Great Lakes
Great Education

Inside:
Connecting to new K-12 learning standards
Service learning with Adopt-a-Beach™
Stories from Chicago, Cleveland, Detroit, Milwaukee and Racine

Great Lakes in My World
Curriculum makes positive impact on students, teachers

Photo: Randy Sorenson

Alliance for the Great Lakes
Ensuring a Living Resource for all Generations
‘A really good fit’

Those are the words a teacher used to describe how our *Great Lakes in My World* curriculum connects with students, while also providing engaging ways to teach concepts required by both state and new national learning standards.

I view her words as high praise – and affirmation of our efforts at the Alliance for the Great Lakes to provide educational outreach and resources that support our mission to protect and restore the Great Lakes.

And we believe that our *Great Lakes in My World* curriculum can be a really good fit for more teachers throughout the region.

To that end, I invite you to learn more about *Great Lakes in My World*. This critically acclaimed K-8 and 9-12 resource has proven to be a valuable teaching tool, encouraging active, place-based learning. Most importantly, it ignites the interest and imagination of the coming generation of scientists, engineers, educators, parents, problem-solvers . . . and more.

We hope you find this report useful and inspiring, and we’d love to hear your thoughts or answer any questions about how you can get involved. Contact our education coordinator Katie Larson at education@greatlakes.org.

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Joel Brammeier
President &
CEO

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Contributing writer: Scott Westcott
Design: Claudia Ruge, INSITUM
Right Place, Right Time

New Next Generation Science Standards give renewed relevance to place-based education

Don’t tell Stephanie Madziar that the visits her 7th grade students make to the shores of Lake Michigan are “just a field trip.”

For many of those students from Perspectives Charter Schools, it’s their first journey from their homes in urban Chicago to the nearby lake. The visit is not only fun and eye-opening – it also adds real relevance to the science concepts students have been learning through the Alliance for the Great Lakes’ curriculum, *Great Lakes in My World*.

“It’s kind of amazing to see the kids on the beach because many of them have never even been there,” Madziar says. “You can see them making connections to what they’ve been learning, and start really thinking about why science and the environment are so important.”

The *Great Lakes in My World* curriculum, including Adopt-a-Beach™ service learning visits, embody a place-based education approach that is gaining renewed relevance with the release in spring 2013 of Next Generation Science Standards created by The National Research Council, the National Science Teachers Association, and the American Association for the Advancement of Science. Place-based education uses the local community and its natural setting as the starting point for teaching and learning while emphasizing hands-on, inquiry-based and real-world experiences.

Adopt-a-Beach™, for instance, is much more than a beach sweep. Teams conduct litter removal and monitoring as well as complete a beach health assessment that includes science-based observation and testing. The teams collect information and enter it into the Alliance’s Adopt-a-Beach™ online system.

For more information about Perspectives Charter School, see “New Perspective” on page 15.

To order *Great Lakes in My World*, see back cover.
where data are used to educate the public, share with local beach authorities and improve beaches.

Adopt-a-Beach™ is just one of many activities that allows students engaged with the Great Lakes in My World curriculum to literally get their feet wet in real-world science.

Now in its 4th printing and in the hands of 2,750 educators, the curriculum reaches more than 60,000 students around the region, and is being successfully integrated into three school districts, with more on the way.

Up to the standards

The new science standards - now being reviewed and implemented in school districts in several states - emphasize essential 21st century skills focused on thinking critically, solving problems and working collaboratively – skills that many educators believe are best learned through hands-on, immersive activities that connect students to the real world outside of their classrooms.

“Students get excited by the fact that they are not just cleaning up a beach, but also collecting data that can be used to make decisions about beach management,” says Terri Klaus, an educator in Racine, Wis. who has been involved with Adopt-a-Beach™ with local 4th and 5th graders. “They start to make connections that their actions can make a positive difference.”

Real-world relevance

Indeed, data from Adopt-a-Beach™ is collected, recorded and archived by the Alliance dating back 12 years. The research can have real-world relevance. In one instance, data reports from beach cleanups bolstered the case of proponents seeking a smoking ban on Chicago beaches. The ban ultimately was approved by Chicago lawmakers and has led to awareness about the leading source of beach litter.

