



RESOURCES for EDUCATORS

Comprehensive Sustainability Education Guides & Information

"Advancing Education Through Environmental Literacy", Archie, Michele L., Association for Supervision and Curriculum Development (2003)

"Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning." Lieberman, Gerald A.; Hoody, Linda L. State Education and Environment Roundtable (<http://www.seer.org>). Poway, CA: Science Wizards, 1998.

"Education for a Sustainable future: Creating Curriculum that Encourages Interdisciplinary, Life-Long Learning", Wheeler, Keith, Center for a Sustainable Future, at <http://csf.concord.org>.

"Education for a sustainable future : a resource for curriculum developers, teachers, and administrators," Manitoba Education and Training (Canada), 2000, at <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED455103>.

"Education for Sustainability: An Agenda for Action", Hulbert, S., Schaefer, M. Wacey, C., & Wheeler, K. (1994), Wash. D.C., U.S. Government Printing Office, a demonstration project of the President's Council on Sustainable Development, at <http://www.gcric.org/edu/pcsd/toc.html>.

"Education for Sustainability", Santone, S., Association for Supervision and Curriculum Development, (1/04)

"Education for sustainable development, Toolkit", McKeown, R. (2002), at <http://www.esdtoolkit.org>

"EE Publications: News and Reports," from NAAEE (the North American Association for Environmental Education), a comprehensive listing of guidelines for environmental education/environmental literacy, at <http://eelink.net/pages/EE+Publications+-+News+and+Reports>

"Environmental Literacy Scope and Sequence: Providing a Systems Approach to Environmental Education in Minnesota," Minnesota Office of Environmental Assistance (2002), at http://www.seek.state.mn.us/eemn_c.cfm.

"From Straight Answers to Complex Questions: A Study of Premises for Learning for Sustainable Development", Björneloo, I., International Consultation on Education for Sustainable Development, Göteborg University (2004), at http://www.learning2004.se/documents/From_straight.pdf.

"Green School Guidelines," Antioch New England Institute, at http://www.anei.org/pages/58_green_school_guidelines.cfm. (Offers a Questioning Framework for Shaping Environmental Literacy, providing targeted guidance for teachers.)

"National Sustainability Education Standards: Version 1," US Partnership for Education for Sustainable Development, at <http://www.uspartnership.org/images/stories/docs/uspartnershipforesdstandardsv1.doc>.

"Planting the Seeds of Knowledge How Environmental Literacy Helps Students Achieve", Franklin, John, ASCD Curriculum Update (Summer 2004)

"Public Linkage, Dialogue, and Education, from Classroom to Community and Beyond: Educating for a Sustainable Future", Task Force Report, The President's Council on Sustainable Development (2/96)

"Sustainability Education Guide", Goldman, H., The Tahoe Center for a Sustainable Future (1999)

Teaching and Learning for a Sustainable Future, at <http://www.unesco.org/education/tlsf/>

“Understanding Environmental Literacy in America: And Making it a Reality”, Kevin J. Coyle, J.D. National Environmental Education & Training Foundation (May 2004)

Environmental Education (Theory & Overview)

Louv, Richard. *Last Child in the Woods: Saving our Children from Nature Deficit Disorder*. Algonquin Books, 2005.

Milbrath, Lester W.. *Learning to Think Environmentally – While There Is Still Time*. State University of New York Press, Albany, 1996.

The Orion Society, at <http://www.orionsociety.org>. Environmental philosophy, analysis, activism, and teacher resources. Dedicated to fostering stewardship and a connection between humans and nature.

Orr, David. *Earth in Mind: On Education, Environment and the Human Prospect*. Washington, DC: Island Press, 1994.

Comprehensive & Interdisciplinary Curriculum Resources

Children’s Environmental Literacy Foundation: <http://www.celfoundation.org>

General sustainability education background. Teacher created sustainability units for K-12. Program calendar for K-12 SE events and workshops.

Creative Change Educational Solutions: <http://www.creativechange.net>

Curriculum and information on sustainability education.

Earth Day Network: <http://www.earthday.net>.

