed at children K-6. Includes ideas for reusing an old jelly jar. These activities could be incorporated into the classroom.

Windows on Waste (Columbus, OH: Ohio Dept. of Natural Resources, 1999. Ordering information at <http://www.ohiodnr.com/recycling/WOW/default.htm>) [363. 7282 W7656.]

Interdisciplinary activity guidebook for grades 3-6. Features 14 chapters with topics ranging from the composition of Ohio's municipal solid waste stream, composting and

alternatives to household hazardous wastes to papermaking, lifecycle analysis and litter prevention.

Worms Eat Our Garbage : Classroom Activities for a Better Environment by Mary Appelhof (Kalamazoo, MI: Flower Press, c1993. ISBN: 0942256050) [595. 146 A646.] This curriculum uses over 150 worm-related classroom or home activities to develop problem-solving and critical-thinking skills in children grades 4-8. Activities integrate science, mathematics, language arts, biology, solid waste issues, ecology, and the environment.

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Middle School

Acid Rain by Colin Hocking, Jacqueline Barber & Jan Coonrod (Berkeley, CA: University of California, Berkeley Lawrence Hall of Science, 1999. ISBN: 0924886145)

Consider the Earth: Environmental Activities for Grades 4-8 by Julie M. Gates (Teacher Ideas Press, 1999. ISBN: 1563087251)

Activities cover a wide range of environmental topics including water, soil, wildlife, plants, ecosystems, weather, environmental problems, and oceans. Each chapter begins with an explanation of the topic, followed by lesson plans for activities, supplementary and alternative activities, vocabulary definitions, and discussion questions that enhance student understanding of key concepts.

Eco-Inquiry : A Guide to Ecological Learning Experiences for the Upper Elementary/ Middle Grades by Kathleen Hogan (Dubuque, IA: Kendall/Hunt, 1994. ISBN: 0840395841) [577. 071 H714e.]

Offers 3 modules, each with a different ecological challenge for students. The modules can stand alone or can be used in sequence at one or several grade levels. Each module contains from 7 to 10 lessons and requires from 4 to 7 weeks for completion.

Environmental Activities for the Classroom: Product Life-Cycle Analysis

(Champaign, IL: Illinois Waste Management and Research Center, 1999. Online at http://www.wmrc.uiuc.edu/main_sections/info_services/library_docs/tn/99-031.pdf) [WMRC TN99- 031.]

Classroom activity for grades 7-12. Designed to help students become aware of the environmental impact of products beyond that of packaging or other wastes generated from use. Students work through the product life cycle of a sneaker.

Environmental Awareness Activities for Librarians and Teachers: 20 Interdisciplinary Units for Use in Grades 2-8 by Martha Seif Simpson (McFarland & Co., 1995. ISBN: 0786400641)

20 units divided into three broad categories (Our Planet's Resources, Our Planet's Natural Habitats, and Preserving Our Planet). Each unit gives specific activities in library skills, arts and crafts, spelling and vocabulary, geography, math, music and theater arts, English composition, science, history and sociology, and other topics for discussion. Suggested resources, additional reading lists and a list of addresses to write to for further information conclude each environmental unit.

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Provides students the opportunity to grapple with a complex, interdisciplinary scientific problem. They hear statements of various "suspects" in the crime. They study and discuss reference materials, including records, newspaper articles, charts, graphs, and even "secret documents," and integrate all of this information with their own test results. For grades 5-8.

Environmental Inquiry

<http://ei.cornell.edu/>

Supports teaching and learning about the environmental sciences through teacher education, curriculum research and development, and scientific inquiry by students in grades 7-16.

Environmental Science Activities Kit: Lessons, Labs and Worksheets for Secondary Students by Michael L. Roach & Ginny Allen (Jossey-Bass, 1993. ISBN: 0876283040)

Provides 32 detailed, interdisciplinary environmental science lessons with complete directions for use, including summary, introduction, materials needed, preparation and step-by-step teaching directions plus worksheets and background sheets. For grades 7-12.

Global Warming & the Greenhouse Effect by Colin Hocking, Cary I. Sneider, John Erickson & Richard Golden (Berkeley, CA: University of California, Berkeley Lawrence Hall of Science, 2001. ISBN: 092488665X)

Students explore this powerful environmental topic in a wide variety of formats, from hands-on science activities and experiments to a simulation game, analysis of articles, a story about an island threatened by rising sea levels, and a world conference on global warming. For grades 7-8.

The Great Lakes in my World : An Activities Workbook for Grades K-8 (Chicago, IL: Lake Michigan Federation, 1989. Available from the [Lake Michigan Federation](#) for \$25.00.) [372. 8977 G786.]

This 160-page manual provides information and activities that are designed to fit into regular curriculum units in the subject areas of science, social studies, math, and language arts. While some of the activities are linked, most are designed for independent use, or to be sequenced at the discretion of the teacher. Activities include role plays, board games, demonstrations, data analysis, and experiments, some of which require innovative problem solving.

Green Means 1,2, & 3 [Videorecording] (San Francisco, CA: KQED-San Francisco, no year given. Available for purchase from http://www.envmedia.com/catalog/products/green_means_1_2.html)

Series of short programs about environmental concern and consciousness. The stories profile ordinary people, businesses and communities who are doing extraordinary things for the earth's sake. For grades 6 and up.

Lake Erie Gin Rummy by Karl W. Grube (Lansing, MI: Great Lakes Collaborative, 1994. Online at <http://explorer.scrtec.org/explorer/explorer-db/html/823932024-81ED7D4C.html>) [577. 071 G885I.]

Presents a game for two players using a standard deck of cards and the Lake Erie Eco-Trivia cards. File includes the origin of the game, Dr. Grube's Gin Rummy dictionary, rules and directions for play and a list of environmental policy questions. Also includes a short bibliography and list of gaming trivia. Author encourages players to register their simulation games in order to receive annual update of new materials and educational game products. Requires the purchase of the gameboard set for \$15.00 postpaid to Games by Grube 765 Madouse Court Whitmore Lake, MI 48189-9589 USA. Grade levels 6-12.

Language Arts and Environmental Awareness: 100+ Integrated Books and Activities for Children by Patricia L. Roberts (Shoe String Press, 1998. ISBN: 0208024271)

Annotated bibliography complete with integrated home and school activities. The chapters are organized according to language-arts areas, focusing on involving children in language, listening, folk literature, reading, and speaking. Divided by age level (5-8 and 9-14), each section lists several books that foster environmental awareness along with plot summaries and related activities. The names and addresses of environmental organizations and a list of periodicals that publish children's work are included.

The Life Cycle of Everyday Stuff by Mike Reeske and Shirley Watt Ireton (NSTA Press, 2001 ISBN: 0873551877)

Using common products like the telephone, this book helps students learn about the flow of energy and matter through the environment. Includes seven illustrated sections which can be used as standalone units or as a cumulative program. For grades 8-12.