“Students get excited by the fact that they are not just cleaning up a beach, but also collecting data that can be used to make decisions about beach management,” says Terri Klaus, an educator in Racine, Wis. who has been involved with Adopt-a-Beach™ with local 4th and 5th graders. “They start to make connections that their actions can make a positive difference.”
Like many teachers, Klaus’s own awareness was raised at an Alliance workshop for educators. “It really opened my eyes to what a remarkable resource we have in Lake Michigan, and all of the Great Lakes,” she says.

For more information about Adopt-a-Beach™ and Terri Klaus’s experience, see “Time Well Spent” on page 10.

Training for teachers

Alliance staffers sometimes go on beach cleanups or visit classrooms, but their primary educational focus is training teachers and providing curriculum and resources to support those teachers in their place-based education efforts.

The trainings are grant-funded through the Alliance, which allows school districts to offer the workshops to teachers at low cost. Various approaches to the training range from workshops that can run over several days to Web-based sessions in which teachers can participate virtually as time allows.

“We have a flexible model of professional development and training depending on the specific needs of the teachers and students,” says Alliance education coordinator Katie Larson. “If possible, we like to get teachers out to the shoreline where they can participate in some of the lessons they will be teaching.”

Actual lessons modeled during the training provide teachers with a clearer understanding of how Great Lakes in My World might integrate with current curriculum. For instance, one activity called “Working Wetlands” calls for creating and observing models that demonstrate how wetlands clean water through sedimentation, filtration and absorption.

“In the training when teachers become the students it gives them a different perspective,” Larson says. “You start to see the wheels turn, as they realize they can use a variety of the lessons when teaching ecology or biology.”

Larson says the fact that the Great Lakes in My World curriculum approach encourages many of the essential skills and knowledge outlined in Next Generation Science Standards should help make a compelling case for more teacher training and districts further integrating the curriculum into their programming.

“The curriculum aligns with the standards, and does so in a meaningful and relevant manner,” Larson says. “In many ways it is ahead of the curve when it comes to getting students to really think and develop creative and analytical skills.”
Chicago:

Place-Based Connections

Chicago students become active learners, environmental stewards through hands-on approach to science


That trend is part of the reason why curriculum coordinators in Chicago Public Schools are committed to incorporating place-based curriculum such as Great Lakes in My World into their schools. “There is a lot of research showing that we are losing our connection to nature,” says Jon Schmidt, manager of Democracy Education and Student Leadership for Chicago Public Schools (CPS). “When kids have access to nature, there are a lot of positive benefits and outcomes. It’s calming, it helps develop a connection to place and it can be the first step to developing a conservation ethic.”

Chicago Public Schools has a long-standing relationship with the Alliance for the Great Lakes. Many teachers have gone through trainings related to the Great Lakes in My World curriculum, and many schools have been active participants in the Adopt-a-Beach™ program. Just this year, Chicago Public Schools asked the Alliance to develop a curriculum specific to the Calumet region as part of the Calumet Is My Back Yard (CIMBY) program. This new curriculum, Great Lakes in My World 9-12: Calumet, is already being integrated into more than 10 CPS schools. Schmidt says the lessons and activities in Great Lakes in My World and the new Great Lakes in My World 9-12: Calumet offer teachers an opportunity to expose students to the wonders of Lake Michigan – and then engage those students in more active and meaningful learning.

“Sometimes science curriculum can suck the joy out of learning,” Schmidt says. “Active learning, in which students are engaged in a hands-on way, mitigates against the test prep culture and creates more thoughtful and critical thinkers.”
Case in point - students from Von Steuben High School became so committed to their role as stewards of Foster Avenue Beach in Chicago that many returned after graduating from high school to participate in beach cleanups and monitor water quality.

“A group of kids there developed a deep and abiding ownership of Foster Avenue Beach,” Schmidt says. “It really is amazing, and that beach is now in good shape and one of the more popular places for people to go.”

Schmidt says the potential exists for deeper integration of the *Great Lakes in My World* curriculum into the district’s science curriculum to align with new Next Generation Science Standards, which call for more problem solving and collaboration skills.

“I’m optimistic about the new set of standards and any good service project, such as Adopt-a-Beach™, which leads students toward meeting those standards that are focused on problem solving, observing and taking action,” Schmidt says. “This curriculum focuses on students conducting research, evaluating problems and then developing solutions. You have a much better chance to engage students when you approach education that way.”

For more information on the Next Generation Science Standards, see “Right Place, Right Time” on page 3.
Kirsten Mahovlich need only take some Cleveland Metropolitan School District students to the shores of Lake Erie to be reminded of the value of place-based learning. Once there, many students are convinced they are at a salt-water lake teeming with sharks.

