



Nature-Based Youth Programs

Why They Matter for Youth Learning and Development

Young people today are facing challenges that will influence their generation for the rest of their lives.

The COVID-19 pandemic has created a dual health and economic crisis for communities, disrupted key social supports, and reshaped the ways that young people learn and interact.¹ An awareness of systemic racial inequality and global inaction on climate change has mobilized this new generation to speak up and take action. Simultaneously, a converging set of scientific findings across disciplines has identified the key factors that influence young people's development and transition to adulthood.

The science of learning and development is a multidisciplinary effort to integrate research from diverse disciplines.²

This body of evidence covers biological, social, and behavioral processes, among others, that influence human learning and development. In addition, this scientific knowledge describes the individual developmental processes as well as the environmental and contextual influences on learning and development. As a convergence of findings from these disciplines, the science of learning and development can guide youth-serving systems in supporting all young people to thrive.



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Nature-based Youth Programs expose young people to outdoor education through a mix of experiential learning, open exploration, and physically or psychologically challenging tasks. Programs' learning and development focus can include increasing awareness and knowledge of environmental issues, as well as an intentional focus on character development and social and emotional learning.^{3, 4, 5, 6}

One central theme of the science of learning and development focuses on the conditions for learning.

Programs working with youth should prioritize relationships, allow for the individuality of each learner, and provide diverse content and hands-on learning opportunities. High-quality nature-based youth programs⁷ meet these criteria—they connect young people to the outdoors, promote hands-on environmental learning, and develop key character and social competencies for young people.^{8,9,10,11} Nature-based youth programs are rooted in the understanding that natural settings provide deep developmental benefits for humans that are magnified when programs support intentional, high-quality conditions for learning.^{12,13}



This brief is part of a three-part series focused on connecting **the science of learning and development** to the approaches and impacts of youth serving nature-based organizations. The series includes *Why Does Nature Based Programming Matter*, *Robust Equity in Nature Based Programming*, and *Nature Based Youth Programs: Building Adult Capacity*.

The three briefs are based on a series of interviews with three prominent experiential and nature-based organizations:

NatureBridge provides overnight, hands-on environmental science programs, taking children and teens to national parks to experience the wonder and science of the natural world, connect with peers, discover themselves, and develop a lasting relationship with the environment.

Outward Bound serves youth to adults through challenging learning expeditions that inspire strength of character, leadership, and service to others, both in and out of the classroom. Outward Bound provides nationwide programming through 11 chartered sites and more than 1,000 courses. Thompson Island Outward Bound, one of the 11 sites, partners with Boston Public Schools to provide free outdoor education programs to students on the island's 204 acres of preserved land in Boston Harbor.

Student Conservation Association is America's conservation corps, building the next generation of conservation leaders and inspiring lifelong stewardship of the environment and communities. Members engage in hands-on service to protect and restore national parks, marine sanctuaries, cultural landmarks, and community green spaces in all 50 states.

For the nature-based youth-serving programs interviewed for this brief, a defining characteristic is a belief in the twofold developmental benefits of nature: nature as an impactful program setting as well as an educational tool.

The nature-based youth programs interviewed for this brief share four common program elements:

- *Immersion in nature:* Programs range from fully residential, offering multiple-day stays in parks and reserves, to school- or center-based, with excursions to natural settings.
- *Relationship based:* Programs have a high staff-to-youth ratio and are committed to fostering deep community and learning through co-inquiry with adults and youth in the program.
- *Real-life and applied learning:* From setting up a tent in the rain to developing a plan for a wetland remediation project, programs are invested in youth learning that is real and applied.
- *Environmental stewardship:* Nature is a setting for learning and being in nature can spark a commitment to environmental stewardship and the preservation of natural places.

Nature-based youth programs promote an array of benefits for young people, including increased happiness, a greater sense of purpose, an enhanced feeling of belonging to a community, and positive impacts on physical and mental health.^{14, 15, 16, 17, 18, 19} Below, we detail the specific benefits of the four shared nature-based youth program elements and how they align with the science of learning and development.

Immersion in nature. Findings show that context is critical: The experiences, environments, and cultures of a young person's life influence learning and development.^{20, 21} Young people who spend time in outdoor spaces—even smaller green spaces within urban areas—report increased well-being and “psychological ease,” sometimes weeks after the experience.^{22, 23, 24} Changing young people's physical setting through immersion in nature-based programs has significant benefits for youth learning and development.

Relationship based. Evidence suggests that strong relationships are essential for youth learning and development, and that trusting and positive relationships can buffer the impacts of adverse experiences or trauma.^{25, 26} Through nature-based opportunities, young people find a sense of community and build strong personal relationships with their peers and program leaders.^{27, 28} Providing access to nature-based programs gives youth access to the supportive effects of these meaningful relationships.

Real-life and applied learning. The research tells us that every young person learns and develops differently, and that learning happens in a nonlinear way.²⁹ Nature-based youth programs provide a real-life setting for young people to experience and learn new things, apply learning, and make connections to other learning or experiences.³⁰ Natural settings allow young people to engage with the content and skill building in differentiated ways to meet their individual learning needs. In addition, learning that is integrated across content and skill-building areas allows youth to develop complex neural connections.³¹ Nature-based youth programs provide an ideal environment for this type of cross-disciplinary learning, promoting experiences and support for youth to develop diverse content knowledge and skills, including social and leadership competencies.^{32, 33} Nature-based experiences allow young people to engage with learning in individualized ways, while also providing opportunities for rich and cross-content connections and skill building.

Environmental stewardship. Outdoor programs provide powerful experiences that enhance “connection to, knowledge of, and orientation toward nature.”³⁴ Young people participating in these types of programs develop high levels of environmental literacy, pro-environmental behavior, and emotional intelligence.^{35, 36} Research suggests that young people reflect and learn within their social and cultural contexts, seeking patterns for how ideas interrelate and can be interpreted. Within and outside of a young person’s direct community, these programs provide experiences that demonstrate the deep interconnections within the environment. As we look to a future of significant environmental challenges, providing culturally relevant and socially connected opportunities for youth to create distinct relationships with the environment through positive and significant learning experiences is an essential way to grow a new generation that is committed to preserving our environment.

Today, youth are spending roughly half as much time outdoors as they were 20 years ago.³⁷ Young people need positive experiences in natural settings to gain the physical and mental benefits of being outside, and to develop a connection to the environment. Nature-based programming is an important way for many youth to engage with the natural world. In addition to the benefits of the setting, nature-based youth programming provides deep relational and developmental benefits through structured outdoor learning, leadership, and stewardship opportunities.³⁸ Increasing equitable access to opportunities and inclusive experiences in nature-based programming ensures that young people have deep and supportive learning experiences, meaningful relationships, and the opportunity to grow themselves as empowered leaders.



Endnotes

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