Looking at the Earth's Environment through the "Eyes" of a Satellite (Canada Centre for Remote Sensing, 2002?. Online at http://www.ccrs.nrcan.gc.ca/ccrs/learn/tutorials/earthkit/earthkit_e.html)

Designed to stimulate student interest in research by teaching how satellite images are used to monitor the Earth's environment. Includes teacher's guide and student pages. For ages 10-14.

Municipal Solid Waste and the 3Rs Reduce, Reuse, Recycle : An Illinois Middle School Teacher's Guide (Springfield, IL : Illinois Department of Commerce and Community Affairs, Bureau of Energy and Recycling, 2002. Available at no charge from the [Illinois Department of Commerce and Community Affairs Recycling Education Unit](#)) [363. 7282 M9665m]

Developed using the investigation skills methodology, which helps students develop the skills to investigate, evaluate, and resolve issues. It also correlates to Illinois Learning Standards.

Organics? A Wasted Resource! by Gerald R. Culen (Champaign, IL : Stipes Publishing, 2001. Student edition ISBN: 1588740463, Teacher edition ISBN: 1588740471)

This resource is an entire sequence of scientific information about composting and how to set up a composting operation at home as well as strategies for investigating and evaluating issues about organic waste management. For grades 6-12.

P2E2 Goes to School : A Pollution Prevention and Energy Efficiency Program for Middle School Students : Teacher's Manual (Harrisburg, PA: Pennsylvania Dept. of Environmental Protection, [199?]. Online at http://www.dep.state.pa.us/earthdaycentral/97/p2e2_intro.htm) [363.73 709748 P975.]

Designed to help middle school teachers integrate pollution prevention and energy efficiency concepts into their classrooms.

Pollution Prevention (P2) Toolbox: Tools for Helping Teachers Integrate P2 Concepts in the Classroom

<http://www.epa.gov/reg5rcra/wptdiv/p2pages/toolbox.htm>

Lesson plans (in PDF) introducing pollution prevention concepts. Titles include: Chicago Academic Standards and Frameworks; EPA Contacts; Energy Conservation; Household Hazardous Waste Reduction; What is Pollution Prevention?; Pesticides Reduction; P2 Resources; Pollution Prevention in Schools; and Water Pollution Prevention and Conservation.

Resources for Teaching Middle School Science (National Academy Press, 1998. ISBN: 0309057817. Environmental Science chapter online at <http://www.nap.edu/readingroom/books/rtmss/3toc.html>)

Guide to curriculum materials and other resources for teaching science in grades six through eight. Entire book is online at <http://www.nap.edu/readingroom/books/rtmss/>.

River Cutters by Cary I. Sneider and Katharine Barrett, with Kevin Beals, Lincoln Bergman, Jefferey S. Kaufmann, and Robert C. Knott (Berkeley, CA: University of California, Berkeley Lawrence Hall of Science, 2001. ISBN: 0924886323)

Creating river models using a dripper system and diatomaceous earth, students acquire geological terminology and begin to understand rivers as dynamic, ever-changing systems. They investigate the concepts of erosion, pollution, toxic waste, and human manipulation of rivers, and gain understanding of controlled experimentation.

Science Fair Fun: Designing Environmental Science Projects (Washington, DC : United States Environmental Protection Agency, Solid Waste and Emergency Response, 2000. Online at <http://www.epa.gov/epaoswer/osw/kids/pdfs/sciencefair.pdf>) [EPA 530 K-00 008]

Provides students in grades 6 to 8 with ideas and resources for developing environmental science fair projects, specifically in the areas of reducing, reusing, and recycling waste materials.

Strong Medicine : Chemistry at the Pharmacy (Middletown, OH: Terrific Science Press, c1999. ISBN: 1883822106) [615.19 00712 S9239.]

Looks at chemistry in the pharmaceutical industry. Students get hands-on experience making aspirin and learning sophisticated chemical techniques like gel filtration. For grades 7-12.

TeachersCorner.org

<http://www.teacherscorner.org/>

Includes lesson plans that incorporate environmental themes with national education standards. For grades 5-12.

Toxics in my Home? You Bet! : Learning Activities on Household Toxics for Grades 7-8 (Sacramento, CA: Golden Empire Health Planning Center, 1984. Available for purchase from the [Local Government Commission.](#)) [371.3 078 T755.]

One-week school curriculum on chemical hazards in the home for grades 7-8. Offers step-by-step teaching instructions and masters for student worksheets/handouts. Innovative and activity oriented. Discusses safe use, disposal, and safer substitutes for common household products containing toxic substances. Also has modules for K-3, 4-6, and 9-12.

Understanding Garbage and our Environment by Andrea J. Nolan (New York, NY: McGraw-Hill, c1999. ISBN: 0070647607) [628.44 N787u.]

Includes activities and research on such subjects as recycling, waste-related illness, source reduction, and more. Includes eight lessons and 20 hands-on investigations in this book incorporating cross-curricular extensions, safety tips, and resources for further study. Every lesson includes references to the National Science Education Standards. Appropriate for grades 5-8.

Water Quality for Freshwater Organisms by Robert Brosa (Lansing, MI: Great Lakes Collaborative, [199?]. Online at <http://unite.ukans.edu/explorer/explorer-db/rsrc/783751032-447DED81.2.PDF>) [577. 071 B874w.]

The purpose of this activity is to demonstrate to students the effect increased water temperature has on the amount of dissolved oxygen found in water and in turn upon the gill beat rate of fish. For grades 8-12.

Worms Eat Our Garbage : Classroom Activities for a Better Environment by Mary Appelhof (Kalamazoo, MI: Flower Press, c1993. ISBN: 0942256050) [595. 146 A646.]

This curriculum uses over 150 worm-related classroom or home activities to develop problem-solving and critical-thinking skills in children grades 4-8. Activities integrate science, mathematics, language arts, biology, solid waste issues, ecology, and the environment.

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High School

1001 Ideas for Science Projects on the Environment by Marion A. Brisk (Princeton, NJ : Peterson's, 1997. ISBN: 002861707X)

Ideas for high school science fair projects in environmental science.

Assessing Toxic Risk: Student Edition and Teacher's Guide by Nancy M. Trautmann

and the Environmental Inquiry Team (Arlington, VA : National Science Teacher's Association, 2001. ISBN: 0873551966 -- Available for purchase from **NSTA**)

This book is a collaborative effort among scientists, science educators, and high school and middle school teachers. Includes both a student guide and a teacher's guide. The student guide presents some basic concepts of toxicology, then presents some procedures, or protocols, that students can learn to do.

Classic Trash

<http://www.iit.edu/~smile/ch9202.html>

Classroom activity designed for 9th graders. Students will learn how to classify trash into categories; what options exist for dealing with trash; and how long trash will last in a landfill.

Chemical Manufacturing : The Process of Mixing by Dianne N. Epp (Middletown, OH: Terrific Science Press, c2000. ISBN: 1883822238) [660. 0712 E643c.]

Highlights the ways that mixing is used in different industrial applications. Offers background information on the importance of mixing and a detailed explanation of the machinery used in industry. It also contains inquiry-based activities that teachers can use to illustrate mixing in their classrooms.