“Cleveland sits on the coast of Lake Erie, but if you polled students I’d say 70 percent would tell you the lake is saltwater,” says Mahovlich, a science flexible content expert with the Cleveland Metropolitan School District.

“They simply haven’t had a direct connection to the lake. That’s why we are such strong advocates for place-based learning. In order to make learning relevant we need to get them connected to the real world.”

Mahovlich and her district colleagues are in the early stages of making more of those connections with the help of the Alliance for the Great Lakes and other environmental partners in Cleveland. The process is a slow one with the district of more than 42,000 students facing budget challenges and the difficulties that comes with implementing any significant change.

Yet, Mahovlich is taking a methodical approach. The Alliance has conducted several trainings to get teachers more comfortable with place-based education and the Great Lakes in My World curriculum. So far, elementary, middle, and high school students from around the district are also getting involved at varying levels with Adopt-a-Beach” service learning at Edgewater Beach.

Meanwhile, Mahovlich is hoping to tap into the enthusiasm and support being generated through community initiatives known as “GreenCityBlueLake” and “Sustainable Cleveland by 2019.”

“There has been a huge movement in Cleveland to get our lakefront cleaned up and look for ways we can become a more sustainable community,” says Mahovlich.
“I think we can benefit from some of the momentum being generated by that effort,” she says.

Mahovlich’s goal is full and formal integration of Great Lakes in My World and other place-based curricula into Cleveland’s K-12 programming. And she believes that the curriculum, which fully integrates hands-on learning with more traditional classroom work, is already changing the perception about activities such as beach visits. “By participating in Adopt-a-Beach”, students start thinking more deeply and critically about what is happening around them. You see more ownership and engagement, and a willingness to do research and analyze the data that was gathered from the experience,” says Mahovlich.

“`Field trip’ can be a bad word in our district, but what we are talking about here is active learning that relates to science and our environment,” says Mahovlich.
Time Well Spent

Adopt-a-Beach™ provides Great Lakes service learning opportunities

It took the better part of a half century, but Terri Klaus is now confident that it’s safe to go in the water again.

A few years ago, Klaus attended an Alliance for the Great Lakes workshop introducing the Great Lakes in My World curriculum to Racine, Wis. educators. There, Klaus was surprised to learn how much Lake Michigan’s water and beach quality had improved. Admittedly, she had not paid close attention for a long time — her most lasting childhood memory of Lake Michigan was being told a beach was closed to swimming due to pollution.

For Klaus, her increasing awareness spurred her to action, including leading efforts to get Racine students involved with the Adopt-a-Beach™ service learning program. While she has since retired from teaching, Klaus has attended many of the beach cleanups in recent years.

Klaus is one of many educators who have seen the potential of Adopt-a-Beach™ to deepen student and teacher understanding and awareness about the Great Lakes ecosystem. Adopt-a-Beach™ is a service learning program supported by the Great Lakes in My World curriculum. Students learn about the environment and help their community while analyzing water quality, investigating beach health, removing litter and debris and entering their findings into an online database. This real world data can then be analyzed by students as a scientific study or action project.
Chmielewski says her perception of Lake Michigan has come full circle through her involvement with the Alliance and Adopt-a-Beach™.

“I have now taken all four of my grandchildren to North Beach to swim,” Klaus says. “It took 50 years, but I am comfortable with the quality of water and beach to bring my grandchildren there.”

Although she recently retired from full-time teaching, Chmielewski is confident the experience will have a lasting impact – both on the environment and the students involved.

Over the years, four of the students received $1,000 scholarships from a conservation organization related to their efforts with Adopt-a-Beach™. Some students were so committed to the cause that they returned to participate in the beach sweeps even after they had gone off to college.

“I have to believe that when you get students involved in community outreach at a younger age, it becomes integral in their lives as they develop and mature.”

“You hear people often say kids don’t care. After working with these kids on Adopt-a-Beach™, I beg to differ,” Chmielewski says.
Sometimes children have a knack for getting at the heart of an issue. Consider, for instance, this response from a 4th-grader on a recent survey about the *Great Lakes in My World* curriculum.

“I loved learning about what hurts, so we can prevent it from happening.”

It’s a statement that shows a child’s developing awareness of the environmental challenges facing the Great Lakes, as well as the role people play in addressing those challenges.

