



classrooms are going

green

PHOTOS: COURTESY OF EVERGREEN COMMUNITY CHARTER SCHOOL AND GREEN WOODS CHARTER SCHOOL; FILM STRIP: © STOCKBYERBY/GETTY IMAGES



How Green Classrooms Are Reconnecting Kids with Nature

By Samantha Cleaver

Not everyone uses garbage as a teaching tool, but maybe we should. Melina Kuchinov, a teacher at Green Woods Charter School in Philadelphia, dumps a trash can filled with compost onto a plastic bag spread on her classroom carpet. For weeks, her first-grade students have collected and composted banana peels, fruit rinds, and vegetables. Now, they are about to learn what happens to their food after they're done with lunch. They separate dirt from composting trash with Popsicle sticks and examine the bugs that are eating their leftovers, recording their observations as they dig. After several weeks of composting, says Kuchinov, the students look forward to seeing what's happening inside the trash bin.

Most other schools, Kuchinov admits, would never let her compost in her classroom, much less examine the waste on the floor. But Green Woods Charter, an environmental education school, uses the outdoors as a classroom, even bringing it indoors sometimes. Across the country, environmental education schools and the growing movement to get children outdoors are challenging the current "indoor generation" of kids. "The interest has never been greater," says Martin LeBlanc,

Sierra Club national youth education director. "People have never been more aware of the fact that children are not getting involved with the outdoors." Even as No Child Left Behind decreases the time allotted for environmental education and field trips, research shows that children who spend time outdoors are healthier, happier, and smarter. With the global warming crisis looming, children who spend time outdoors may also be the ones who help save the planet.

THE INDOOR GENERATION

Today's children spend far more time indoors than out. The percent of adolescents who participated in daily physical education decreased from 42 percent in 1991 to 28 percent in 2003. Worse, up to 13 percent of schools do not have scheduled daily recess at all. And when students are in class, they're *not* learning about the environment. "One of the unintended consequences of NCLB," says Brian Day, executive director of the North American Association for Environmental Education (NAAEE), "was that a whole set of things, environmental education included, got pushed out of the classroom because of the initiative's overwhelming focus on reading and math."

At home, children's time is often structured. After finishing school, sports, homework, and dinner, many children opt for television, video games, or the computer over playing outside before bedtime. Children's free time, says Cheryl Charles, Ph.D., president of the Children and Nature Network, is "out of balance right now, and it's to the detriment of kids." Because of sedentary, indoor lifestyles, doctors treat

Students at Work

Environmental education pushes us to rethink what counts as a classroom.



The Perfect Outdoor Desk

At Evergreen Community Charter School, in Asheville, North Carolina, students learn to sustain nature.



Butterfly Nets = School Supplies

Community service learning and fieldwork are fundamental components of the curriculum at Hawley Environmental School in Milwaukee.



Second-Grade Entomologists

Students at Green Woods Charter School in Philadelphia discover the vast living world beneath their feet: earthworms, beetles, and slugs.

more and more children for diabetes, obesity, attention disorders, and depression. They see fewer broken bones but more repetitive stress injuries from computers and video games. Too much time indoors and children also lose a certain confidence and independence. “Children used to play outside on their own for hours at a time,” says the Sierra Club’s LeBlanc. “That just doesn’t happen anymore.”

Outdoor time can remedy many indoor-generation concerns. Playing outside is natural exercise, which reduces obesity and diabetes. Playing on fields or in woods stimulates cooperation, creativity, and problem-solving skills more than playing on asphalt. “Kids who play on naturalized schoolyards tend to have fewer antisocial interactions,” says David Sobel, director of teacher certification programs at Antioch University New England. Outdoor settings and green environments also have a calming affect on children with attention disorders; children as young as five showed a decrease in ADD symptoms when they were engaged with nature.

Getting outdoors also improves student test scores. According to a 2005 study released by the California Department of Education, children who learned in outdoor classrooms increased their science test scores by 27 percent. The gains also extend to reading and math. “If you use the environment as an integrating theme across the curriculum,” says Day, “test scores go way up.” It’s reading about the environment and then exploring it that makes a difference. “It’s not merely the act of going outdoors,” says Day, “but if you tie it back to the curriculum in an applied way, then things start to happen.”

MORE THAN HUGGING A TREE

Instead of simply teaching an appreciation of nature, today’s environmental education programs concentrate on comprehension and preservation. “We’re really working hard on understanding the natural world and bringing hard science into [the curriculum],” says Anne Vilen, curriculum specialist with Evergreen Community Charter School,

in Asheville, North Carolina. According to Vilen, Evergreen’s students do fieldwork in which they collect data and bring it back to the classroom to produce a learning product. The students also take on annual service learning projects. The combination of classwork, fieldwork, and service learning allows Evergreen’s students to move from appreciating the environment to maintaining and sustaining it.