Environmental Activities for the Classroom : Product Life-Cycle Analysis

(Champaign, IL: Illinois Waste Management and Research Center, 1999. Online at http://www.wmrc.uiuc.edu/main_sections/info_services/library_docs/tn/99-031.pdf) [WMRC TN99- 031.]

Classroom activity for grades 7-12. Designed to help students become aware of the environmental impact of products beyond that of packaging or other wastes generated from use. Students work through the product life cycle of a sneaker.

Environmental Inquiry

<http://ei.cornell.edu/>

Supports teaching and learning about the environmental sciences through teacher education, curriculum research and development, and scientific inquiry by students in grades 7-16.

Environmental Science Activities Kit: Lessons, Labs and Worksheets for Secondary Students by Michael L. Roach & Ginny Allen (Jossey-Bass, 1993. ISBN: 0876283040)

Provides 32 detailed, interdisciplinary environmental science lessons with complete directions for use, including summary, introduction, materials needed, preparation and step-by-step teaching directions plus worksheets and background sheets. For grades 7-12.

Green Means 1,2, & 3 [Videorecording] (San Francisco, CA: KQED-San Francisco, no year given. Available for purchase from http://www.envmedia.com/catalog/products/green_means_1_2.html)

Series of short programs about environmental concern and consciousness. The stories profile ordinary people, businesses and communities who are doing extraordinary things for the earth's sake. For grades 6 and up.

Lake Erie Gin Rummy by Karl W. Grube (Lansing, MI: Great Lakes Collaborative, 1994. Online at <http://explorer.scrtec.org/explorer/explorer-db/html/823932024-81ED7D4C.html>) [577. 071 G885l.]

Presents a game for two players using a standard deck of cards and the Lake Erie Eco-Trivia cards. File includes the origin of the game, Dr. Grube's Gin Rummy dictionary, rules and directions for play and a list of environmental policy questions. Also includes a short bibliography and list of gaming trivia. Author encourages players to register their simulation games in order to receive annual update of new materials and educational game products. Requires the purchase of the gameboard set for \$15.00 postpaid to Games by Grube 765 Madouse Court Whitmore Lake, MI 48189-9589 USA. Grade levels

6-12.

The Life Cycle of Everyday Stuff by Mike Reeske and Shirley Watt Ireton (NSTA Press, 2001 ISBN: 0873551877)

Using common products like the telephone, this book helps students learn about the flow of energy and matter through the environment. Includes seven illustrated sections which can be used as standalone units or as a cumulative program. For grades 8-12.

Mission Possible!: A Teacher's Guide for Grades 9 to 12 : Students Building Solutions for Their Community's Recycling Needs by Julia F. Walsh (Springfield, IL : Illinois Department of Commerce and Community Affairs, Bureau of Energy and Recycling, 1999. Available at no charge from the [Illinois Department of Commerce and Community Affairs Recycling Education Unit](#)) [363. 7282 W225m]

This guide presents lessons on solid waste management and related educational materials emphasizing the 3Rs -- Reduce, Reuse, and Recycle -- for grades 9-12. These units meet the "Applications of Learning" in the Illinois Learning Standards and align with some of the Illinois Academic Standards in Language Arts, Science, and Social Studies.

Organics? A Wasted Resource! by Gerald R. Culen (Champaign, IL : Stipes Publishing, 2001. Student edition ISBN: 1588740463, Teacher edition ISBN: 1588740471)

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Water Quality for Freshwater Organisms by Robert Brosa (Lansing, MI: Great Lakes Collaborative, [199?]. Online at <http://unite.ukans.edu/explorer/explorer-db/rsrc/783751032-447DED81.2.PDF>) [577. 071 B874w.]

The purpose of this activity is to demonstrate to students the effect increased water temperature has on the amount of dissolved oxygen found in water and in turn upon the gill beat rate of fish. For grades 8-12.

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All Grades

3Rs Guide to Fun Recycling Projects for Educators: Reduce, Reuse, Recycle (Springfield, IL : Illinois Department of Commerce and Community Affairs, Bureau of Energy and Recycling, 1999. Available at no charge from the [Illinois Department of Commerce and Community Affairs Recycling Education Unit](#)) [363. 7282 G94652]

Classroom activities and lesson plans on recycling, source reduction, life cycle analysis, environmental products, landfills, and solid waste management for grades K-12. Also includes a cross-reference index from the publication to the Illinois Learning Standards.

Air Quality Lesson Plans and Data

http://www.tnrcc.state.tx.us/air/monops/lessons/lesson_plans.html

From the Texas Natural Resources Conservation Commission. Includes lesson plans on air quality for grades K-12.

Alliance to Save Energy Lesson Plans

<http://www.ase.org/educators/download.htm>

Lesson plans for K-12 students on all aspects of energy efficiency.

Awesome Library > Classroom > Science > Ecology > Electric Cars

http://www.awesomelibrary.org/Classroom/Science/Ecology/Electric_Cars.html

Links to lesson plans, lists, news, and articles about electric cars. Be sure to investigate the other topics in the [Ecology](#) hierarchy.

Chain Gang : The Chemistry of Polymers (Middletown, OH: Terrific Science Press, c1999. ISBN: 1883822130) [547.7 0712 C434.]

Explores the versatility of plastics and other polymers that we use daily. For grades 4-12.

Cool Science

<http://www.netl.doe.gov/coolscience/index.html>

Developed by the Department of Energy's National Energy Technology Laboratory. Check out the [Teacher's Lounge](#), which includes links to lesson plans and other resources.

Dirt Alert : The Chemistry of Cleaning (Middletown, OH: Terrific Science Press, c1999. ISBN: 1883822114) [667.1 0712 D599.]

Examines the chemistry involved in home and industrial cleaning products used under various conditions. For grades 4-12.

Discover Your Ecological Address

<http://www.ee.enr.state.nc.us/ecoadr/ecoadr.htm>

Developed by the North Carolina Department of Environmental Protection's Office of Environmental Education. Introduces the concept of ecological address and includes activities that can be adapted for the classroom.

DiscoverySchool.com Lesson Plans Library

<http://school.discovery.com/lessonplans/>

Find hundreds of original lesson plans, all written by teachers for teachers.

Drinking Water For Kids > Classroom Activities and Experiments

<http://www.epa.gov/safewater/kids/exper.html>

Classroom materials from the U.S. EPA Office of Water.

Environmental Education Lesson Plans

http://www.askeric.org/cgi-bin/lessons.cgi/Science/Environmental_Education

Compiled by AskERIC.

Environmental Pathways: Youth Investigating Pollution Issues in Illinois

(Springfield, IL: Illinois Environmental Protection Agency, 2002?. Online at <http://www.epa.state.il.us/kids/teachers/education-packet.html>)

Designed to develop critical thinking skills, encourage students to think constructively about environmental issues and make informed, responsible decisions about natural resources.

Fat Chance : The Chemistry of Lipids (Middletown, OH: Terrific Science Press, c1999. ISBN: 1883822092) [547.77 0712 F252.]