Actively engaging students in the study of science while raising their awareness about how human actions can both help or hurt our Great Lakes environment is at the core of the Alliance for the Great Lakes’ mission.

To that end, the Alliance recently commissioned a student and teacher survey aimed at gauging the impact and potential of its placed-based curriculum, *Great Lakes in My World*, says Katie Larson, education coordinator for the Alliance. The survey, completed by more than 100 teachers and over 300 students, was conducted by PEER Associates, an independent firm that specializes in evaluating and researching existing programs as well as collaborating on the design and creation of new programs.

Gaining insights

“We thought it was important to work with an outside evaluator as a way to get a more robust and objective evaluation,” Larson says. “The survey provides us with insights into what we’re doing well, and what we should work on improving.”

Specifically, the educator survey assessed how teachers are using the *Great Lakes in My World* curriculum, and how it affected their instructional practices. The educator and student surveys also measured how the curriculum affected student outcomes such as their environmental attitudes, content knowledge of the Great Lakes, commitment to community, academic engagement, and their degree of comfort being outdoors.

The results show that...

- Students demonstrate improved science skills in multiple areas.

Growing Science Skills

More than 100 educators from around the Great Lakes region report their students show improved science skills after engaging in *Great Lakes in My World* lesson plans and/or Adopt-a-Beach™.
• The curriculum impacts teachers’ instructional practice by having real-world relevance, helping them teach science standards effectively, and increasing their confidence in teaching.

• Educators enjoy using the curriculum, finding it both enhances their lesson plans while also benefitting students through active learning.

• 27% of educators who took the survey have offered professional development to their colleagues, reaching an average of 18 additional educators each with the Great Lakes in My World curriculum.

• Both teachers and students reported positive changes in their attitudes about the environment after being exposed to the curriculum. The results indicated that students learned about many issues involving the Great Lakes, including the threat of pollution and the role the Great Lakes play as a source of freshwater and a habitat for plant and animal life. The curriculum also piqued students’ interest in learning more about the Great Lakes, with the largest number of respondents saying they wanted to learn more about how to clean up the Great Lakes.

Written responses by teachers reinforced that students had developed considerably deeper understanding of the Great Lakes and their importance to the region after working with the Great Lakes in My World curriculum.

“They have more in-depth concepts of the water cycle and how our local water sources interact with it,” wrote one teacher.

And there was this from another teacher: “Most [students] didn’t even know the name of the river or lake. Now they can describe the water cycle and why it is important.”

This is good news for Great Lakes in My World K-8, which is eight years old and in the hands of 2,750 educators and reaching upwards of 60,000 students around the region on an annual basis. Now in its fourth printing - and newly expanded in 2012 to include grades 9-12 - Great Lakes in My World is currently being used with school districts’ seals of approval in three cities, with more on the way.

Elevating Environmental Attitudes

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After integrating Great Lakes in My World and/or Adopt-a-Beach™, educators report their students have an increased appreciation of and connection to the Great Lakes.
Responses to the educator survey show that many educators are sharing the curriculum with colleagues - a trend that supports the Alliance’s core model of focusing its educational efforts on offering teachers training and professional development so the curriculum can be integrated into their planning and lessons. This approach is more cost-efficient and effective than “one-and-done” visits by environmental educators that might not have as lasting an impact on students.

The survey also shows that Great Lakes in My World helps teachers become more comfortable with bringing their students outdoors and more confident about teaching outside a traditional classroom setting.

“This has given me an outlet to bring the world into my classroom in a very direct and meaningful way,” shared one teacher in the survey. “It’s not just part of the curriculum but also a way of interacting with the earth and helping solve problems with direct action.”

Added another: “Great Lakes in My World has been a valuable resource. It provides an outdoor laboratory in our back yard.”

Addressing challenges

Indeed, teachers are looking for ways to integrate the Great Lakes into their curricula more seamlessly. During interviews with educators, it was reported that:

- Because the Great Lakes are often not directly referenced in some curriculum study guides, it can prove challenging to integrate some of the Great Lakes in My World activities and lessons into existing plans. In response, the Alliance is working with teachers and administrators to tailor curriculum and target resources to meet school-specific needs. For instance, in Chicago the Alliance partnered with The Field Museum and Chicago Public Schools to develop Great Lakes in My World 9-12: Calumet for the Calumet Is My Back Yard program, which provides environmental education and activities related to the Calumet region of the Lake Michigan watershed.

