An Environmental Literacy Plan for Maine

Educators, business leaders, and policymakers are advocating for America to create environmentally literate high-school graduates—the adult citizens and global caretakers of tomorrow.

An Environmental Literacy Plan for Maine will:

- ***Help Maine attain statewide learning goals*** for K-12 students;
- ***Motivate high-school graduates*** to pursue higher education and careers in STEM (science, technology, engineering, and math) disciplines;
- ***Help students stay physically and mentally healthy***, through increased time outdoors;
- ***Promote educators' understanding and application of best practices*** for environmental education;
- ***Increase collaboration and leverage expertise and resources*** among educational programs reaching students after school and through service-learning, community, and outdoors programs; and
- ***Benefit Maine's environment and economy*** by preparing young people to become citizens with the knowledge and skills to make responsible decisions that protect ecosystems and support a sustainable, green economy.

"Environmentally literate people think about environment-related challenges in ways that contribute to solutions that help restore and protect healthy human and natural communities. By helping Maine's young people become environmentally literate, we are cultivating innovation, prosperity, and leadership for the future."

Ted Koffman, Executive Director
Maine Audubon

Maine's Environmental Literacy Plan Coalition includes Maine Audubon, Maine's Department of Education and Department of Conservation, and the Maine Environmental Education Association.

The Case for Maine's Environmental Literacy Plan

For Maine's healthy future, Maine's people must be able to make informed choices about environmental issues such as air quality and land and water use.

Environmental literacy for Maine means its citizens will know:

How ecological systems work, and how humans and nature interact within those systems;

How to make responsible decisions based on scientific, economic, aesthetic, and ethical considerations; and

How to confidently exercise rights and responsibilities as community members who can help restore and sustain healthy, productive environments.

"Developing an environmental literacy plan for Maine strengthens the connection between Maine's state standards, how we teach these ideas in our classrooms, and the applications we make to the environment and issues of sustainability. Our students and our state benefit from this work."

Susan A. Gendron, Commissioner
Maine Department of Education

Maine's Environmental Literacy Plan

Connecting educators, communities, and resources to help Maine's young people become environmentally literate citizens ready to work, participate, and lead in the 21st century

www.maineaudubon.org/explore/EnvironmentalLiteracy

What is environmental literacy?

Coined in the late 1960s, the term "environmental literacy" represents environmental education strategies and goals that have won significant endorsement by K-12 educators who are preparing today's young people for post-secondary education and careers.

Environmentally literate students are able to recognize the components of healthy environmental systems and what actions are necessary to maintain, restore, or improve their health. They understand key, science-based concepts and connections, and have the skills and confidence needed to help develop technology and other solutions for 21st century challenges.

Why does Maine need an Environmental Literacy Plan?

The knowledge, skills, and confidence students will gain through environmental literacy education could help them:

Find success in STEM (science, technology, engineering, math) careers and as part of the "green jobs" economy;

Serve as teachers, elected officials, and other role-model and leadership positions; and

Contribute to their communities by helping make informed decisions about environmental issues such as air quality and land and water use.

"This plan will reinforce the strong connection Mainers have toward our most special places: 17 million acres of forest, 10.4 million acres of unorganized territory, 48 parks and historic sites and almost 600,000 acres of public land. Having citizens who know and value the natural world around them is critical to our state's future."

Eliza Townsend, Commissioner
Maine Department of Conservation

What are the benefits of environmental education?

Environmental education can provide hands-on, place-based activities that weave together real world experiences and classroom learning. Environmental education is part of classroom curricula, not a replacement for it.

Mainers are fortunate to have ready access to diverse spaces that can serve as experiential learning environments including forests, beaches, marine and freshwater ecosystems, parks, zoos, aquariums, nature centers, and farms.

However, environmental education can take place anywhere people are interested in observing and investigating the natural world around them. Ants marching along a city sidewalk, pigeons nesting on a rooftop, schoolyard gardens, and classroom science experiments all provide excellent opportunities to learn about natural systems and environmental issues.

Environmental education has been shown to contribute to overall academic achievement. Quantitative and qualitative studies highlight its immense benefits. In a study of 40 schools, 92 percent of students who were part of environmental education programming "academically outperformed their peers in traditional programs."[1]

The same study indicates that students learn more effectively within an environment-based context than within a traditional educational framework. Benefits include:

Better performance on standardized measures of academic achievement in reading, writing, math, science, and social studies;

Reduced discipline and classroom management problems;

Increased engagement and enthusiasm for learning, and greater pride and ownership in accomplishments.

Why is now the best time to draft the plan?

When the federal Elementary and Secondary Education Act (ESEA) is reauthorized, it is likely to include new language and funding to support environmental education nationwide — and only states with qualifying Environmental Literacy Plans will be eligible. The act currently includes $500 million to support environmental education.

But that's not the only reason to act now.

In our media-rich world, children today are exposed daily to environmental news ranging from stories about local fish kills, to national and worldwide natural disasters, to reports about climate change. Students need the critical thinking skills and content knowledge to process and assess this information effectively.

It's also important to help Maine students become competitive with their peers nationally and internationally. Students in the United States achieve below the international average on tests of science and mathematics literacy on the Program for International Assessment (PISA).

While Maine scores in the top 10 states for science and mathematics on the National Assessment of Education Progress (NAEP), overall student achievement scores in Maine have shown little improvement over the last five years, and the percentage of students performing at the highest levels of achievement in science has declined. Other states, however, have demonstrated improved student achievement in the last five years.

"The Maine Environmental Education Association (MEEA) applauds the development of an Environmental Literacy Plan for Maine. It will provide Maine K-12 students and educators with the structure needed to strengthen environmental literacy for Maine in the future."

Patricia Maloney, President
Maine Environmental Education Association

How will the environmental literacy plan link to Maine's other statewide efforts?

Stakeholders in Maine are working to coordinate education priorities, environmental initiatives, and environmental education efforts across the state. Creating an Environmental Literacy Plan for Maine connected to the larger effort of strengthening STEM (science, technology, engineering, mathematics) learning will strengthen coordination and improve learning for Maine's children.

Do Maine students receive environmental education now?

A broad network of Maine community organizations, public agencies, and businesses are committed to providing high-quality environmental education for teachers and students.

Maine teachers, schools, and parent organizations are looking for creative ways to improve students' test scores, including providing hands-on learning experiences and taking advantage of environmental education programs and resources.

When environmental educators have the chance to collaborate with schools, their expertise and training can provide:

Programming that links to Maine's learning standards and includes outdoor exploration;

Specialized tools and equipment such as taxidermy and fossil collections, interactive exhibits, and live animals that have been rescued and are cared for by naturalists; and

Funds to offset program expenses.

For more information, contact...

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[1] February 1999, from EETAP Resource Library No. 46