

DRBA IN THE CLASSROOM



Thank you for being a hero in environmental education and a partner in the preservation of our natural resources. Training our children to be good stewards of our planet should always be a top priority.

DRBA in the Classroom is an amazing menu of programs that brings nature to the classroom and makes it a mission to improve math and science grades, inspire environmental awareness and teach an appreciation of the natural world.

DRBA in the Classroom connects students to their local watershed and you as a facilitator are the important link to that connection.



Programs available in Virginia & North Carolina
Contact (336) 627-6270 or drba.nc@danriver.org

Benefits

Builds Critical Thinking and Relationship Skills

Environment-based education emphasizes specific critical thinking skills central to “good science”—questioning, investigating, forming hypotheses, interpreting happens in project-based learning, they found unique opportunities to build relationships.

Learning Becomes Rich and Relevant

Using outdoor settings like wetlands, schoolyard habitats, or even rivers can infuse a sense of richness and relevance into a traditional school curriculum. Classes can combine learning with recreation and exercise, for example, students study river ecology while kayaking. These hands-on experiences motivate students to learn, and they pay off in better test scores, better social skills, and increased parental involvement.

Creates Real-World Problem-Solvers

An environment-based approach to education can help lay the foundation for building students’ problem-solving skills. Environment-based education employs these key strategies for teaching creative and successful problem solving such as inquiry-based instructional activities with real-world applications, allowing individual choice about and engagement in the particular problem to be solved, helping students make connections between disciplines, and fostering independent and cooperative group learning.

Students Become Self-Directed Learners

Sometimes traditional instruction, such as lecturing, is the most practical approach to covering broad content. But when students learn through a problem- or project-based approach—a key strategy in environment-based education—they gain a better understanding of what they learn, they retain it longer, and they take charge of their own learning—key skills for success in our data-driven, rapidly changing world.

Get Apathetic Students Excited About Learning

Even bright students can be uninterested in learning —especially if they think that what they’re learning is not relevant to their everyday lives. But tap into their interests—for example, as environmental education does, with its emphasis on the living world and hands-on activities—and students suddenly get excited.

Access to Nature and Outdoor Play Offer a Host of Health Benefits

Several studies have investigated influence natural environments have on both physical activity and childhood chronic conditions. Children who spend more time outdoors tend to be more physically active. Natural environments also have an effect on attentional disorders such as attention-deficit/hyperactivity disorder (ADHD). One recent study found that children with ADHD concentrated better after a walk in the park than those who participated in a downtown or neighborhood walk.

TROUT IN THE CLASSROOM



Fish have been on the earth for more than 450 million years, long before dinosaurs roamed the earth. 40% of all fish species inhabit fresh water, yet less than .01% of the earth's water is fresh water.



Students test the water quality of the aquarium.



Students watch as their eggs grow to fingerlings.



Students release their fingerlings in the river.

Trout in the Classroom (TIC) is an environmental education program in which students from kindergarten to high school raise trout from eggs to fingerling, monitor water quality, engage in stream habitat study, learn to appreciate water resources, begin to foster a conservation ethic, and grow to understand ecosystems.

Widely popular in classrooms throughout the Dan River Basin, Trout in the Classroom (TIC) is closely connected to state learning standards and enhances math, science and language arts curricula for students of all ages. Students receive their fish eggs in the Fall and take care of them during the school year until they become fingerlings and then release them into a local coldwater stream. During the program, students learn to see connections between the trout, water resources, stream environment and themselves. Teachers also tell us that their students show improved behavior and attendance, in addition to increased science, math and language arts skills.

The TIC program also has environmental impact. Trout are indicator species, their abundance in local rivers directly reflects the quality of the water in which they live. The vision of DRBA and its partner, Trout Unlimited, is to ensure that robust populations of native and wild coldwater fish once again thrive within their North American range, so that our children can enjoy healthy fisheries in their home waters. TIC brings this vision directly to the members of this generation by allowing them to discover the wonder of nature for themselves.

Dr. David Jones started the program in Henry County, VA because he understood the importance of educating young minds on water conservation. According to Dr. Jones, "It's not really so much about the fish as it is about excitement in education, a whole new way of learning. There's no subject they can't relate to Trout in the Classroom."

Get Started!

