

Just Say YES to Youth Environmental Stewardship¹

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The Cooperative Extension Service's national initiative in Youth Environmental Stewardship supports youth education programs implemented by Natural Resource and 4-H agents. Extension has a long history of conducting innovative environmental education programs, starting with Cornell University's Nature Study Movement in the late 1800's. Today's broad-reaching environmental issues, complex environmental questions, and diverse solutions make Extension an important player in youth education across the country.

Environmental education programs have gone by different names over the years, each with a slightly different emphasis. The umbrella title, "Youth Environmental Stewardship," enables Extension agents to develop programs that best suit their local needs while capitalizing on the mission of the 4-H program to support youth engaged in community activities. This fact sheet outlines nine philosophies of educational programs that agents could pursue as part of the Youth Environmental Stewardship program. Listed at the end of each section are the Internet addresses of national and state resources that can provide more information.

- Cooperative Extension Supports Youth Environmental Stewardship:
<http://www.cesyes.net/>

Nature Appreciation

Rachel Carson spoke eloquently of a "sense of wonder" about the natural world that is so important to cultivate in children and retain in adults. Research indicates that interaction with nearby nature helps children to build sensitivity and knowledge that becomes the basis for expanding to concepts such as causes, connections, and consequences of environmental issues. Such a direct interaction with the world of dirt, bugs, and critters provides youngsters with an opportunity to stretch their imagination, play with abandon, and develop a sense of self. Furthermore, interaction with nature can measurably improve children's attention capacity and test scores. Both mental and physical health benefits can be gained when children have access to and the freedom to explore outdoors.

Several national programs, such as Journey North, help students track animal migrations and seasonal changes; by entering local data into a Web site, youth can see changes occurring across the

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continent. Outdoor classrooms or school sites encourage teachers to use the world in their daily study. Florida agencies encourage families and schools to recreate and learn outdoors through their Get Outdoors Florida! program. Many 4-H camp programs provide youth with the freedom to enjoy the outdoors, and many 4-H National Contests help build on this nature study aspect with a more rigorous format for identifying plants and animals. Contact the 4-H office in Gainesville to learn more about the many programs at Florida's four 4-H camps and the four annual natural resource contests: Forest Ecology, Marine, Land Judging, and Wildlife Habitat Evaluation.

- Florida 4-H: <http://florida4h.org>
- Journey North: <http://www.learner.org/jnorth>
- Get Outdoors Florida!: <http://www.getoutdoorsflorida.com/>
- Children and Nature Network: <http://www.childrenandnature.org/>
- Nature Explore: <http://www.arboday.org/explore/>

Conservation Education

The term “conservation education” was first used during the Dust Bowl when it was paramount that citizens learn to conserve important soil and water resources before the resources disappeared. Tree planting, wildlife habitat improvement, and new agricultural practices helped hold soil and restore ecosystems. The term is used today to refer to the knowledge and skills needed to protect and wisely use natural resources.

4-H camp programs and National Contests practice conservation education, and so do most 4-H Project Books on forestry, wildlife, soil, and other natural resource topics. Many state and federal agencies and local nature centers provide field trips that support conservation education goals. Field-based instruction programs assist youth in exploring their local surroundings, collecting data, and comparing results with other locations. A variety of programs utilizing field-based instruction are available: water quality monitoring through the

Global Rivers Environmental Education Network (GREEN); observations with birds (Feeder Watch, Pigeon Watch, Nest Box Survey, etc.) through the Cornell Laboratory of Ornithology; and atmospheric, soil, and vegetation surveys with Global Learning and Observations to Benefit the Environment (GLOBE).

- Natural Resources Conservation Service: <http://www.nrcs.usda.gov/feature/education>
- USDA Forest Service, Natural Inquirer: <http://www.naturalinquirer.org/>
- US Fish & Wildlife Service: <http://www.fws.gov/educators/educators>.
- GREEN: <http://www.earthforce.org/green>
- Cornell Laboratory of Ornithology: http://www.birds.cornell.edu/schoolyard/T_Resouces/index.
- GLOBE: <http://www.globe.gov>

Resource Education

Some agencies, such as the National Park Service and the Bureau of Land Management, have an educational mission that includes both the natural and cultural resources. They use the term “resource education” to cover education related to prehistory, culture, battles, water, soil, plants, animals, and all the interactions between them. Indeed, much of our cultural history was shaped by the local environment, like strategic defense posts at mountain passes, water-powered industries at waterfalls, and transportation corridors along rivers.

- National Park Service: <http://www.nps.gov/learn>
- Bureau of Land Management: Learning Landscapes: http://www.blm.gov/wo/st/en/res/Education_in_BLM/Learning_Landscapes.

