

ENVIRONMENTAL LITERACY: BUILDING TOMORROW'S WORKFORCE

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WHY IT MATTERS

Virginia's environmental challenges—from sea-level rise to water quality degradation—demand a workforce that is not only environmentally aware but also equipped with the skills to address complex, real-world problems. Environmental literacy prepares students to meet this demand by fostering the knowledge, competencies, and habits necessary to navigate and contribute to a rapidly changing world. As defined by the Virginia Department of Education (VDOE), “Environmental Literacy is having the knowledge, skills, and dispositions to solve problems and resolve issues individually and collectively that sustain ecological, economic, and social stability.”¹

Environmental education is more than a requirement within the Virginia Standards of Learning (SOLs)—it is a strategic investment in the Commonwealth's economic future. Students who participate in high-quality environmental education experiences gain valuable workforce skills: critical thinking, problem-solving, effective communication, teamwork, and the ability to design local actions to improve community wellbeing.² These are foundational skills not only for green careers, such as renewable energy, sustainable agriculture, and natural resource management, but also for a wide range of professions essential to an efficient and sustainable economy in Virginia.

Employers in sectors like construction, healthcare, manufacturing, technology, and public administration increasingly seek employees who understand sustainability principles, can collaborate across disciplines, and are prepared to work in a resource-constrained, innovation-driven economy.³ For example: construction and engineering professionals use environmental knowledge to design infrastructure that is resilient to climate risks; healthcare providers with an understanding of environmental impacts can better address issues like asthma, heat stress, and waterborne diseases; and policy-makers and business leaders rely on environmental literacy to make informed decisions that balance economic growth with regulatory compliance and environmental protection.

Investing in environmental education ensures that Virginia students, regardless of the careers they pursue, enter the workforce better equipped to think critically, act responsibly, and contribute meaningfully to both the economy and their communities.

CURRENT LANDSCAPE

Environmental literacy in Virginia is advanced pri-

marily through SOLs and strengthened by community-based partnerships. VDOE mandates that environmental education be included in science instruction and encourages interdisciplinary approaches. Programs like Virginia Naturally and the Virginia Environmental Literacy Plan (VELP) promote Meaningful Watershed Educational Experiences (MWEEs)—hands-on, outdoor learning opportunities that build real-world knowledge and skills.

Despite these frameworks, implementation remains uneven across the Commonwealth. Many schools—especially those in under-resourced areas—lack the curriculum materials, funding, and teacher professional development opportunities needed to deliver high-quality environmental education. MWEEs are a critical component of environmental literacy, but these experiences are still not universally accessible to Virginia students, despite being a commitment of the Commonwealth under the Chesapeake Bay Agreement.⁴

State funding for environmental education remains limited. The Virginia Department of Conservation and Recreation (DCR) administers the Virginia Watershed Education Program Fund, which anticipates awarding \$250,000 to schools and community partners to support programming during the 2025-2026 school year. However, the need far outpaces available resources—DCR reported receiving \$1,052,061 in funding requests in 2025, demonstrating a substantial funding gap.⁵

Compounding the problem, federal support for environmental education has declined. From 2020 to 2024, Virginia received more than \$2.8 million in funding through NOAA's Bay Watershed Education and Training (B-WET) program, plus an additional \$1.2 million through multi-state B-WET awards.⁶ These funds supported high-quality MWEEs through local partnerships. However, recent cuts to federal education and environmental programs—including B-WET—will leave significant gaps that the state must fill.

OPPORTUNITIES

Through the Chesapeake Bay Watershed Agreement, Virginia has committed to providing every student with at least three MWEEs during their K-12 education. Yet, the state invests just 30¢ per student, 89% less than Maryland (\$2.78 per student) and 48% less than Pennsylvania (58¢ per student). With only \$250,000 allocated annually, Virginia risks falling short of its commitment and leaving students behind.

This gap has widened with the recent loss of critical federal funding sources. Without these federal resources, state-level investment is more important

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than ever to maintain and expand access to hands-on learning experiences that foster environmental stewardship.

To meet the Commonwealth's commitments and ensure every student has access to high-quality environmental education, we recommend increasing the DCR Virginia Watershed Education Program Fund from \$250,000 to \$1.5 million annually (allocating \$3 million across the biennium) to support and scale MWEE implementation statewide. This investment is not only essential for education, but also for building a skilled and competitive workforce.

TOP TAKEAWAYS

Environmental literacy is essential to preparing Virginia's students for careers in both environmental and non-environmental sectors.

As Virginia loses key federal funding sources like NOAA B-WET, state investments are more critical than ever. Virginia is at risk of falling behind neighboring states that are outpacing Virginia's investments in environmental literacy and workforce readiness.

Virginia is far behind other states in our region and leading states (nationally) on support for these critical environmental literacy programs.

ENDNOTES

1. *Environmental Literacy*. (2022). Virginia Department of Education. <https://www.doe.virginia.gov/teaching-learning-assessment/instruction/environmental-literacy>
2. Ardoin, N. (n.d.). *The Benefits of Environmental Education for K-12 Students*. North American Association for Environmental Education. <https://naaee.org/programs/eeworks/benefits-k12-students>
3. *Environmental Health*. (2022). World Health Organization. https://www.who.int/health-topics/environmental-health#tab=tab_1
4. *Meaningful Watershed Educational Experiences*. (n.d.). Chesapeake Bay Program Education Workgroup. https://www.chesapeakebay.net/documents/Revised_MWEE_definition_-_FINAL.pdf
5. Schoenwiesner, L. (2025, May 28). Data for VCN workgroup. Virginia Department of Conservation and Recreation.
6. *Past and Current Chesapeake B-WET Projects*. (2025). NOAA. <https://www.fisheries.noaa.gov/new-england-mid-atlantic/chesapeake-bay/past-and-current-chesapeake-b-wet-projects#multistate>