Receive permission from your school administration for the TIC program. A six month commitment is required.

Find an appropriate site for the aquarium and equipment.

Contact your nearest DRBA office in May or June to for a site visit and TIC training.

Visit www.troutintheclassroom.org for lesson plan ideas and technical assistance.

How much does it cost?

The average cost per classroom is \$1,000. Funding assistance may be available through DRBA.

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School Year Schedule

AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
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Aquarium set-up, fish eggs delivered

Watching fish grow, maintenance of aquarium, in-class instruction.

Fish are released in to the river.



TIC can be found in classrooms throughout the United States.



Trees in the Classroom provides an interactive way to learn math, science and language arts and a level of understanding and appreciation for the protection of natural resources.

in the **classroom**



Get Started!

Receive permission from your school administration for the program. A six month commitment is required.

Find an appropriate site for the equipment near sun with good ventilation.

Contact your nearest DRBA office in May or June to for a site visit and training.

How much does it cost?

The average cost per classroom is \$1,000. Funding assistance may be available through DRBA.

This popular program plants a seed of learning and life-long stewardship for learners K-12 as students plant trees from seedlings, care for them, and eventually plant them as streamside buffers. Students have the opportunity to learn about local trees and how trees are used to protect other natural resources. This program can be closely tied to state learning standards.

School Year Schedule

AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
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Seedlings and equipment set-up	Watching seedlings grow, maintenance, in-class instruction.	Trees are planted.
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Trees are the longest living organisms on earth and help purify the air. One tree produces nearly 260 pounds of oxygen each year. One acre of trees removes up to 2.6 tons of carbon dioxide each year.



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Recycling one aluminum can saves enough energy to run a TV for three hours -- or the equivalent of a half a gallon of gasoline.

iIMPACT



The ilmpact program not only teaches students about how to protect natural resources, it can enhance their creativity.

ilmpact gives students an opportunity to understand the environmental consequences of their everyday actions, learn how to reduce their negative impact on natural resources, and utilize their creative skills to give trash a new life outside of a landfill.

This reduce, reuse, recycle program teaches K-12 learners why it is important to reduce our carbon footprints – and how to do it. Classroom instruction can be enhanced with a river or trail clean-up fieldtrip. When combined with an ilmpact art activity, students learn how to recycle trash into something creative and give items a new life.

The ilmpact programs helps enhance math, science and art skills and is tied to state learning standards.

Get Started!

Receive permission from your school administration for the program.

Schedule time for a two-hour in-classroom presentation.

Receive permission for a fieldtrip to conduct a river or trail clean-up project. (Optional)

Obtain supplies for an art activity. (Optional)

Contact your nearest DRBA office in May or June to schedule an ilmpact presentation.

How much does it cost?

The average cost per classroom is \$500 for the in-classroom presentation. Additional cost may be needed for a fieldtrip or activity. Funding assistance may be available through DRBA.

Interpretive Activities & Learning



“Tub O’ Bugs”

Introduces students of all ages to the wonders of bugs (macroinvertebrates) that sustain our river and stream ecology.

In a world where it is increasingly challenging to get students interested in classroom lessons, DRBA offers an enriching way for both students and teachers to connect their appreciation of the natural world to academics.

DRBA helps schools restructure their curriculum so that they can meet state standards while organizing activities and multidisciplinary teaching units around environmental themes. Why environmental themes? Because children have a natural interest in the environment around them. Interested students are motivated students, and motivation is a key ingredient for academic achievement.



Water Quality Monitoring

Introduces students to water quality testing using chemical and physical properties. Students learn protocols and techniques for monitoring local streams, collecting data and learning how to help keep them healthy.

DRBA Clubs

Today’s students are tomorrow’s leaders, and DRBA seeks to involve them early in the business of using and protecting the community’s abundant natural resources. DRBA would like to pilot clubs at high schools and community colleges throughout the region. In doing so, a legion of trail blazers, environmental stewards and community protectors will be formed!



Flora and Fauna Presentations

A knowledgeable staff member educates the students on your choice from a variety of topics relating to plants and animals found in nature throughout the Dan River Basin.



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Summer Camp

Summer Camp programs introduce the neediest youth to the outdoors. Participants hike, bike, canoe and kayak – and they learn healthy skills to last a lifetime.