Environmental Education

Environmental education (EE) evolved in the late 1960's when the conservation of resources did not seem to be sufficient to combat the complex factors associated with environmental degradation,

such as disposing of toxic waste, disappearing biodiversity, and declining air and water quality. Citizen involvement was required to support legislation to guide industry and agencies, and education was needed to prepare citizens for this role. EE programs operate in the rural and urban environments to increase knowledge and awareness of systems and issues, build commitment and interest, and motivate learners to cooperate to resolve these issues. Good EE programs are based on a strong foundation of nature awareness and conservation education, and evolve to prepare older youth to analyze issues and choose responsible environmental behaviors.

Many 4-H agents use a variety of national programs to support EE in the schools and clubs such as Project Learning Tree, Project WET, and Project WILD. These programs use trees, water, and wildlife, respectively, as vehicles to learn about the environment and strategies for responsible environmental actions. Many other organizations have good EE programs, such as World Wildlife Fund's Windows on the Wild (WOW). Additional resources can be identified through national organizations like NAAEE and Web sites such as EE-Link and Eisenhower National Clearinghouse.

- Project Learning Tree: <http://sfrc.ufl.edu/plt/>
- Project WET:
<http://www.sjrwmd.com/education/projectwet/>
- Project WILD:
http://www.myfwc.com/LEARNING/Learn_ProjectWILD.
- North American Association of Environmental Education: <http://www.naaee.org>
- EE-Link: <http://www.eelink.net>

Service Learning

Although environmental education programs can lead to appropriate environmental actions, a host of challenges prevent most teachers from achieving this goal. Complementary programs have been developed to bridge this gap. Service learning, widely supported by school systems and youth groups as a technique to build society-ready citizens and improve local

communities, is a natural complement to 4-H and environmental education programs. Rather than merely conducting a project or volunteering with an agency, good service learning engages the youth in exploring the issue or topic with local experts, planning a strategy for conducting their project, reflecting on the process of their activity, and celebrating their success. By working in their own community with local experts, youth build skills and improve their environment. Give Water a Hand and Give Forests a Hand are two programs developed by the Cooperative Extension Service to promote youth community service projects. Learn and Serve grants are available to support service learning activities, and many state and federal agencies provide support in the form of staff assistance and resource conservation projects for youth.

- Earth Force: <http://www.earthforce.org>
- Give Water A Hand:
<http://www.uwex.edu/erc/gwah>
- Give Forests A Hand: <http://sfrc.ufl.edu/gfah/>
- Hands On The Land: <http://handsontheland.org/>
- Adopt Your Watershed:
<http://www.epa.gov/adopt>

Place Based Education

Place-based education uses the local environment to enable youth to explore their history, ecology, heritage, and culture while they gain skills in language arts, math, science, and social studies. Service learning projects are often a significant component of place-based education, as these activities enable youth to learn as they engage with local leaders and create opportunities to develop projects. It developed, in part, to respond to the frequent use of global environmental issues to engage youth in environmental problems. Particularly young children should learn about their own environment before tackling the globe. The multiple focus on student achievement, culture and community, and ecology enables place-based education to support education for sustainability.

- The Promise of Place:
http://www.promiseofplace.org/what_is_pbe
- Place-based Education and Evaluation
Collaborative: <http://www.peecworks.org/index>

Wilderness Education

Many educators look to wide-open spaces as the backdrop for significant learning experiences. By combining adventure, risk, and the environment, youth learn responsibility, cooperation skills, group communication strategies, and empowerment. Wilderness education programs often include a strong values component, helping to instill a deep respect for the wildland communities. "Leave No Trace" is a message and program that helps youth groups explore and enjoy the wilderness while reducing their impact on the system. The Leopold Education Project and the National Outdoor Leadership School offer curriculum and opportunities to gain skills in wilderness education.

- Leave No Trace: <http://www.lnt.org>
- Leopold Education Project:
<http://www.lep.org>
- National Outdoor Leadership School:
<http://www.nols.edu>

Education Reform Efforts and the Environment

School systems across the country are establishing state standards for curriculum and state achievement tests to measure student performance under the federal legislation No Child Left Behind. While some see this as the death knell for supplemental activities such as environmental education, others see the enormous opportunity for the environment to provide the structure and the relevance to engage youth in meaningful education. The State Environmental Education Roundtable sponsors research to identify and quantify outcomes of using the environment as an integrating context for educational programs. Environmental educators with a variety of different state and federal programs are correlating their programs to state curriculum standards. Educational goals such as critical thinking,

citizenship, and workforce preparedness can be achieved through dynamic, well-designed environmental projects. Advocacy efforts in support of environmental education are encouraging a supplement to No Child Left Behind called No Child Left Inside that would encourage teachers to use the outdoors to enhance learning. Extension agents could play a leadership role in linking schools and educators to local resources and programs.

- State Environmental Education Roundtable:
<http://www.seer.org>
- No Child Left Inside:
<http://www.cbf.org/Page.aspx?pid=687>

Conclusion

A variety of resources are available to support agent program development in Youth Environmental Stewardship, by any name. Many of these philosophies complement each other and can be molded to create a satisfying program. Different audiences may be more suited to one type of program than another. Enjoy exploring the diversity of opportunities and launching your own rewarding YES program.