Shows students that fats aren't just in food by providing hands-on activities for making lipid-based products such as soap and candles. For grades 4-12.

Garbage, Trash, and Refuse: Problems and Issues by Harold Hungerford, William Bluhm, and Austin Winther (Champaign, IL : Stipes Publishing, 1999. Student edition ISBN: 0875638791, Teacher edition ISBN: 0875638805)

This is an extended case study for the investigation and evaluation of community-based solid waste issues. It covers the subject from definition, trends, disposal, recycling, and packaging to issue analysis, investigation, and citizenship action. No grade levels given.

EELink Activity Finder

<http://eelink.net/activityfinder.html>

Provides a searchable list of natural resource-oriented classroom activities.

EELink Classroom Resources

<http://eelink.net/classroomresources-directories.html>

List of databases and directories of classroom resources.

Eisenhower National Clearinghouse for Mathematics and Science Education > Curriculum Resources

<http://www.enc.org/resources/>

Includes records for thousands of math and science materials for K-12 teachers. Search by keyword or browse by subject (environmental science is under Science>Earth Science).

Explorer

<http://explorer.scrtec.org/explorer/>

A collection of educational resources (instructional software, lab activities, lesson plans, student created materials ...) for K-12 mathematics and science education. Developed jointly by the Great Lakes Collaborative and the University of Kansas UNITE group.

GLOBE Program Teacher's Guide (Washington, DC : GLOBE Program, 1997. Online at [http://archive.globe.gov/sda-bin/wt/ghp/tg+L\(en\)+UP\(globetg\)](http://archive.globe.gov/sda-bin/wt/ghp/tg+L(en)+UP(globetg))) [372. 357 G562.]

Teacher's guide for the GLOBE program, a worldwide hands-on science education program that encourages teachers to collaborate with their peers and with scientists.

Great Minds, Great Lakes

http://www.epa.gov/glnpo/monitoring/great_minds_great_lakes/

Activities and information about the Great Lakes Monitoring Program.

Let's Reduce and Recycle : Curriculum for Solid Waste Awareness: Lesson Plans for Grades K-6 and 7-12 (Washington, DC : U.S. Environmental Protection Agency, 1990.) [EPA 530-SW 90-005.]

Collection of activities divided into two sections: one contains 28 activities appropriate for grades K to 6, and another contains 36 activities for grades 7 to 12. Each section consists of five units that address key concepts related to solid waste generation and management. Concepts include what is waste, how do we manage waste, how does waste affect our resources, how can we produce less waste, and what can we do about the waste we produce.

Making Discoveries: Groundwater Activities for Classroom and Community

(Groundwater Foundation, no year given. Available for purchase from the [Groundwater Foundation](#))

Helps students broaden their scope and depth of knowledge about groundwater, surface water, wetlands and pollution through hands-on experiments and activities.

NSTA Recommends

<http://www.nsta.org/recommends/>

Searchable database of materials recommended by the National Science Teachers' Association.

Project AIRE Air Information Resources for Education (K-12) : A Guide for Instructors (Washington, DC: United States Environmental Protection Agency, 1997.

Available online at <http://www.epa.gov/region01/students/teacher/aire.html>) [372. 357 U58p.]

Complete curriculum dealing with various aspects of air pollution.

Project Learning Tree

<http://www.plt.org/>

Environmental education program for teachers and other educators, parents, and community leaders working with youth from preschool through grade 12. Sponsors environmental education training across the country through a network of **state coordinators**. They also have many educational materials, which are available through the state coordinators.

Recycling Lesson Plans (Pennsylvania Department of Environmental Protection)

http://www.dep.state.pa.us/dep/deputate/ enved/Rec_Lessons/contents.htm

Lesson plans that illustrate a variety of recycling concepts for grades Kindergarten through 12. Each lesson plan is marked for its intended grade level.

Science Fare : The Chemistry at the Table (Middletown, OH: Terrific Science Press, c1999. ISBN: 1883822122) [641.3 S416.]

Examines the chemistry behind the food we eat with activities that determine the fat content of foods, fool your senses of taste and smell, and many more. For grades 4-12.

EnergyStar Northeast Teacher Resources

<http://www.betterwaytosave.com/education.asp?tab=2>

Incorporates information about energy efficiency into math, language arts, and science curricula. Includes downloadable lesson plans.

U.S. EPA Clean Air Markets > Acid Rain > Experiments

<http://www.epa.gov/airmarkets/acidrain/experiments/index.html>

Experiments designed to show students how to measure acid rain and its effects on the environment. Although there is no grade level indicated, these experiments are most suitable for middle and high school students.

U.S. EPA Clean Air Markets > Acid Rain > Learning Activities

<http://www.epa.gov/airmarkets/acidrain/activities.html>

Activities designed for individuals and groups. Although there is no grade level indicated, these are most suitable for middle and high school students.

U.S. EPA Curriculum Resources & Activities

http://www.epa.gov/teachers/curriculum_resources.htm

Provides curricula and activities related to Air, Conservation, Ecosystems, Human Health, Waste & Recycling, and Water. Links include both EPA and non-EPA resources.

U.S. EPA Oil Program Learning Center

<http://www.epa.gov/oilspill/eduhome.htm>

Describes the characteristics of oil spills, various clean up techniques, and the effects of spills on the environment. Includes experiments for **elementary**, **middle**, and **high school** students.

U.S. EPA Region 5 Pollution Prevention Toolbox

<http://www.epa.gov/RCRIS-Region-5/wptdiv/p2pages/toolbox.htm>

Includes a series of four page lesson plans on various pollution prevention concepts for schools. Each fact sheet is designed to provide information on how students and teachers

can prevent pollution. Fact sheets also have lesson plans and hands-on activities.

U.S. EPA Superfund Program Classroom Activities

http://www.epa.gov/superfund/students/clas_act/

Classroom activities relating to the U.S. EPA Superfund Program. See in particular [HazEd: Classroom Activities for Understanding Hazardous Waste](#).

U.S. EPA Wetlands Education Activities

<http://www.epa.gov/owow/wetlands/education/>

Wetlands information and activities from U.S. EPA's Office of Water.

Water Education Foundation -- School Programs

<http://www.water-ed.org/schoolprograms.asp>

The Water Education Foundation is a non-profit organization working to create a better understanding of water issues and help resolve water resource problems through educational programs.

WOW! The Wonders of Wetlands: An Educator's Guide by Britt E. Slattery and Alan S. Kesselheim (St. Michaels, MD: Environmental Concern, Inc., 1995. Available for purchase from [Environmental Concern](#))

Includes more than 50 learning-activities for both indoor and outdoor use. These activities focus on the three definitive wetland parameters: water, soil, and plants; there are animal-oriented exercises as well.

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Webquests

Acid Rain Webquest

<http://olp.swlauriersb.qc.ca/webquest/rainwq.htm>

No indication of grade level, but it appears to be focused on upper elementary students. Developed by a school in Canada, so the web resources are generally Canadian.