- Many teachers find creative ways to present Great Lakes in My World activities to students, but there is not always full awareness at the administrative level of the opportunities to integrate the curriculum and Adopt-a-Beach™ into a school’s programming. The Alliance has been reaching out to administrators and curriculum coordinators to make plans to integrate Great Lakes in My World and Adopt-a-Beach™ district wide.

- With school budgets getting tighter, funding is an ongoing challenge. In many districts, it’s particularly difficult to fund bus transportation for outdoor visits, which are an important part of the Great Lakes in My World curriculum. To address this issue, the Alliance has been including bus funding in more grant applications. “We are finding that having funding for transportation is key to getting some groups of teachers and students out in the local environment,” Larson says.

- The survey responses clearly indicate that as a result of Great Lakes in My World and Adopt-a-Beach™, students are more interested in the natural world around them, and have a stronger sense of responsibility for improving the environment.

“My students and I are more conscious of what we put down the drain and how we use our local water,” wrote one teacher.

Meanwhile, another surveyed student put it like this: “I like to learn how I can help keep the lakes clean and what organisms inhabit them. With more knowledge of them, I can do more to help the Great Lakes.”
When asked about the partnership between Belle Isle Nature Zoo and the Alliance for the Great Lakes, Mike Reed references those television commercials that end with one word: Priceless.

“It’s one of the most productive partnerships that I can think of,” says Reed, the manager of Belle Isle Nature Zoo. Belle Isle occupies 983 acres in Detroit that make up the nation’s largest island urban park.

“Working together, the impact we have made on teachers, students and the community really is priceless. It’s immeasurable.”

What has made the partnership so effective, Reed says, is that it blends place-based environmental education with active stewardship. In particular, that stewardship includes ongoing restoration projects aimed at improving habitat with native plants.

Restoration revolution

What’s happening at Belle Isle is but one example of restoration work that is occurring throughout the Great Lakes region. Restoration is a central focus of the Alliance for the Great Lakes’ commitment to educate, raise awareness, advocate for change, and make tangible environmental progress.

“Teaching children science about the Great Lakes is step one. When you can inspire students to restore the lakes on the ground, that teaching becomes exponentially more valuable,” says Joel Brammeier, President and CEO for the Alliance of the Great Lakes.

“We are not trying to turn back the clock to the pristine lakes of the 18th century – we would not succeed. But we can make real progress toward rebuilding and restoring what we lost over the last century,” says Joel Brammeier, President and CEO for the Alliance of the Great Lakes.

Indeed, over the last four years, $1.4 billion has been allocated through the federal Great Lakes Restoration Initiative aimed at improving water quality and habitat. Brammeier views the restoration movement as the “perfect intersection between doing the right thing and creating real economic value.” For instance, many of the restoration projects benefit the Great Lakes fishery, which contributes more than $4.5 billion in economic value to the region annually.
Helping fish, restoring shorelines

Belle Isle is an ideal microcosm of what is occurring throughout the Great Lakes. The Alliance has partnered with Belle Isle on an innovative education and restoration project that includes restoring 72 linear feet of shoreline and coastal wetland along North Pier on Belle Isle. This coastal area is situated downriver from a unique offshore aquatic habitat within the Detroit River known as Scotts Middle Grounds, which provides habitat for adult fish. The project includes removing 375 tons of debris and the planting of native vegetation on the site and will engage community partners and volunteers, including students and teachers, in a litter reduction campaign, shoreline cleanups and a monofilament fishing line recycling program.

The Alliance is focused on further integrating education, stewardship and restoration efforts, says education coordinator Katie Larson. For instance, restoration projects are enhanced when teachers and students use the Great Lakes in My World curriculum or participate in Adopt-a-Beach” service learning.

At Belle Isle, Reed and his staff use the Great Lakes in My World curriculum on a regular basis in training workshops with teachers and with student groups. Of particular relevance are interactive lessons about the food web and understanding the dynamics of a watershed, he says. “The reason we use the curriculum is that if the kids are actively involved, then they will never forget it,” Reed says. “If they just sat and read from a textbook, it could well be lost.”

Reed says he often relates the story of meeting the father of a 12-year-old boy who had visited Belle Isle and worked with the Great Lakes in My World curriculum. The father came up to Reed, feigning that he was angry and upset. “He said, because of you I can’t wash my car in the driveway, we have a rain barrel beside the house, and we had to inspect the sewer system,” Reed recalls the man saying. “Then he stuck his hand out, and said, thank you!”