Curriculum and activities for all grades and learning situations.

Educating for Sustainability: <http://www.esded.com.au/>

A resource sharing database to support teachers who are exploring issues of sustainability in their classrooms.

Facing the Future: <http://www.facingthefuture.org>

Curriculum and teacher training on Sustainability Education topics. Offers **Teaching Global Sustainability in the Primary Grades: A K-4 Curriculum Guide**

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

Comprehensive environmental literacy/sustainability resource. A periodical, publishing house, & website.

Basic Environmental Literacy

Project WET, Project WILD, Project Learning Tree.

The “blue chip” standards in basic environmental education about forests, ecosystems, and oceans. Inquiry-based, designed to work in a variety of classroom situations, pegged to standards, teacher-tested. You must attend a very low-cost workshop to get the massive curriculum guide.

Webquests: many “webquests” available on the Internet on environmental topics for elementary grades— inquiry-based and scenario-based explorations of topics. See for example “The Fate of the Rainforests” at <http://www.spa3.k12.sc.us/WebQuests/Rainforests/>;

Rainforest Alliance, at <http://www.rainforest-alliance.org/programs/education/teachers/index.html>.
Curriculum and resources for teachers on rainforests.

Journey North: A Global Study of Wildlife Migration, at <http://www.learner.org/jnorth/index.html>
The site includes teacher materials, background information, and a forum for sharing data that students have collected.

National Geographic Wild World, at <http://www.worldwildlife.org/wildworld/index.html>
Features interactive NGS Wild World maps, adding profiles and photos of more than 1,000 ecoregions, multimedia features, and more. (K-12 Geography/Maps).

Ocean Arks International, at <http://www.oceanarks.org/Education.php>
Classroom ecosystems and great ecosystem curricula/activities.

Schoolyard Ecology, at <http://www.ecostudies.org/syefest/appen1main.htm>
This site offers a wealth of sample activities and investigations that have been field tested by participants in the Schoolyard Ecology project.

It's All Connected (a sample of many possibilities)

Climate Change:

- *Teaching About Climate Change* (Green Teacher, 2001), info at www.greenteacher.com/tacc.html
Good K-6 curricula to help students understand the greenhouse effect and climate change.
- *Dr. Art's Guide to Planet Earth* (book, and accompanying website at <http://www.planetguide.net>).
- EPA's *Climate Change for Kids*, at <http://www.epa.gov/climatechange/kids/index.html>.
- Union of Concerned Scientists, *Global Warming Materials for Educators*, at http://www.ucsusa.org/global_warming/science/global-warming-materials-for-educators.html.
- Renew us, at <http://www.renewus.org> – a 4 minute video on climate change.

Hunger and Food Systems:

- Read to Feed (Heifer International), at <http://www.readtofeed.org/>
- A reading motivation/service learning program. Children are inspired to read more books for pleasure, while raising money, through sponsored reading, to help end world hunger and improve the environment. A global education opportunity (hunger, poverty, sustainable development).
- Edible Schoolyard (info at <http://www.edibleschoolyard.org/classroom.html>)
Lessons and resources on educational uses for school gardens.
- Brooklyn Botanical Garden's *Gardening with Children* (at <http://shop.bbg.org>).
- Organic Food Web Video, at <http://www.storewars.org/flash/index.html>
- An entertaining look at our food systems. For all ages.
- Growing "Three Sisters" Gardens (soil, symbiosis, and Native American history):
 - http://ddl.nmsu.edu/kids/webquests/wqthreesisters_k.html
 - <http://www.kidsgardening.com/growingideas/projects/March02/mar02-pg1.htm>
- National Gardening Association, at <http://assoc.garden.org/about/>
Interdisciplinary exploration of topics in activities that utilize gardens.