Alternative Fuels

<http://www.glencoe.com/sec/science/webquest/content/altfuels.shtml>

For secondary school students. Students study different alternatives to petroleum products.

Conflict and Cooperation: Man vs Environment

<http://www.u46.k12.il.us/bhs/beckmannclaudia/298.htm>

Developed for high school students. Deals with causes and effects of pollution in Lake Michigan.

EarthALERT!

<http://www.bsd.k12.ca.us/franklin/pkelly/EA!.html>

EarthALERT! is a collaborative internet project. After searching designated links to various sites on the web, participants create web pages which discussing current environmental issues. Created in 1998, so technology aspects are quite dated. No indication of grade level.

Energy Quest

<http://www.geocities.com/brookwebquest1/>

For grades 6 and up. Students explore renewable energy sources.

Environmental and Human Health Webquest

<http://www.kamsc.org/quest/confarm/>

No grade level given. Students research from the point of view of a state public health official, representatives from pesticide and herbicide manufacturers, a small-scale organic

farmer, and a salaried farmer for a large agribusiness co-op.

Environment: How Can You Help?

<http://www.gumbo.appstate.edu/coop01/webquests/Environment/environment.html#Introduction>

Cross curriculum webquest for 7th grade. Focuses on things individuals can do to improve the environment.

Global Warming: What Can We Do to Improve Our Environment?

<http://www.lmu.edu/education/courses/Ed528/sum00/mario.htm>

No grade level given. Students explore the causes and effects of global warming.

Hybrid Vehicles

<http://www.glencoe.com/sec/science/webquest/content/hybrid.shtml>

For secondary school students. Students research hybrid electric vehicles.

Internet Expeditions: Creating WebQuest Learning Environments

<http://eduscapes.com/sessions/travel/>

Hands-on workshop that lets teachers learn four ways to build a WebQuest learning environment including using existing resources, adapt or modify a webquest, create a new webquest, or co-produce materials. In addition, participants examine instructional and classroom strategies for successfully integrating these activities in the K-12 classroom.

Kid Power: A Webquest for a Sustainable Future

<http://www.cobb.k12.ga.us/~keheley/kidpower/kidpower.htm>

For elementary students. Students research from the perspectives of a manufacturer, a homeowner, a rural school teacher, and a kid consumer.

Landfill Controversy: An Internet Webquest on Landfills

<http://www.snc.edu/educ/mse/courses/summerIT/students/Benesh-Zoeller/>

No grade level indicated. Students explore the topic of landfill sharing from the perspective of a citizen, the village president, the village solid waste manager, and representative from border states.

Learning with Webquests

<http://oncampus.richmond.edu/academics/a&s/education/projects/webquests.html>

Includes links to webquests developed by students preparing to become teachers. Developed for K-12 students in different subject areas. Includes several with environmental themes.

Matrix of Webquest Examples

<http://webquest.sdsu.edu/matrix/9-12-Sci.htm>

Table of webquests accessible by subject area and grade level.

Recycling Plastics

<http://www.glencoe.com/sec/science/webquest/content/recycle.shtml>

For secondary school students. Students research different types of plastics and how they are recycled.

WebQuest Generator

<http://www.bsu.edu/CTT/webquest.html>

An application intended to enable all educators, including those who lack the time or inclination to use HTML editing software, to generate WebQuest electronic lessons.

Webquests for 3rd Grade

<http://www.myschoolonline.com/folder/0,1872,25778-125947-28-19144,00.html>

Includes several with environmental themes.

What Effect Does Air Pollution Have on Asthma?

<http://www.glencoe.com/sec/science/webquest/content/asthma.shtml>

For secondary school students. Students research the effect of air pollution on asthma.

Women and the Environment: Paper Mill Public Health Web Quest

<http://www.womeninkentucky.com/wq1.html>

No grade level given. Focus is as much on women's multiple roles as it is on environmental issues. Geographic focus on Kentucky.

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Science Fair Projects

1001 Ideas for Science Projects on the Environment by Marion A. Brisk (Peterson's, 1997. ISBN: 002861707X)

For middle school through college science students.

Environmental Science: Forty-Nine Science Fair Projects by Robert J. Bonnet (New York, NY : McGraw-Hill, 1990. ISBN: 0830633693)

Hands-On Projects about Saving the Earth's Resources by Krista West (PowerKids Press, 2002. ISBN: 0823958477)

Science Fair Project in Energy by Robert L. Bonnet (Sterling Publishing, 1997. ISBN: 0806997931)

For grades 4-6. Sources of energy like sunlight, batteries, microwave ovens, and lightbulbs are used in this collection of 55 activities about energy and its various forms.

Science Projects about the Environment and Ecology by Robert Gardner (Enslow Publishers, 1999. ISBN: 0894909517)

For grades 6-12. Presents experiments and projects suitable for science fairs dealing with atmosphere, soil, water, plants, animals, and climate.

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Reference & News Sources

The sources in this section reference information that can be used in conjunction with the classroom activities listed in the previous section. In addition, they provide valuable background information on various environmental topics and issues.

News

CNN Science & Nature News

<http://www.cnn.com/TECH/science/archive/>

Science and nature stories aired on CNN. Includes environmental news.

Envirolink News Headlines

<http://www.envirolink.org/categories.html?do=shownews>

Daily environmental news headlines from the major media outlets.

Environmental News Network

<http://www.enn.com/>

Environmental news from around the world.

Your Planet Earth: Science, Sustainability, and Environmental News

<http://yourplanetearth.org/>

Interactive environmental website designed to promote the concept of sustainability by harnessing the power of the internet as a communications medium.

Reference

50 Simple Things Kids Can Do To Save the Earth by The Earth Works Group (Berkeley, CA: Earthworks Press, 1999. ISBN: 0833544721) [363.7 282 Fi466. 1990 edition]

Clear, practical tips show kids how they can conserve energy, recycle waste, and take on important environmental projects.

50 Simple Things You Can Do To Save the Earth by The Earth Works Group (Berkeley, CA: Bathroom Reader Press, 1995. ISBN: 1879682605) [363.7 282 F466. 1989 edition]

This classic guide to environmental awareness encompasses the latest research into such issues as global warming, ozone depletion, and endangered species and offers advice on how readers can help the environment.

Air Quality Index for Kids Teacher's Material

<http://www.epa.gov/airnow/aqikids/teachers.html>

Teacher's guide for the Air Quality Index for Kids website. Includes links to publications, posters, and other helpful sites. The Air Quality for Kids site is aimed at 7-10 year olds.

Cartoon Guide to the Environment by Larry Gonick and Alice Outwater (New York, NY: HarperCollins, 1996. ISBN:

The Consumer's Guide to Effective Environmental Choices: Practical Advice from the Union of Concerned Scientists by Michael Brower, PhD, and Warren Leon, PhD (New York, NY : Three Rivers Press, 1999. ISBN 060980281X) [363.70 0973 B877c] Provide clear information about American consumption patterns that cause the most damage to the environment and what should be done about them.

