Presidential Innovation Award for Environmental Educators

Essays

Innovation

How does the teacher make learning about the environment unique, fun, and exciting for his or her students? For example, does this teacher use experiential or place-based learning in ways that go above and beyond the practices of other teachers? Please be sure to demonstrate or exemplify this in the sample teaching materials.

Since I began teaching, my goal has been to connect the state-mandated academic standards to students' lives in a meaningful and impactful way and to further educate my students in the areas such as environmental issues and civic responsibility that were not addressed in our state standards. I was fortunate to be offered a position teaching second grade in a brand new school, Springdale Park Elementary School (SPARK), that stated their mission as "cultivating a community of innovative thinkers with a commitment to personal, environmental, and social responsibility." Our school opened in a LEED Gold certified building featuring a rooftop garden that held the potential to turn the school's mission into a reality.

In my first years teaching at SPARK as a second grade teacher, I took time to utilize the rooftop garden to make as many environmental connections as possible for not only my class, but for any other classes that signed up for time with me during my planning or lunch time. I also began to implement many school-wide events and programs aiming to carry out our mission of a commitment to environmental responsibility. I eventually realized that in order to impact each of our 700 hundred students in a meaningful way and to carry out my environmental programs to their fullest potential, it would need to be my full-time job. I spent the remainder of that year, preparing a proposal for a full-time Environmental Education position - one that does not exist

anywhere else in our state. After working throughout the summer with my principal, we were able to find funding for this position and since then, I have had class time with every class at least once a week that is dedicated to teaching environmental responsibility outside of the classroom walls, while reinforcing Science academic standards and integrating the additional academic standards of math, reading, and writing.

An integral part of my program is our unique outdoor classroom. Over the years, I have worked with many experts in the field to develop our rooftop garden and learning space that we utilize throughout the year in our weekly lessons. The garden now includes a pollinator garden, an herb garden, a strawberry garden, fruit trees, berry bushes, and a seasonal garden that we plant and harvest biannually. In addition, we utilize a rain catchment system, drip irrigation system, compost rollers and a compost tower, a worm farm, a beehive, bird feeders, and weather stations. Each of these systems gives students the unique opportunity to interact with their environment in a hands-on way on an ongoing basis, through every season.

Beyond the weekly classroom lessons, I sponsor our school's "Green Team" - a group of 4th and 5th grade students that meet twice a week to plan school-wide programming to give our students unique, exciting, and meaningful opportunities to learn more about environmental issues and to address them throughout their community. They are also tasked with writing grants and fundraising to support their efforts, as well as publishing their messages and programs in their seasonal newsletter called the "Green Team Gazette" that is filled with student-written articles, cartoons, statistics, quotes, and infographics and distributed throughout the school and community. (The "Green Gazette" is posted on my website:

http://tendingourcommonground.com/2014/10/08/green-team-newsletter-october-edition/)

Each year, a focus of the Green Team is waste diversion and they spend much of their time in the beginning of each school year advocating for efficient recycling and composting systems around the school. This year, we worked with the district to provide single-stream recycling at our school. Then, we worked with the school faculty and staff to put the appropriate systems in place to ensure that recyclables were diverted from the dumpster. Following that, the Green Team eagerly created lessons to redeliver to every class in the school around the book "Where Does My Trash Go?" by Paul Showers and they designed a poster for each classroom

that visually shows the items that are accepted in the single-stream recycling. Finally, the Green Team came up with a classroom contest in which the classes that correctly sorted their waste would receive one point for each day leading up to America Recycles Day. The winners of the recycling contest were able to attend an on-site field trip to see our local recycling truck in action and to have a question and answer session with the recycling facility manager. Kindergarten and 1st grade classes were also able to go one step further and discover what happens to their recyclables after they are carried away by the truck and when they reach the recycling facility. Students "recycled" their own used paper by soaking it, blending it into a pulp, then laying it out to dry into new paper - just like they do in the recycling facility. These programs around recycling created fun, hands-on opportunities for students to truly understand what happens after their waste is deposited in either the trash can or the recycling bin. (Information about our recycling program and projects can be found on my website: http://tendingourcommonground.com/?s=recycling)

Over the past years, the Green Team has developed our composting system as well. Since the first years of our program we have maintained demonstration compost systems for the children to interact with - compost piles, compost rollers, and a worm composting farm. This year, the Green Team took it a step further. They advocated for the adoption of compostable lunch trays for the school cafeteria and then raised over \$350.00 from our parents and community to fund a CompostWheels membership, in which CompostWheels picks up our compost weekly and then delivers our processed compost in time for our spring garden. We now compost all fruit and vegetable scraps from our cafeteria along with our compostable lunch trays, diverting all of our green waste from the landfill. (Information about our compost program can be found on my website: http://tendingourcommonground.com/tag/compost-wheels/)