COMBATING DOOM AND GLOOM

Children have always been interested in saving their favorite animals, but the current discussion about global warming, deforestation, species extinction, and other crises is often accompanied by fearful predictions and pictures of melting ice caps and drowning

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polar bears. This can be scary for children. Sobel has dubbed this condition *ecophobia*, a fear for the planet’s future. According to Sobel, emphasizing doom and gloom too early produces an ecophobia in children that distances them from the natural world. Instead of trying to save the planet, they shut down and retreat from nature.

The cure for ecophobia is teaching children to love the environment outside their windows. At Hawley Environmental School in Milwaukee, kindergarten students connect to the outdoor world before they learn about science and ecology. “We connect to the real world first,” says teacher Amy Fare.

Once children enjoy the outdoors and understand how the environment works, teaching them about environmental issues can empower them. Environmental education, says Day, “is not about teaching kids *what* to think, it’s about teaching them *how* to think so they can make their own decisions.”

cover story

Environmental crises are crucial topics to discuss, and children are able to have those conversations if teachers present the issues rationally. “Our students know about global warming,” says Andrew Slater, head of The Logan School, an environmental education school in Denver.

Learning about the environment out-of-doors indirectly teaches children that they can and should save the environment. Whatever Green Woods’ students do in the future, says Jean Wallace, the school’s principal, “they will have a deep understanding of how the environment works,” including how their choices impact the environment. After all, says Wallace, “it’s difficult to conserve and protect what you don’t understand.”

TEACHING KIDS OUTDOORS

As we realize the benefits of spending time outdoors, teaching outside in outdoor classrooms and on field trips

is gaining popularity. After all, says the Children and Nature Network’s Charles, there isn’t any topic that we can’t teach outdoors. Cathy Bache, a teacher at the Secret Garden nursery school in Scotland, has taken this to heart. The school is completely outdoors, and the

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preschool students spend every day, all day, rain or shine, playing in the school’s gardens, streams, and woods.

Of course, you don’t have to spend all year outside to reap benefits.

Green Woods Charter School uses the Schuylkill Center for Environmental

Education’s 350 acres of forests and miles of trails to teach students about the pond, field, and forest ecosystems before branching out into watersheds, life sciences, and physical sciences. The environmental-focused curriculum, says Wallace, allows the school to teach in “what we believe as educators is the best way for children to learn—through multisensory experiences.” All that time outdoors turns Green Woods’ students into remarkable nature observers who can recognize patterns and pick out the smallest of details.

Troy Schlegel, a fifth-grade teacher at Oakwood Environmental Education Charter School in Oshkosh, Wisconsin, uses the outdoors as a classroom as much as possible. His students compose poems in a gazebo and learn about longitude and latitude using GPS devices on the school grounds. Each student also chooses a tree on the campus to care for and write about throughout the

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year. This helps them with their writing. “They focus on what they’re seeing,” says Schlegel, “and they write more and use a larger vocabulary than if they were sitting in a classroom.”

Using the outdoors as a classroom also capitalizes on children’s natural curiosity and enthusiasm. “Kids have a natural love for plants and animals,” says Sarah Taylor, principal of Sunnyside Environmental School in Portland, Oregon. “Teaching students outdoors meets their kinesthetic needs to be outside.”

Learning outdoors, even without fields, woods, or trails, has its benefits. An outdoor classroom doesn’t have to be elaborate, says Charles. It can be as simple as a small, square space with rocks, water, and plants. A 15-minute neighborhood walk or play break on natural surfaces can calm antsy minds and increase both children’s ability to concentrate and their creativity.

LEAVE NO CHILD INSIDE

In the future, environmental education and time outdoors may be part of every student’s school day. During this year’s NCLB reauthorization, Congress has added the Leave No Child Inside Act. If passed, this Act will change how schools approach environmental education. “It will start the process of giving more flexibility to teachers to get kids learning outside,” says the Sierra Club’s LeBlanc. It will provide time, training, and funds for environmental education in public schools. With Leave No Child Inside, says the NAAEE’s Day, environmental literacy will be an important school subject and will be integrated across the curriculum. In the meantime, our students can benefit from the smallest environmental lessons—growing school gardens, creating outdoor spaces, or building compost piles—where they can see life happen outside of the classroom. □

Why Get Out?

Research shows marked benefits for children who spend time with nature.

Less Stress Spending time in the natural environment, or even having a window on nature, helps reduce stress and improve psychological well-being.

Better Health Children in outdoor classrooms show improvement in health and self-confidence.

More Cooperation Children who play in natural settings are more cooperative and creative than those who play on asphalt playgrounds.

Learning Gains Schools that use outdoor classrooms show gains in students’ critical thinking, decision-making, standardized test scores, and student grade point averages.

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