Dr. E's Energy Lab

<http://www.eren.doe.gov/kids/>

Kids site developed by the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy. Includes information about renewable energy, wind energy, solar energy, and alternative fuels.

Encyclopedia of Garbage by Steve Coffel (New York, NY: Facts on File, 1996. ISBN: 0816031355)

Considers garbage in its social context, examining where it comes from; where it goes; what it does to the environment; and the cultural, political, economic, and public health issues arising from it. Entries range from household garbage and industrial waste to chemical effluents and airborne chemical emissions.

Envirofacts Data Warehouse

http://www.epa.gov/enviro/index_java.html

U.S. EPA's one-stop site for environmental statistics of all kinds.

Environmental Encyclopedia (Gale Research, 2002. ISBN: 0787654868)

Consisting of nearly 1,300 signed articles and term definitions, this publication provides in-depth, worldwide coverage of environmental issues. Each article is written in a non-technical style and provides current status, analysis and suggests solutions whenever possible.

Exploring the Great Lakes (Chicago, IL; Lafayette, IN: U.S. Environmental Protection Agency Great Lakes National Program Office; U.S.

Environmental Protection Agency, Region V ; Purdue University, Agricultural & Biological Engineering Dept. 1999. Ordering information online at <http://www.epa.gov/seahome/gladvent.html> [551.48 2077 E96 CD-ROM.]

CD-ROM lets students take a virtual tour of the Great Lakes and explore some of the environmental issues facing Great Lakes communities today. A **Teacher's Guide CD** is also available.

The Garbage Primer: A Handbook for Citizens by the League of Women Voters Staff (Globe Pequot Press, 1993. ISBN: 1558212507)

Although somewhat dated, still a good reference for the basics on garbage.

Garbage into Gold [Videorecording] produced by Beth Pike and Stephen Hudnell (25 minutes, 1995. Available for a charge from **The Video Project**)

Profiles a new breed of environmental innovators, from students to scientists, who are taking recycling to a new level, creating new businesses and job opportunities that are both helping the environment and making money. For ages 12-adult.

Junior Environment on File (New York, NY: Facts on File, 1997. ISBN: 0816032076)

Kids for Saving Earth

<http://www.kidsforsavingearth.org/>

Aimed at kids but with good background information and resources for teachers to use in the classroom. See in particular "**So What's a Toxic Waste Site?**" For a complete list of activities and information pages, scroll to the bottom of the site's main page.

Lesson Plan Central > Science > Environment

<http://lessonplancentral.com/lessons/Science/Environment/index.htm>

Links to environmental education lesson plans from many different sources.

Overview of Environmental Problems by Erica Phipps (Ann Arbor, MI: National Pollution Prevention Center for Higher Education (now the Center for Sustainable Systems), University of Michigan, 1996. Online at) [363.7 P573o.]

This introductory document presents a comprehensive background of environmental issues, intended to help individuals understand the impact that human actions have on the environment. Although developed for college students, some of the material may be adaptable for high school students.

Pollution Prevention Concepts and Principles (Ann Arbor, MI: National Pollution Prevention Center for Higher Education (now the Center for Sustainable Systems), 1995. Online at <http://www.umich.edu/~nppcpub/resources/GENp2.pdf>) [363. 737 P573p.]

Introduces the concepts, terminology, objectives, and scope of pollution prevention. It discusses how government and the private sector are currently perceiving and implementing pollution prevention and describes the barriers and benefits encountered. Although developed for college students, some of the material may be adaptable for high school students.

Population Action International > Population Issues > Environment

<http://www.populationaction.org/issues/environment/index.htm>

Independent policy advocacy group working to strengthen public awareness and political and financial support worldwide for population programs grounded in individual rights. Good resource for information on the connection between population growth and the environment.

Population Connection

<http://www.populationconnection.org/>

National nonprofit organization working to slow population growth and achieve a sustainable balance between the Earth's people and its resources. Another good source for information and resources on population and environment. Includes **resources for teachers**.

A Primer for Environmental Literacy by Frank B. Golley (New Haven, CT : Yale University Press, 1998. ISBN: 0300070497 (pb), 0300073151 (hb))

Presents the key concepts of environmental science in an accessible style that can be understood by those who are not natural scientists. It offers a way to improve the capacity of non-scientists to understand the connections between humans and their environment.

Natural Resources Defense Council

<http://www.nrdc.org/>

Good general information on a variety of environmental topics, including recycling, toxic chemicals, and air and water pollution. Check out their **Green Squad** site, designed to help kids identify, avoid, and fix environmental problems in their schools.

The Plastic Waste Primer: A Handbook for Citizens by the League of Women Voters Staff (Globe Pequot Press, 1993. ISBN: 1558212299)

Although somewhat dated, still a good reference for the basics on plastic wastes.

Scorecard

<http://www.scorecard.org/>

Environmental maps and statistics searchable by zip code. A good source for finding information about local environmental conditions.

The State of the Nation's Ecosystems: Measuring the Lands, Waters, and Living Resources of the United States by the H. John Heinz III Center for Science, Economics, and the Environment (Washington, DC : H. John Heinz III Center for Science, Economics, and the Environment, 2002)

Uses core environmental indicators to evaluate the state of ecosystems in the U.S. Good source for overview information on the current U.S. environment by type of ecosystem.

State of the World by Worldwatch Institute staff (Worldwatch Institute, annual.

Distributed by W.W. Norton and available through most libraries and bookstores)

Includes many, many statistics on the health of the world's environment. The 2002 edition focuses on issues central to the United Nations World Summit on Sustainable Development in Johannesburg, South Africa in August/September 2002.

Tox Town: An Interactive Guide to Commonly Encountered Toxic Substances

<http://toxtown.nlm.nih.gov/>

Interactive guide to commonly encountered toxic substances. Best viewed using Macromedia's Flash player, although there is also a **text only** version. Developed by the National Library of Medicine.

U.S. EPA Clean Air Markets > Acid Rain

<http://www.epa.gov/airmarkets/acidrain/>

Basic information explaining where acid rain comes from, how its measured, and how to reduce it. Also includes links to science experiments and learning activities.

U.S. EPA Environmental Explorers Club

<http://www.epa.gov/kids/>

U.S. EPA site geared toward kids. Good age-appropriate information that can be integrated into the classroom.

U.S. EPA Radiation Protection Program Students and Teachers Page

<http://www.epa.gov/radiation/students/>

Explains the basic concepts of radiation and radiation protection.

U.S. EPA Student Center

<http://www.epa.gov/students/>

Includes links to Environmental Basics, Air, Conservation, Ecosystems, Water, Human Health, In Your Neighborhood, and Waste & Recycling.

U.S. EPA's Superfund Kids Page

<http://www.epa.gov/superfund/kids/index.htm>

Intended to introduce children ages three and up to the basic concepts of the Superfund program. See the [Read Me First](#) page for age levels for each activity.

U.S. EPA's Superfund for Students and Teachers Page

<http://www.epa.gov/superfund/students/index.htm>

Contains information for junior high, high school, and college students, and teachers of all grade levels. It is designed to educate students and teachers about Superfund and hazardous waste.