The Green Team spends much of their time contributing to the planning and implementation of our school-wide events throughout the school year to make learning about the environment fun and exciting. These events include: Science Fair, Family Science Night, Pumpkin Chuck Engineering Competition and Composting Event, Fall and Spring Walk to School Day with the Clean Air Campaign, Project for a Day with the Mayors Office of Sustainability, Read for Recycling Week with the Georgia Recycling Coalition, America Recycles Day, Young Lungs at Work Art Competition with the Clean Air Campaign, Read Across America Day Viewing of "The Lorax", Spring Walk to School Day with the Clean Air

Campaign, Earth Day Festival, and STEM Career Day. (Photos and information about events can be found on my website: http://tendingourcommonground.com/category/events/)

The Green Team also helps plan field trips for the different grade levels to experience what they've learned about the environment within their own community. These trips include locations such as the Fernbank Science Center, Chattahoochee Nature Center, Dunwoody Nature Center, Wylde Center Community Garden, and the Atlanta Botanical Gardens. Through writing grants and reaching out to local community organizations, the Green Team has also been able to invite the Atlanta Audubon Society, Truly Living Well Community Garden, and the Atlanta Food Bank to our school for on-site field trips giving students unique experiences that connect to their everyday life. (Photos and information about field trips can be found on my website:

http://tendingourcommonground.com/category/field-trips/)

How does the teacher tailor his/her teaching methods to the needs of his/her student population?

To assess and address the needs of my student population, I dedicate time to communicating with homeroom teachers which informs the planning of my weekly environmental science lessons for each individual class. At the beginning of each year, I meet with the grade levels in order to understand the behavioral expectations for their students along with the academic expectations throughout the year. We work together with our district-required Pacing Guide to determine the skills and knowledge that students will need reinforcement with each week of the school year and stay in communication throughout the year to ensure that we are all on track. Furthermore, teachers provide me with their current assessment data and their current differentiated groups of on-level, below-level, and above-level students for each subject area. This allows me to not only teach the academic content that is needing reinforcement across the grade-level but also allows me to address the individual needs of each student within the class during their small group instruction.

Achievement

What positive changes has the teacher seen in the student academic achievement and behavior or attitude due to participation in the teacher's environmental education program?

As a teacher of every student in the school, I have the unique opportunity to work my students every single week from age five to eleven when I send them off to middle school. As I grow increasingly close to each student and their families, I witness their everyday challenges and successes, academically and with their behavior. It's so rewarding to see that the science lab and garden has become a place where all students can succeed, take on leadership roles, and learn through discovery and follow their natural curiosity.

Beyond the positive change I observe in my individual students continually, I work to assess my programs on a continual basis to ensure academic achievement and community satisfaction with the allocation of resources to my program. Our school is among the highest achieving in the state in the area of science, due to the student experiences of the both the homeroom science instruction and the environmental science lab working collaboratively towards student success. Over the past two years, 95% of our students have scored above proficiency in Science on our state-mandated assessment. One of the strongest signifiers of my program's success towards academic achievement is the communications from homeroom teachers mentioning that students are one step ahead because of the experiences offered in my class - not only in progress towards science standards but in other academic areas that are consistently integrated. One example, came in this email from a first grade teacher at my school:

"During one of our reading lessons last week, we were comparing and contrasting fiction and non-fiction books. Many of the students already knew a lot about nonfiction books...

The student said, 'In Ms. Mobley's class we talked about fiction and nonfiction. She read us a nonfiction book about leaves and a fiction book about leaves. That's how I know.' I want to give you kudos, from one teacher to another, on integrating standards during Environmental Science class. It helps with my daily instruction."

- Ms. White, 1st Grade Teacher

I have also conducted parent surveys to assess how effectively my lessons have reached the students' home lives and have made a lasting impact. The responses are consistently overwhelmingly positive. For example, one of the most recent parent responses on our Winter 2015 survey read,

"Ms. Mobley's enthusiasm, creativity, and the content of her lesson plans have directly impacted my child's understanding of his impact on the environment. He has motivated our family to make specific changes in our behaviors at home, so it's extended past just the changing of one child. It's changed our family. My son is not just learning facts, although those are important. He is being inspired to live out what he has learned. Ms. Mobley's class has been his favorite one since he has been at this school."

This environmental science program has been evolving since our school opened six years ago and the academic achievement and behavior improvements have become increasingly more profound as we continue to assess our program and make changes based on the needs of our students and community.

Service to the Community and Underserved Populations

How does the teacher extend environmental education beyond the classroom? Are the teacher's students participating beyond the classroom in environmental, conservation, or earth science extracurricular or community based projects or activities?

