



## Heather Sauer

**Science Teacher; Environmental Club Advisor; Green Team Member**  
**Bradley Beach Elementary School**  
Monmouth County, New Jersey

For 16 years, Heather Sauer has inspired students through science education, including the past 11 years at [Bradley Beach Elementary School](#), where she is the sole science teacher for grades 5–8. In addition to teaching, she advises the school’s environmental club, serves as yearbook advisor, and is an active member of the green team. Widely recognized by colleagues and students for her dedication and innovative spirit, Heather is a sustainability leader who thrives on collaboration and brings curiosity and creativity to everything she teaches.



“Science is everywhere; it affects every person,” Heather explained. “The kids are the heart of our school. We are a small but mighty community, and together we can make a real difference, that’s the essence of sustainability.” At Bradley Beach Elementary School, this ethos is reflected in a culture that promotes health, activity, and environmental awareness, mirroring the values of its beachside community.

Heather, alongside her co-leaders, Ashley Fox and Marissa Vitale, brings sustainability to life through the Sustainable Jersey for Schools program. Bradley Beach Elementary Environmental Club also has an impact on sustainability efforts, where students take part in hands-on projects that connect them to their community and natural environment. From planting dunes to protect the coastline, to learning about native trees with the [Bradley Beach Shade Tree Commission](#), the club provides authentic opportunities to engage with local experts and ecosystems. Students have explored sustainable entrepreneurship through workshops in ceramics and candle making with a local business and even studied the [Maritime Forest](#) with the help of Captain Alek Modjeski, a coastal ecologist. These experiences allow students to see science in action, build stewardship skills, and understand how their efforts make a tangible difference in protecting their environment.

### Building a Sustainable School Community

Bradley Beach Elementary School is a single pre-K–8 school district serving about 200 students. Despite its small size, the school has achieved impressive sustainability success. Under the leadership of Board of Education Vice President Bridget Devane, who introduced the Sustainable Jersey for Schools program to the school, and Superintendent Dr. Michael Heidelberg, Heather helped form the school’s green team alongside fellow educators and partners Ashley Fox, Amanda Bialek, and Marissa Vitale.



Their collaboration, supported by parents, teachers, staff, administrators, and the Board of Education, has been key to Bradley Beach Elementary achieving [Sustainable Jersey for Schools](#) silver-level certification. The school has also received two \$2,000 [Sustainable Jersey grants](#)—one funded by the New Jersey Education Association (NJEA) to

support active health initiatives in the classroom, and another funded by The PSEG Foundation to enhance the school's outdoor garden. The Sustainable Jersey grant cycle, funded by [NJEA](#), is currently accepting \$2,000 and \$10,000 school grant applications for sustainability projects through October 31, 2025.

## Breakfast After the Bell: Nourishing Students for Success

One of Bradley Beach Elementary School's important sustainability initiatives is Breakfast After the Bell, which ensures every student has access to a nutritious breakfast each morning. Available to all students from pre-K–8, the program provides options such as fresh fruit, waffles, muffins, stuffed bagel sticks, and allergy-sensitive alternatives. Breakfast is integrated into the school day by allowing students to eat during Morning Meeting, which also includes social-emotional learning (SEL) activities.

Heather emphasized the program's significance: "It's crucial for students to eat breakfast so they can stay attentive and productive. This program provides food to the students so they can eat comfortably in the classroom during the morning meeting." The initiative not only supports student health and academic performance but also earned the school 20 Sustainable Jersey certification points for completing the action: [Breakfast After the Bell](#).

## Aquaponics: Hands-On Learning in Action

In September 2023, Heather and the environmental club introduced an aquaponics system at the school, funded by a grant and located in the kindergarten/first-grade hallway where all students can enjoy and learn from it. The system uses the waste produced by the fish to supply nutrients for the plants to grow hydroponically, which in turn purifies the water. The kale and lettuce are harvested by students and shared with families, staff, and the entire school community through school lunches.



The project was supported by [Drop the Beet Farms](#), which provided education about aquaponics and sustainability. Students took a lead role by interviewing Heather and the Drop the Beet Farms liaison, creating a [podcast](#), writing [articles](#) for the school newspaper, and designing [flyers and brochures](#) to explain the system to others. Heather views the aquaponics project as a transformative teaching tool. "It provides a calming place for students to visit to watch the fish and the plants, while learning about how an aquaponics systems works." This project, along with their outdoor garden, earned the school 20 Sustainable Jersey certification points for completing the action: [School Gardens](#).