U.S. EPA > Wastes > Educational Resources > Students and Teachers

<http://www.epa.gov/epaoswer/osw/students.htm>

Links to U.S. EPA waste resources for students and teachers.

Vital Signs: The Trends That Are Shaping Our World by Worldwatch Institute staff (Worldwatch Institute, annual. Distributed by W.W. Norton and available through most libraries and bookstores)

Provides a snapshot of more than 50 social, economic and environmental trends and covers an array of issues—from the growth of fish farms and bicycle production to the increase of solar cell and Internet use.

What's Up in the Environment?

<http://www.thirteen.org/edonline/wue/>

Environmental education site targeted at middle and high school students. Includes a [teacher's guide](#) and links to other [teacher resources](#). Partially funded by the National Environmental Education and Training Foundation.

World Wildlife Fund

<http://worldwildlife.org/>

Dedicated to protecting the world's wildlife and wildlands. Has an extensive [education](#) section.

Year of Clean Water (2002)

<http://www.yearofcleanwater.org/>

Designed to celebrate the 30th anniversary of the Clean Water Act. Good historical information on the legislation.

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Metasites, Directories, Publication Lists & Bibliographies

Awesome Library > Classroom > Science > Ecology

<http://www.awesomelibrary.org/Classroom/Science/Ecology/Ecology.html>

Includes links to subject guides for pollution, recycling, toxic wastes, and other environmental issues. Nicely cross referenced.

Background Resources on Environmental Literature for Teachers and Scholars

<http://www.ferrum.edu/thanlon/ecology/resource.htm>

Bibliography compiled by Dr. Tina L. Hanlon of Ferrum College. Contains references to materials connecting literature and the environment for children.

Directory of Great Lakes Education Material

<http://www.greatlakesed.org/directory.html>

Comprehensive listing of educational materials relating to the Great Lakes-St. Lawrence Basin. Last updated in 1994, although there is a link to submit new material. Good resource for older environmental education material.

DiscoverySchool.com Lesson Plans Library

<http://school.discovery.com/lessonplans/>

Find hundreds of original lesson plans, all written by teachers for teachers.

EELink: Environmental Education on the Internet

<http://eelink.net/>

A project of the [North American Association for Environmental Education](#), this site includes links to classroom and professional resources as well as environmental reference sites and grant and job listings. Very comprehensive.

Energy Education and Training

<http://www.eren.doe.gov/education/>

Features links to educational and training resources on energy, particularly energy efficiency and renewable energy.

Energy Education Resources: Kindergarten through 12th Grade

<http://www.eia.doe.gov/bookshelf/eer/kiddietoc.html>

Published by the National Energy Information Center (NEIC), to provide students, educators, and other information users a list of generally available free or low-cost energy-related educational materials. Link to specific sections of the guide by using the navigation menu down the left side of the page.

The Environmental Education Collection : A Review of Resources for Educators

(Troy, OH: North American Association for Environmental Education, c1997-. [Volume 1](#), [Volume 2](#), [Volume 3](#)) [372. 357 E61.]

Series of educators' resource guides to quality environmental education materials published by the North American Association for Environmental Education.

Environmental Education and Educational Achievement: Promising Programs and Resources

(Washington, DC : National Environmental Education and Training Foundation, 2002. Online at <http://www.neetf.org/Education/prom-programs.pdf>)

Environmental Education Publications Produced with Support from U.S. EPA

<http://www.epa.gov/enviroed/eepubsEPA.htm>

Links to environmental education publications funded in part by the U.S. Environmental Protection Agency.

Environmental Education: Resources at a Glance

(Washington, DC : National Environmental Education and Training Foundation, 2002. Online at <http://www.neetf.org/Education/ata-glance.pdf>)

Environmental Science Resources

<http://www.educationindex.com/environ/>

From [Educationindex.com](http://www.educationindex.com).

ERIC Clearinghouse for Mathematics, Science, and Environmental Education

<http://www.ericse.org/eeindex.html>

Part of the the Educational Resources Information Center (ERIC), a national information system designed to provide users with ready access to an extensive body of education-related literature. Includes links to digests, journals, lessons, links, and other information.

Federal Resources for Education Excellence (FREE) Science Resources

<http://www.ed.gov/free/s-scienc.html>

Use this site to search for links to online educational resources across multiple participating websites or browse by broad subject area. Most relevant environmental education materials are in the Science section.

The GLOBE Program

<http://globe.fsl.noaa.gov/>

Hands-on, primary and secondary school-based education and science program that brings together teachers, students, and scientists from around the world.

Greening Schools

<http://www.greeningschools.org>

Greening Schools, a cooperative effort of the Illinois Waste Management and Research Center and the Illinois EPA, offers free technical assistance, workshops for teachers, administrators, and facility managers, and online resources relating to pollution prevention for all Illinois schools. Offers an extensive database of environmental education curriculum resources and resources for operating greener school buildings.

Illinois Environmental Protection Agency Educator's Tools

<http://www.epa.state.il.us/kids/teachers/>

Compilation of environmental education materials available from the Illinois Environmental Protection Agency.

Lesson Plan Central > Science > Environment

<http://lessonplancentral.com/lessons/Science/Environment/index.htm>

Links to environmental education lesson plans from many different sources.

Picture Books and the Environment: Bibliography and Study Guide

<http://www.ferrum.edu/thanlon/ecology/ecopicbks.htm>

Compiled by Dr. Tina L. Hanlon of Ferrum College. Annotated bibliography of fiction and nonfiction picture books with environmental themes. Very helpful for teachers of young children who want to integrate environmental materials into their classrooms.

Project Tomorrow Environmental Education Bibliography

<http://www.ee.enr.state.nc.us/Bibliography/2000biblioTOC.htm>

Intended to help educators easily identify and locate quality resources and materials for creating model environmental education library collections. Focus on North Carolina resources, but still worthwhile for educators in other states.

SEEK: Minnesota's Interactive Directory of Environmental Education Resources

<http://www.seek.state.mn.us/>

SEEK stands for Sharing Environmental Education Knowledge. The site is a partnership of environmental educators in Minnesota and is coordinated by the Minnesota Office of Environmental Assistance. It serves as a clearinghouse for environmental education information and includes a resource directory (not limited to resources in Minnesota), lists of resources specific to regions of Minnesota, information on EE efforts in formal education, and other resources.

Sustainable Development: A Bibliography

<http://www.edu.gov.mb.ca/ks4/iru/publications/bibliographies/sustain1.html>

Bibliography of sustainable development resources compiled by Manitoba (Canada) Education and Youth. Covers all grade levels. Dated September 1999.

TEACH Great Lakes

<http://www.great-lakes.net/teach/>

Features mini-lessons on many Great Lakes topics: **environment, history & culture, geography, pollution** and **careers & business**. Geared for elementary through high school students, the modules are continually expanded and updated and include links to a glossary to help explain scientific terms and acronyms.