“Obviously, what his son had learned out here went home with him, and it made a difference. It raised awareness.”

Wiser choices

Moving forward, Reed says Belle Isle will continue to look for new and lasting ways to partner with the Alliance – to improve the environment, and to continue raising awareness at a place he calls “the perfect outdoor classroom.”

“You hear a lot about sustainability, but you can’t sustain something if no one understands it,” Reed says.

“In the past it seems often a project would be completed, there would be a ribbon cutting, and that was it. With the Alliance, we work together to be a conduit to the community and educators to make sure the great work being done out here is not lost.”

Meanwhile, Alliance President Joel Brammeier hopes the efforts create a generation of students with a keen awareness of the balance between the environment and human activities, ranging from recreation to economic development.

“Every choice we make involving the environment and the economy in the Great Lakes has a water component to it,” Brammeier says. “Based on those choices, we are either going to get cleaner water or dirtier water. The success and quality of life in our region is dependent on the Great Lakes being a healthy ecosystem.”
Middle School teacher Joan Ticha thinks Adopt-a-Beach™ and the Great Lakes in My World curriculum hit a trifecta.

“It’s perfect,” says Ticha, who teaches at Mitchell Middle School in the Racine Unified School District.

“It meets the standards, it meets my curriculum and it teaches something the students genuinely care about.”

Ticha is one of several science teachers in Racine that have embraced the Great Lakes in My World curriculum as a way to actively engage their students, who come from a wide range of backgrounds. Currently, every 4th grader in the district visits the Root River, a tributary of Lake Michigan; 7th graders go on a beach trip. The trips are integrated with ongoing lessons and activities focused on the local watershed and the Great Lakes ecosystem.

“It’s a really good fit with our curriculum,” says John Surendonk, elementary science coordinator for Racine Unified School District.

“Most traditional science programs talk about oceans, and oceans are foreign concepts to many kids in the Midwest. Many of those same concepts adapt well to the Great Lakes, and it becomes more concrete to students. It just makes more sense.”

Indeed, the Alliance for the Great Lakes curriculum, Great Lakes in My World, emphasizes a place-based approach that underscores the importance of using the local community and environment as an open-air classroom where students can experience hands-on learning.
“The value lies in students being able to see how various concepts they learn in the classroom come to life in the local environment,” says Surendonk. “It starts to give them a deeper understanding of the relevance of what they are learning.”

Todd Brennan, Wisconsin outreach coordinator with the Alliance, has worked closely with Racine Unified School District. About 60 teachers in the district have received training, and Brennan is working to find new ways to integrate the curriculum more deeply into the schools’ science programming. Teachers continue to share positive feedback about the curriculum.

“Teachers love it,” Surendonk says. “It’s a resource that helps them make learning more real and accessible for students. And the curriculum is flexible enough that teachers can find ways to challenge students who really get into it and want to do more.”

Indeed, teacher Joan Ticha says the Great Lakes in My World approach got students more engaged than usual - even before heading out to the beach.

“The students loved practicing with the field tools in the classroom,” Ticha says. “Then they really got excited when they had the chance to show off their newfound skills in the real world at the beach.”
At Perspectives Charter Schools in Chicago, the *Great Lakes in My World* curriculum has helped bring science to life for students. “I think it has huge value,” says Stephanie Madziar, a 7th grade teacher in the school system, which serves nearly 2,300 students in grades six through twelve.

“It gives my students a hands-on and emotional connection to nature and science. They see for themselves the importance of protecting the environment.”

The Alliance for the Great Lakes has been working with Perspectives for the past three years, during which time teachers have steadily integrated the lessons into their science curriculum. Teachers have found that many of these students have had very limited exposure to Lake Michigan, despite its close proximity to their homes and neighborhoods.

“Some of the students have never even seen or been to Lake Michigan.” Madziar says.

The partnership between the Alliance and the school has had the added benefit of the support of a committed philanthropist. Already a supporter of Perspectives Charter Schools and the Alliance, Anne Searle Bent says it was “a moment of great serendipity” when she learned the Alliance worked with the school. A strong believer in the Alliance’s mission, she asked that her donations be directed toward educational programming such as the *Great Lakes in My World* curriculum taught at Perspectives.

Bent recently had the opportunity to see first-hand how the curriculum connects with students. She visited the school where students were involved in a hands-on activity about the Great Lakes food chain. In the lesson called “Tangled Web,” a ball of yarn is passed among students to represent the complex interconnectedness of the Great Lakes ecosystem.