- *Cookshop* (info at <http://www.foodchange.org/education/index.html>)
Great elementary curriculum for teaching about food systems, farming, nutrition, and healthy food habits.
- *Global Hunger: Kids Can Make a Difference* (World Hunger Year, 2005). Further info at <https://www.kidscanmakeadifference.org/teac.php>.
- Hunger curricula at Cloud Institute website (middle school), <http://www.sustainabilityed.org>.
- *Hungry Planet* book and curriculum – food from around the world, photo book (by Peter Menzel) and curriculum from Social Studies School Service, at http://catalog.socialstudies.com/c/product.html?record@TF39905+s@8yMnkfRNlfj_U.

Water:

- Pumped Up for Peace project: bring safe drinking water to communities that lack it, at <http://cyberschoolbus.un.org/pufp/peru/about.asp>.
- Planet H₂O – 2-part series, water conservation through the eyes of young people. At <http://www.thirteen.org/h2o/>.
- One sample water-quality webquest – many can be googled on the web!
<http://www.vanderbilt.k12.mi.us/curriculum/Water%20Quality%20Web%20Quest.htm>

Energy:

- U.S. Department of Energy, Energy Lesson Plans, Curriculum, and Educational Materials, at http://www1.eere.energy.gov/education/lesson_plans.html. Here you'll find resources for lesson plans, curriculum, and educational materials for teaching students and children about energy, particularly energy efficiency and renewable energy.
- NESEA's Junior Solar Sprint: a middle-school engineering challenge to race a solar car, with curriculum to also teach about renewable energy and sustainable transportation. At <http://www.nesea.org/education/jss/>.

ZERI stories (info at <http://www.zeri.org/initiative/sixstages.htm>)

Stories that develop systems thinking, capacity to understand sustainability, and the connections between economy, ecology, and society.

Material World and *Women in the Material World*, by Peter Menzel (<http://www.menzelphoto.com>). Photos and facts on people, their lives and their belongings all around the world.

Chris Jordan, *Running the Numbers photographs* and *The Power of One*. Graphic illustrations of the sheer immensity of American consumption, and a movement to take steps to use material resources more responsibly. At <http://www.chrisjordan.com/> and http://www.reuseablesolutions.org/po1/po1_cjordan.asp.

Webquests on interdisciplinary topics, also – see “Children in Colonial America” at <http://www.macomb.k12.mi.us/wq/WebQ97/COLAMER2.HTM>, or topics at <http://www.effectiveteachingsolutions.com/New%20Design/webqueststechnologypage.htm>.

IEARN, The International Environmental and Resource Network, at <http://www.iearn.org>
International network of classroom teachers and teacher-sponsored projects.

Model UN simulation of the Commission on Sustainable Development, at <http://www.una-usa.org>.

Systems Thinking

The Shape of Change (Creative Learning Exchange, 2004)
Systems Thinking exercises for grades 3 – 8.

“Transforming Education: Case Studies in Systems Thinking”, King, Kira S PhD, Frick, Theodore PhD,
American Educational Research Association (April 1999)

When a Butterfly Sneezes, by Linda Booth Sweeney

A terrific resource for any parent or educator who wants to help children think about interconnections in our world. Each chapter focuses on a favorite children's picture book--and reveals the systems principle inherent in the story, general points for discussion, illustrations of key concepts, and questions to spark conversation for both younger and older readers.

Elementary/middle literature with embedded systems thinking: *If You Give a Mouse a Cookie, The Butter Battle Book, The Lorax, Anno's Magic Seeds, Uno's Garden, Letting the Swift River Go*. A more thorough listing and analysis found in Linda Sweeney's book (above).

STELLA systems modeling software, at <http://www.iseesystems.com/>.

Systems Thinking curriculum (Diana Fisher works and others) at
http://www.clexchange.org/lom/cle_books.htm.

Creative Learning Exchange, online resource for teachers and systems thinking: units, books, listserv, etc.
At <http://www.clexchange.org>.

Fishbanks, a fishing game that teaches about economics, ecosystems, the “tragedy of the commons,” and systems. Curriculum at the Creative Learning Exchange (above). Free downloadable software tool at <http://earthednet.org/Support/materials/FishBanks/fishbanks1.htm>, or buy game package at http://www.sustainer.org/tools_resources/games.html.

Love of Place

“Place-Based Education Resource List,” by Hillside Montessori, at
<http://www.hillcountrymontessori.org/sepbe/sepbewhat.htm>.