## Reducing Energy Use and Cutting Costs

Bradley Beach Elementary has invested in building upgrades and energy management systems to lower consumption and operate more efficiently. An energy audit, conducted through the Local Government Energy Audit Program (LGEA), consisted of an eight-hour walkthrough of the entire 54,000-square-foot elementary school and modular building. In part, based on the audit's recommendations, the school installed two new HVAC systems and more than 80 LED lights, significantly improving energy efficiency and lowering utility costs. The district also participated in [Sustainable Jersey's Energy Efficiency Technical Assistance for School Facilities](#), which established a process for long-term energy tracking and management using the EPA's Energy Star Portfolio Manager. By benchmarking its performance against similar buildings from across the country and analyzing 12 months of utility bills, the school established a baseline for its energy use. This systematic tracking enables the district to make informed decisions about facility operations—reducing energy use, lowering emissions, and cutting costs—while modeling environmental stewardship for the community. Today, energy management is a core part of the school's long-term sustainability plan. This work earned the school 30 Sustainable Jersey certification points for completing the actions [Energy Efficiency for School Facilities](#) and [Energy Tracking & Management](#).



## EmPowered Schools Program Changes Behaviors

While infrastructure upgrades provide long-term savings, Bradley Beach School also recognized the importance of changing daily habits and behaviors. To complement the technical improvements, Heather and Amanda Bialek launched a student-led [EmPowered Schools](#) program to engage the school community in conserving energy and promoting energy-saving behaviors. The environmental club used the school building as a learning lab to solve real-world problems and generate cultural change by making energy efficiency visible, relevant, and achievable. Students audited the energy-conserving practices in each classroom, created a presentation for the staff on the importance of energy conservation, and asked teachers to sign a pledge committing to saving more energy. By positioning students as leaders, the program not only reduced energy waste but also built a culture of shared responsibility, empowering the entire school community to see how their actions make a difference.

## Educating Students for Sustainability

Bradley Beach Elementary School earned 50 points toward its [Sustainable Jersey certification](#) by integrating [Education for Sustainability \(EfS\)](#) into the curriculum. EfS equips students to contribute to a sustainable future by engaging them in solutions-based design and action, connecting knowledge across disciplines, and considering diverse social, economic, and cultural perspectives.



At Bradley Beach, EfS is woven throughout all grade levels, integrating climate change and environmental studies year-round. Each unit follows a project-based approach, building students' problem-solving skills and emphasizing real-world applications. For example, in one lesson, students examine four different impacts of climate change, then choose one that affects New Jersey. They write a claim-evidence-reasoning (CER) paragraph explaining why they believe it has the most significant impact on the state. This activity connects global issues to their immediate surroundings, empowering students to see how their knowledge and choices can make a difference in their local community.

This year, Heather is introducing the [OpenSciEd curriculum](#), an inquiry-driven, phenomena-based program aligned with the Next Generation Science Standards (NGSS). This new approach emphasizes student-led exploration and problem-solving, helping students think critically about pressing issues like climate change and sustainability. Heather believes that this type of hands-on, discovery-based learning is not only effective but also engaging and empowering for students.

## Sharing Knowledge Beyond the Classroom

Heather's leadership extends to the broader educational community. In October 2025, she will co-present with Kristin Goldsworthy at the [New Jersey Science Convention](#) in a session titled "*Science Is Everywhere: Engaging Young Learners Through Hands-On Discovery by Thinking Like a Scientist*." The goal is to show that science should not be intimidating. She said, "I tell my students to be open to wonder, to ask questions. Our school is five blocks from the beach, just go outside and explore. By being outside, we can bring science into everyday life."

## A Jersey Girl with a Calling

Heather is a lifelong Jersey Girl who lives in Monmouth County with her husband, Justin, their young children, Harper and Carter, and their rescue dog, Kobe. Teaching has always been her dream, and through her role at Bradley Beach Elementary, she has fulfilled that calling—building both a strong science program and culture of sustainability, empowerment, and community pride.