“The students were completely engaged because they were able to actually visualize these connections by using the yarn to represent how an organism as small as a zebra mussel might affect other aquatic life,” Bent says.
“The way the Alliance's curriculum works - the way it interrelates the flora, fauna, water and humans - is really very effective.”

Katie Larson, education coordinator for the Alliance, ventured afield with Perspectives students last year. In addition to Adopt-a-Beach™ service learning and lesson plans from Great Lakes in My World, the field trips included a habitat assessment and native planting. These newer outdoor opportunities are aimed at getting schools involved in coastal stewardship.

“Those were my favorite days of work all year,” Larson says. “It’s very powerful to see students who show up with limited knowledge or exposure to the Great Lakes who, at first don’t even want to sit in the sand and, an hour later, are taking water samples or holding a toad in their hands.

“Knowing that the teachers will follow up that experience with related lesson plans and time for reflection and active learning is affirmation of what we are trying to achieve with our place-based curriculum,” Larson added.

Teacher Stephanie Madziar says this school year she’s planning for even more opportunities to integrate Great Lakes in My World into the school’s science curriculum.

“I like the format and approach. We have to stick to a content map, but I know there are lessons from Great Lakes in My World that align with that map and make the learning experience more interactive and fun.”
Milwaukee:

Part of the Program

Great Lakes in My World is integrated into Milwaukee Public Schools pacing guide

At the beginning of the school year, Paula Holman’s students take home what she calls “the blanket permission slip.”

After being signed by a parent, those slips end up being the students’ all-access ticket to the shores of Lake Michigan. The 4th, 5th and 6th graders at Milwaukee Public Schools’ Fernwood Montessori School know that just about any day can include an impromptu field trip to learn and explore at the nearby lake.

“Lake Michigan offers the perfect opportunity for hands-on learning,” says Holman, an educator with 25 years experience.

“If there was a big storm the night before or it’s a windy day, we go down to the beach to see what’s happening. I sense there is a lot of ownership developing now – and I have never had a student say, ‘nah, I don’t want to go to the lake.’”

The on-site visits are interwoven with lessons and activities provided by the Great Lakes in My World curriculum offered by the Alliance for the Great Lakes. Milwaukee Public Schools recently took the step of formally integrating the curriculum into the district’s “pacing guides,” which are based on new Next Generation Science Standards. Inclusion in the pacing guides allows for more seamless integration of Great Lakes in My World into the established science curriculum.

“We have a good foundation to work from with Milwaukee Public Schools,” says Todd Brennan, Wisconsin outreach coordinator for the Alliance. “The curriculum has become part of an integrated approach to science; it isn’t viewed as an extracurricular activity or eating into other instruction time.” Indeed, Holman says inclusion in the pacing guides is a big plus for teachers.

“Using this curriculum, I feel like the students are really engaged in learning, and we can hook it directly to the requirements of what we need to get done,” Holman says. “I just love the curriculum, and I’d encourage other teachers to use it.”
“I’ve been teaching for years, and it is great to get a fresh perspective from other teachers about how they are using resources like Great Lakes in My World. The activities are easy to do and don’t require a lot of supplies. I think they are very teacher-friendly — and the kids love it,” says Katie Porter.

Adding to the ease of use is the fact that an electronic version of *Great Lakes in My World* has been included in the district’s online portal. Teachers can quickly download or print a lesson plan.

Katie Porter is another Milwaukee teacher who has been involved with Adopt-a-Beach™ service learning visits, and recently attended a training session focused on using *Great Lakes in My World*. There, the veteran 7th grade teacher from Wedgewood Park Middle School got to connect with other teachers about ways they are using the curriculum.
About

Alliance for the Great Lakes

Alliance for the Great Lakes serves as the voice of the 40 million people who rely on Great Lakes water for drinking, recreation and commerce. Formed in 1970, it is the oldest independent Great Lakes protection organization in North America. Its mission is to conserve and restore the world’s largest freshwater resource using policy, education and local efforts, ensuring a healthy Great Lakes and clean water for generations of people and wildlife. Its headquarters are in Chicago, with offices in Buffalo, Cleveland, Detroit, Grand Haven and Milwaukee.

Chicago
17 N. State Street, Suite 1390
Chicago, Illinois 60602
T: (312) 939-0838 • F: (312) 939-2708
education@greatlakes.org

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