I work within my community in a variety of capacities to extend environmental education beyond the classroom and embed it within our entire community. I work with the Stewart Center to provide weekly classes for the after-school program and bi-weekly classes for the parents, along with planning programming for their special events and camps. I also work weekly with

ForeverFamily, an organization in our community that provides social, emotional, and educational support for children with incarcerated parents. This season, I will continue managing children's educational programming at two weekly farmers markets with Community Farmers Markets, reinforcing the positive effects that buying locally has on the environment.

Our SPARK students also participate in a variety of afterschool and summer programs including those hosted by Trees Atlanta, Piedmont Park Conservancy, and Truly Living Well Community Farm. Our most popular afterschool events have been Planting Days with Trees Atlanta on the Atlanta Beltline and tours of our local farmers markets that provide community members with the opportunity to reduce their carbon footprint while purchasing their food. (Photos and information about all community programs and events can be found on my website: www.TendingOurCommonGround.com)

How does the teacher inspire the surrounding community, including parents/guardians and members of the community to participate in environmental education activities?

Over the years, my parent community at Springdale Park has been some of my strongest advocates and much of my effort beyond the classroom focuses on informing the parents of the activities that their children are participating in at school and providing them with ideas and resources to implement them at home. I communicate with our parents in a variety of different ways including submissions to our weekly school newsletter and school website, my Environmental Science program Instagram account and Facebook page (300 followers), along with my website which is updated multiple times each week with photos, descriptions of lessons, and resources on implementing the programs at home. I've also created a Home-School Connection Incentive Program in which students are encouraged to turn in pictures of them connecting what they learn in my class at school to what they do at home to earn points to become the "Environmental Expert" (points leader) of their class. (Photos of Home-School Connection Projects can be found on my website: http://tendingourcommonground.com/category/home-school-connections/)

I also aim to inspire and inform the broader community mostly by engaging them in many of our efforts. Over the years, we have received funding or implemented programming with the help of Whole Foods, the Captain Planet Foundation, Trees Atlanta, Atlanta Audubon Society, Schoolyard Sprouts, Crystal Organics Farm, Truly Living Well Farm, the Edible

Schoolyard, the Wylde Center, Community Farmers Markets, Wholesome Wave, Compost Wheels, Farmer D Organics, Georgia Recycling Coalition, the Council for Intown Neighborhood Schools, Atlanta Partners for Education, Atlanta Metro Chamber, and the Mayors Office of Sustainability. (Photos and information about community partners can be found on my website: www.TendingOurCommonGround.com)

In addition, I have been fortunate to receive publicity to reach a broader community including being featured on National Public Radio (WABE), television station CBS46, the Atlanta Journal Constitution, Edible Atlanta magazine, and Atlanta Parent Magazine. (Links to press and media can be found on my website: http://tendingourcommonground.com/category/press-and-media/)

My hope is that through my website and social media outlets, along with our community partnerships, and press we've received, the broader community will be inspired to replicate these environmental activities within their own lives and communities.

Leadership

How does the teacher serve as a model for students and teachers with his/her approaches to teaching about the environment?

I view my school as the "pilot program" for Atlanta Public Schools and districts across our state. I aim to create and test the lesson plans and programs that work with our state academic standards and our district pacing guides so that other teachers can replicate them in their own schools.

I've shared my program and resources throughout the years while presenting at many workshops, summits, and symposiums hosted by several local organizations including Georgia Organics, Captain Planet, Atlanta Farm to School, Environmental Educators Association of Georgia, Atlanta Food & Farm Literacy Institute, Community Farmers Markets, and Atlanta Public Schools. (Photos and information about outreach efforts can be found on my website:

http://tendingourcommonground.com/category/education-and-outreach/)

All of the resources the I have created, I make available for free download on my blog, "Tending Our Common Ground." I've been posting resources and photos of our activities on this

blog since August 2011 and have reached over three hundred posts. I believe that this website is an essential element of my outreach to other teachers and other schools.

Through these various outreach efforts, I hope that my program serves as a model for other teachers throughout my district, state, and country.

Integration

How does the teacher help to integrate environmental education into the broader school curriculum or coordinate environmental education with other teachers and academic subjects?

The Environmental Science lab is fully integrated into our school culture and academic curriculum. Each student visits the "Science Enrichment Lab" for a 45-minute class period at least once a week where they participate in hands-on learning experiences that directly reinforce the Georgia Performance Science standards they are learning in their homeroom classes along with integrating Common Core standards for math, reading, and writing throughout the year. The weekly lessons are aligned with the district pacing guides to ensure the strongest connections between their current homeroom class instruction and the hands-on experiences during in the Science Lab.