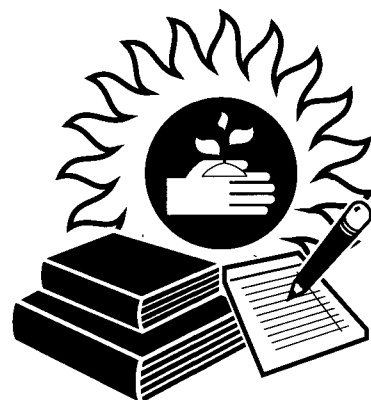




Environmental Education Advances Quality Education

What is Environmental Education?

Environmental education is a learning process that increases knowledge and awareness about the environment and develops skills that enable responsible decisions and actions that impact the environment. Environmental education encourages inquiry and investigation and enables the learner to develop critical-thinking, problem-solving, and effective decision-making skills. Environmental education enables individuals to weigh various sides of an environmental issue. It does not advocate a particular viewpoint or course of action.*



What Do Education Reformers Want? How Does Environmental Education Advance Education Reform Goals?

"Education reform" means different things to different people. But the one thing that all "reformers" agree on is that *the goal of education reform is to improve learning*. Many advocates of education reform are stressing the need to use new approaches to teaching and learning that involve changes in curriculum and instruction. Others are calling for the need for more fundamental changes at the school site and greater accountability and assessment of progress in improving learning. The following are some examples of specific changes reformers are calling for and suggestions about how environmental education can be used as a vehicle to advance these reform goals. For example, reformers are calling for the need to:

* See the UNESCO Tblisi Declaration (1978) and the National Environmental Education Advisory Council's "Report Assessing Environmental Education in the U. S. and the Implementation of the National Environmental Education Act" (1996) (EPA-171-R-96-001). Obtain a free copy of the report by contacting the National Center for Environmental Publications and Information by telephone at 800-490-9198 or order on line at <http://www.epa.gov/ncepihom/orderpubs.html>.

- Provide a *real world context* for learning and linking the classroom to the needs of the community
 - Environmental education teaches about real issues that impact every community such as drinking water quality, indoor and outdoor air quality, habitat improvement, pesticide use and exposure, lead paint poisoning, as well as solid and hazardous waste management.

U.S. Environmental Protection Agency
Region 5, Library (PL-12J)
77 West Jackson Boulevard, 12th Floor
Chicago, IL 60604-3590

- Move away from textbook-driven, teacher-led instruction by using “*hands-on,*” *learner-centered,* and *cooperative learning* approaches where students are actively engaged in their own learning process
 - Environmental education engages the learner in a hands-on, student-driven investigative learning process. Learners could collect and scientifically analyze air samples from their community or water samples from a local stream to assess indicators of air or water quality.

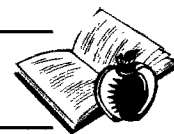
EE and Education Reform at the School Site



The *State Education and Environment Roundtable (SEER)* supports the efforts of 12 state departments of education to improve learning by using the environment as the context for integrating learning across the curriculum. The twelve states are CA, CO, FL, IA, KY, MD, MN, NJ, OH, PA, TX, and WA. For example, the Washington *Creating Model Links* is a project in which schools have developed a curriculum integration plan with EE as the focus of their restructuring efforts (<<http://www.seer.org>; <http://cisl.ospi.wednet.edu/CISL/ENVED/MDLINKS.html>>).

- Focus on the need to develop the learner’s *critical-thinking, problem-solving, and decision-making skills*
 - Environmental education enables the learner to develop critical-thinking, problem-solving, and decision-making skills. Teams of students could investigate the availability and viability of various local modes of transportation as alternatives to single-occupancy, privately-operated vehicles (such as bike paths, use of existing parking lots for car pool parking, and commuter bus and rail lines) and develop a plan for improving citizen choice in local transportation issues.

Curriculum in EE and Education Reform



Project Learning Tree, Project WILD, and Project WET are K-12 environmental education programs that use their interdisciplinary educational materials to foster the development of critical-thinking and problem-solving skills. These programs address a diverse range of topics that include forest ecology, municipal solid waste, risk assessment, energy issues, schoolyard habitat, wildlife conservation and management, wetlands and groundwater management, and water conservation issues. Many of these supplementary curriculum materials were designed specifically with systemic education reform in mind (<<http://www.plt.org>>, <<http://www.projectwild.org>>, and <<http://www.montana.edu:80/wwwwet/>>, respectively).

- Replace the traditional, compartmentalized academic subjects with an *interdisciplinary curriculum* that more authentically connects fields of knowledge
 - Environmental education uses an interdisciplinary curriculum that connects various academic subjects. Students could use an interdisciplinary municipal solid waste curriculum which includes activities that teach about scientific inquiry, solve mathematical problems, promote understanding of the history of local land uses, and improve writing and other communication skills.

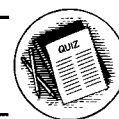
Instruction in EE and Education Reform



The *California Science Implementation Network* uses an interdisciplinary curriculum called *A Child’s Place in the Environment* in more than 100 California elementary schools as part of a systemic professional development effort that focuses on whole school change. Lead teachers participate in 21 days of professional development throughout the year and help engage the entire school in the systemic reform process. The curriculum is aligned with California’s science and social science frameworks (<<http://www.cde.ca.gov/publications/pubs/childsplace.html>>).

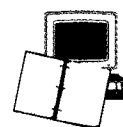
- Place emphasis on the need to set *higher academic standards* and to develop *performance-based assessments* of the learner's ability to meet those standards.
- Teachers can meet higher education standards by selecting environmental education materials that are correlated to their local, state, or national academic standards. Environmental education provides the opportunity to use authentic assessments because students are often involved with real-life projects.

Assessment in EE and Education Reform



The Maryland School Performance Assessment program measures the performance of Maryland schools by examining how well students solve problems individually and collectively, apply what they have learned to real world problems; relate and use knowledge from different subject areas. The primary purpose of the assessment is to provide information to improve instruction in schools. The Assessment includes the use of environmental issues as a problem-solving framework.

Getting More Information



- Visit *EdGateway's "Environmental Education and Education Reform"* World Wide Web site which includes information and examples on linkages between environmental education and education reform relating to curriculum, instruction, assessment, and the school site (<<http://www.edgateway.net/eereform/>>).
- Obtain a copy of a forthcoming publication tentatively titled *"Linking Environmental Education and Education Reform"* which examines linkages relating to instruction, professional development, assessment, standards and guidelines, and school structure. The expected publication date is Fall 1998. For upcoming information, visit the World Wide Web at <<http://naaee.org>> or <<http://www.epa.gov/enviroed>> or contact EPA's Office of Environmental Education at 202-260-4965.
- Attend the annual conferences of the *North American Association for Environmental Education (NAAEE)*. The theme of the 28th annual conference is "environmental education and education reform." The conference will take place in Cincinnati, Ohio from August 27 through 31, 1999. For information, contact Janet Thoreen at 937-676-25164 (phone), jthoreen@erinet.com (E-mail), or visit their World Wide Web set at <<http://naaee.org>>.
- Attend the annual conferences of the *Association for Supervision and Curriculum Development (ASCD)*. The Association has an Environmental Education Network which meets as part of each conference. Their next conference takes place in San Francisco, California from March 6 through 8, 1999. For information, contact ASCD at 703-578-9600 (phone) or visit their World Wide Web site at <<http://www.ascd.org>>.