U.S. EPA Environmental Education Center

<http://www.epa.gov/teachers/>

Gateway to U.S. EPA environmental education resources.

U.S. EPA Environmental Education Internet Sites

<http://www.epa.gov/enviroed/otherepa.html>

Links to sites developed or supported by U.S. EPA

U.S. EPA Office of Environmental Education Contacts

<http://www.epa.gov/enviroed/contacts1.html>

Contacts within U.S. EPA's Office of Environmental Education

U.S. EPA Online Environmental Education Resources

<http://www.epa.gov/enviroed/selecteparesources.html>

Arranged by environmental topic.

U.S. EPA Region 3 Environmental Science Library Environmental Education Collection

<http://www.epa.gov/region3/esc/library/enviroed.htm>

Features [curriculum guides for teachers](#), students' activities books, and [children's storybooks](#) about the environment. The collection also includes copies of [free EPA pamphlets, posters, and comic books](#) covering a wide variety of environmental topics.

U.S. EPA Region 5 Environmental Education Resources

<http://www.epa.gov/region5/enved/resources.html>

This site includes the EE Region 5 library, an electronic catalog of EPA environmental education resources, information on the [environmental video loan program](#), an [online form for ordering free environmental education publications](#), and a link to EPA environmental software packages available for free download.

U.S. Global Change Research Information Office Environmental Education and Outreach

<http://www.gcrio.org/edu/educ.shtml>

Links to many good global climate change resources.

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Associations, Organizations & Professional Development

To locate other environmental education organizations, check the *Encyclopedia of Associations*, available through most libraries.

Center for Great Lakes Environmental Education

<http://www.greatlakesed.org/>

Leads awareness of and access to information about Great Lakes environmental subjects by promoting learning links for teachers, students and other stakeholders in the international Great Lakes-St. Lawrence basin ecosystem.

Environmental Association for Great Lakes Education (EAGLE)

<http://www.eagle-ecosource.org/>

EAGLE's mission is to provide education and promote activism to develop community awareness and involvement aimed at protecting and restoring the Great Lakes ecosystem. Good source for Great Lakes news but not a lot of classroom specific information.

Environmental Education Association of Illinois

<http://www.eeai.net/>

Illinois affiliate of the North American Association for Environmental Education.

Green Group

<http://www.green-group.com/index.cfm>

Canadian charitable organization established in 1991 to provide environmental programming to school-aged children, their teachers and families. Sponsors **ECO-PALS**, an environmentally-themed pen pal program for elementary and middle-school students in all provinces of Canada and states in the Great Lakes Basin in the U.S.

National Environmental Education & Training Foundation

<http://www.neetf.org/>

Non-profit, private organization that develops and supports environmental learning programs to meet social goals, such as improved health, better education, and "greener," more profitable business. In particular, they address the needs of disadvantaged communities requiring cleaner local environments.

North American Association for Environmental Education

<http://naaee.org/>

A network of professionals, students, and volunteers working in the field of environmental education throughout North America and in over 55 countries around the world. Membership includes a subscription to "Environmental Communicator."

Project Learning Tree

<http://www.plt.org/>

PLT uses the forest as a "window" on the world to increase students' understanding of our environment; stimulate students' critical and creative thinking; develop students' ability to make informed decisions on environmental issues; and instill in students the commitment to take responsible action on behalf of the environment.

Project WET: Water Education for Teachers

<http://www.projectwet.org/>

An international, interdisciplinary, water education program for formal and nonformal educators of students 5 to 18. Includes links to educational materials, an events calendar, education standards, and other information.

Project Wild

<http://www.projectwild.org/>

Interdisciplinary, supplementary environmental and conservation education program for K-12 educators.

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Periodicals

Emagazine.com

<http://www.emagazine.com/>

Web-based version of E/The Environmental Magazine, a newsstand publication focusing on the environment.

Green Teacher: Education for Planet Earth

<http://www.greenteacher.com/>

Quarterly publication aimed at teachers of all grade levels. Includes practical ideas and activities to use in the classroom, overview articles about current environmental issues, and resource lists and reviews.

Journal of Environmental Education

http://www.heldref.org/html/body_je.html (subscription information)

Based on recent research in the sciences, social sciences, and humanities, the journal details how best to present environmental issues and how to evaluate programs already in place for primary through university level and adult students.

Natural Inquirer

<http://www.naturalinquirer.usda.gov/>

Magazine published by the USDA Forest Service highlighting the agency's research efforts. Aimed at middle school students.

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E-mail Lists & Discussion Groups

E-mail Lists

E-mail discussion lists (sometimes called listservs) allow users to contribute to named mailing lists that distribute messages to all subscribed members. Below are mailing lists that deal with environmental education.

[glin-education](#)

A forum for sharing news relating to Great Lakes education and resources available for both teachers and students. Contact: Lauren Makeyenko, Center for Great Lakes Environmental Education, laurenm@greatlakesed.org.

Discussion Groups

Google Groups (<http://groups.google.com/>) is a web-based source for Usenet newsgroups. It contains the entire archive of Usenet discussion groups dating back to 1995. Newsgroups bring people with common interests together online to hold ongoing discussions, recommend favorite web sites, collaborate on projects, and conduct research.

Within each group, Google lists the date, the subject line of each thread, and the name of the most recent poster. To read messages in a particular thread, click on the link for that thread. To post a new message, click on the "Post a New Message to [Group Name]" link in the upper right corner of the page. Although there aren't any Google groups specifically dedicated to environmental education, there are environmental education postings in the following groups:

- sci.environment
- talk.environment
- misc.education.
- science
- school.subjects.
- science

See also the **Earth Day/Eco-Projects Chatboard**, a web-based discussion on the **Teachers.net** website devoted to discussion of Earth Day and environmental education projects in the classroom.

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Locating More Information

This guide is not a complete list of environmental education resources. Your local library has many more resources. To aid your search, start with the following:

Library of Congress Subject Headings

- Environmental education
- Recycling (Waste, etc.)
- Source reduction (Waste management)

Refuse and refuse disposal (used for
Garbage)
Pollution prevention
Water -- Pollution
Air -- Pollution
Groundwater -- Pollution
Ecology

To locate teaching resources for specific grade levels, look for the following subdivisions:

Study and teaching (Early
childhood)
Study and teaching (Elementary)
Study and teaching (Middle
schools)
Study and teaching (Secondary)
Laboratory experiments
Curricula

To locate general environmental information and more reference sources:

Recycling (Waste, etc.)
Environmental protection -- Citizen
participation
Green products
Green purchasing
Refuse and refuse disposal
Sustainable development
Pollution prevention
Source reduction (Waste management)

Dewey Decimal Numbers

Most public and school libraries use the Dewey Decimal Classification System to arrange their collections. Some helpful sections to browse at your local library include:

Environmental protection, generally: 363.7
Waste control and disposal, generally: 363.728
Garbage disposal: 363.7288
Recycling: 363.7282
Environmental studies (Elementary education):
372.357
Environment (Economics): 333.7
Ecology: 577

