

Just Say YES to Youth Environmental Stewardship¹

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Cooperative Extension has a long history of conducting innovative environmental education programs, starting with Cornell University's Nature Study Movement in the late 1800s. 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 eight philosophies of educational programs that agents could pursue as part of their 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.

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. Building a connection to nature has become very popular in the wake of Richard Louv's book, *Last Child in the Woods*, which describes the perils to our youngsters of growing up without making forts, splashing in streams, and watching squirrels.

An international effort, Children & Nature, assembles resources and coordinates activities to support nature-based experiences and learning. Several national programs, such as Journey North, help students track

animal migrations and seasonal changes; by entering local data into a website, youth can see changes occurring across the continent. Outdoor classrooms or school sites encourage teachers to use the world in their daily study. 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 annual natural resource contests such as Forest Ecology and Nature Poetry.

- Children & Nature Network: <https://childrenandnature.org>
- Florida 4-H: <https://florida4h.ifas.ufl.edu/>
- Journey North: <https://journeynorth.org/>
- Nature Explore: <https://natureexplore.org/>
- National Wildlife Federation: <https://www.nwf.org/Kids-and-Family/Connecting-Kids-and-Nature>

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: 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).

- USDA Forest Service, Natural Inquirer: <https://www.naturalinquirer.org/>
- US Fish & Wildlife Service: <https://www.fws.gov/education-programs>
- Cornell Laboratory of Ornithology: <https://www.birds.cornell.edu/home>
- GLOBE: <https://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. The National Parks Foundation offers a variety of programs with our national parks that can be adapted to other locations.

- Parks as Classrooms: <https://www.nps.gov/gett/learn/education/classrooms/index.htm>
- National Park Service: <https://www.nps.gov/teachers/index.htm>
- Bureau of Land Management: Learn: <https://www.blm.gov/education>

Environmental Education

Environmental education (EE) evolved in the late 1960s when the conservation of resources was not 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 (PLT), Project WET, and Project WILD. UF/IFAS School of Forests, Fisheries, and Geomatics Sciences houses Florida's Project Learning Tree (PLT) State Coordinator. These programs use trees, water, and wildlife, respectively, as vehicles to learn about the environment and strategies for responsible environmental actions. Other environmental issues, like climate change and biodiversity, also have high quality educational

resources. Additional resources and professional development opportunities are available through the member association, North American Association for Environmental Education.

- Project Learning Tree: <https://programs.ifas.ufl.edu/plt/>
- Project WET: <https://leef-florida.org/Project-WET>
- Project WILD: <https://myfwc.com/education/educators/project-wild/>
- North American Association of Environmental Education: <https://naaee.org>
- NOAA's Climate Education program: <https://www.climate.gov/teaching>

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. These programs often emphasize the local place, helping youth learn about and improve their own community. Many state and federal agencies provide support in the form of staff assistance and resource conservation projects for youth.

- Earth Force: <https://earthforce.org>
- Center for Place-Based Education: <https://www.antioch.edu/centers-institutes/center-place-based-education>
- The Nature Conservancy: <https://www.nature.org/en-us/about-us/who-we-are/how-we-work/youth-engagement/>

Civic Engagement for Environmental Issues

In many ways, civic engagement is at the core of environmental education, since environmental problems are not resolved by individuals alone, but by people working together and with their community decision makers. Youth can learn about their community and make a long-term difference in their community by engaging with stakeholders, organizations, and community leaders. Since youth may be prone to leap at the first hint of a

solution, or wish to march to city hall to demand action, educational programs are designed to help youth first investigate the issue, meet local leaders, explore various perspectives, and think about the consequences of each alternate action before deciding on a plan. Several clubs in Florida have pilot tested a new program called CAPE: Community Action Projects for the Environment, that is modeled off the national environmental civic engagement program, Earth Force. These programs build important life skills in communication, group process, leadership, and systems thinking.

- Community Action Projects for the Environment: <https://programs.ifas.ufl.edu/cape/>
- Earth Force: <https://earthforce.org>

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 National Outdoor Leadership School offers curriculum and opportunities to gain skills and practice ethical actions in wilderness education.

- Leave No Trace: <https://lnt.org/>
- National Outdoor Leadership School: <https://www.nols.edu/>

Education for Sustainability

The international community supports education that leads toward the conservation of natural resources, the equitable distribution of wealth and services, and the opportunities provided by economic development. This combination of ecology, development, and social justice is termed "sustainable development." Some environmental education programs meet these three goals, but the term Education for Sustainability implies a concerted effort to explore the complexity of using resources for development and growth while protecting the ability of the ecosystem to provide for the future. In 2002 the international community established the Decade for Education for Sustainable Development from 2005 to 2014. 4-H projects could combine any of these elements, such as investigating the health effects on people of color living near a landfill, improving water quality of runoff from agricultural lands by using agroforestry techniques, or encouraging the use of birds to reduce insect pests on small family farms. This increased complexity begins to help 4-H'ers weave different program stands together, as small business development, environmental quality, and food production are all important challenges in education for sustainability.

- Second Nature: <https://secondnature.org>
- The Cloud Institute: <https://cloudinstitute.org>
- Sustainable Schools Project: <https://shelburnefarms.org/educators>
- UNESCO, Education for Sustainable Development: <https://www.unesco.org/en/education/sustainable-development>

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.

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