Mapmaking with Children: Sense of Place Education for the Elementary Years, David Sobel (Heinemann, 1998).

Green Map System, at <http://www.greenmap.org>.
Icon system and curriculum to explore and map neighborhoods.

Exploring Environmental Issues: Places We Live (Project Learning Tree)
Place-based environmental issue exploration from the time-tested Project Learning Tree. Information at http://www.plt.org/cms/pages/21_21_15.html.

Values

The Challenge to Care in Schools (Columbia Teacher's College Press, 2005).

Emotional Intelligence, Daniel Goleman (Bantam Books, 1997).

EcoKids: Raising Children Who Care for the Earth, Dan Chiras (New Society Publishers, 2005).

Citizenship Skills

Connected and Respected: Lessons From The Resolving Conflict Creatively Program, Educators for Social Responsibility, (K-2 and 3-5 volumes).

It's Our World, Too, by Phillip Hoose. Profiles of a diverse community of youth leaders who made the world a better place; also includes information on youth activists in history and a guide to mounting successful social change campaigns. Phillip Hoose is also the author of *Hey Little Ant*, a great tool for character education for younger grades. More info at <http://www.philliphoose.com>.

Democratic Classroom resources, at http://www.newhorizons.org/strategies/democratic/front_democratic.htm.

Students for a Sustainable Future Expo, Children's Ecological Literacy Foundation, at <http://www.celfoundation.org/expo08/index.html>.

Maryland Service Learning and the Environment: <http://www.marylandpublicschools.org/MSDE/programs/environment/Maryland+Service+Learning+and+the+Environment.htm>.

The Green Team, at <http://www.thegreenteam.org/library.html>
Curriculum for environmental stewardship at school.

YouthCAN, at <http://www.youthcanworld.org>.
Youth-led conference on environmental activism, yearly at the American Museum of Natural History and satellite sites around the world.

EPA's Watershed Stewardship page, at <http://www.epa.gov/adopt/earthday/index.html>.

School Programs

Go Green Initiative: <http://www.gogreeninitiative.org>

A program that works to create a culture of environmental responsibility on school campuses throughout the United States.

Grassroots Environmental Education: <http://www.grassrootsinfo.org/>

Grassroots Environmental Education offers several comprehensive programs for both schools and communities. The ChildSafe School is a solution-based program designed to reduce children's exposures to common environmental toxins found in and around schools. The three areas of focus include diesel exhaust from school buses, toxic chemicals in cleaning products, and pesticides used on playing fields and school grounds. Grassroots In-School Environmental Programs are interactive educational programs for grades 4-8, designed to help students understand more about their environment and how it is affected by human activity. How Green is My Town? is a comprehensive program designed to provide community leaders and residents with practical, achievable solutions for addressing issues of global warming, sustainability and environmental health at the local level.

Green Schools Program: <http://www.ase.org/section/program/greenschl>.

The Alliance to Save Energy's program to foster stewardship and energy savings at schools.

NAIS' Challenge 20/29: <http://www.nais.org/resources/index.cfm?ItemNumber=147262>.

NAIS yearly contest to provide "an opportunity for schools — public and private, elementary and secondary — to develop globally based, experiential curricula and to build educational partnerships with schools around the world."

WASTE-FREE LUNCH PROGRAMS: <http://www.epa.gov/epaoswer/education/lunch.htm> and <http://www.wastefreelunches.org/>

A waste-free lunch program begins with a statement. A school community decides that it is going to make waste reduction on campus a priority, and one of the best places to start is with lunch and snack waste. Whether the majority of students brings lunch from home or buys it at school, there's almost always room for improvement.

A waste-free lunch program is a process of educating students, parents, and school staff about where our trash ends up and how we, as individuals, can reduce the amount of trash we generate. Waste-free lunch programs favor the use of reusable food containers, drink containers, utensils, and napkins. They discourage the use of disposable packaging, such as prepackaged foods, plastic bags, juice boxes and pouches, paper napkins, and disposable utensils.