

# SUSTAINABILITY HERO

## July 2021



### Stella Nwanguma

Principal, Winslow Township Middle School, Camden County

Stella Nwanguma has served as a teacher and school administrator in Camden County for 32-years. In 2009, Stella became the principal of [Winslow Township Middle School](#) and under her guidance, the school has achieved sustainability excellence. Stella is facilitating a school culture that encourages teachers and staff to collaborate, participate on the green team, implement innovative programs and pursue grant projects that create a more sustainable and healthier school.

In 2021, Winslow Township Middle School was recognized at the national level when it was named a [United States Department of Education Green Ribbon School](#), one of only two schools in New Jersey on the list this year. Winslow Township Middle School achieved [Sustainable Jersey for Schools](#) certification at the bronze-level in 2018 and the silver-level in 2020 and received the 2020 Sustainability Champion Award for earning the highest number of points in the middle school category.

Stella said, "Winslow Township Middle School's sustainability success is due to a collaborative effort. Our teachers are stars; they love what they are doing and are passionate. If I question one of our projects as being too daunting, the answer I always receive from staff is—'We've got this'."

It was a parent of one of her students who first introduced Stella to the benefits of sustainability in the school setting. The helpful parent was John Henry who is the STEAM and Sustainable Schools Specialist and LEED Green Associate at New Jersey School Boards Association and a past Sustainable Jersey for Schools Sustainability [Hero](#).

John said, "Strong leadership is connected to sustainability and Stella is a strong leader and has always been an advocate for her students' well-being. Her interest in sustainability started many years ago as she became aware of the positive environmental impacts and on the direct impacts on her student's health and wellness." He added, "Stella saw the benefits of implementing sustainability in her district not only through the lens of health and wellness, but also from the perspective of saving resources and money that could be redirected towards school improvement. Stella, supported her staff and provided time necessary to pursue Sustainable Jersey for Schools certification and also the Green Ribbon Schools designation."

Stella is proud of how the students have embraced sustainability. "It's an honor to be able to teach the principles of sustainability. Our students were invited to speak on climate change at a recent event. I was so impressed by their ideas for solutions and their comprehension of the challenges." Stella added, "We put our hearts into the green team work, and when we see that our students get it and will take our work to the next level--that gives me hope."



**Sustainable Jersey for Schools Silver-Certified:** Winslow Township Middle School's sustainability program includes a rooftop solar array, green cleaning, recycling, behavior-based energy conservation programs, local produce in the school cafeteria, social emotional learning programs for staff and students and community service events. To see all of the

sustainability actions that contributed to the school's impressive point total of 370, review the [2020 Winslow Township Middle School Sustainable Jersey for Schools Certification Report](#).

**Green Team Subcommittees:** The Winslow Township Middle School Green Team was established during the 2016-17 school year and is led by Portia Kielt, a seventh-grade science teacher. In 2020, the green team expanded its membership and added area focused green team subcommittees. Jessica Glatz, the graphic arts teacher, leads the Green Team Marketing Subcommittee which showcases the school's Sustainable Jersey for Schools efforts to the school and community. The Grants Subcommittee manages existing grants and looks for new opportunities.



Seventh grade math teacher Michael Wepler is the chair of the Actions/Points Subcommittee. He tracks the school's certification progress and serves as the 'point person' gathering action documentation to secure more points. Ross Cruz, an environmental STEM teacher, serves as the Gardens and Greenhouse Subcommittee Chair. He oversees the maintenance of the school's gardens and strategizes how to use them throughout the school's curriculum. Teacher Tricia Deal leads the Recycling and Special Projects Subcommittee that is currently working on a recycled bottle cap mural. Watch the Sustainable Jersey Champion Award video to hear directly from the members of this incredible green team: [2020 Sustainability Champion- Winslow Township Middle School Video](#).

**School District Support:** Stella credits the leadership at the Winslow Township School District for the middle school's success. Superintendent Dr. H. Major Poteat and Assistant Superintendent Dr. Dorothy Carcamo have been extremely supportive of the green team's efforts. Stella said, "Dr. Poteat provided me with the professional freedom to be creative. I had the opportunity to design programs and form teams to embrace sustainability. We established a level of trust that helped me and the staff fully realize our capacity. Dr. Carcamo is a mentor to me. She works hard to identify resources when we need them and provides advice."

**Advice for Schools Interested in Sustainability:** Stella did not start out as a sustainability expert. She spent a lot of time watching [Sustainable Jersey for Schools webinars](#) and reading the [actions](#). She also invited experts to talk to the staff. "My advice is to start small and open the conversation to everyone. Empower people and let them identify their strengths. If they like to garden, have them lead the gardening committee. In our middle school, all ideas are good and it is a true collaboration. We also benefitted from working with community members who had expertise in different areas and were excited to help our work," Stella added.

**Cross-Curricular Infusion of Sustainability:** Winslow Township Middle School is doing an outstanding job of incorporating sustainability and environmental education throughout the school's curriculum. Examples of sustainability in classrooms lessons can be found throughout the school. Science students monitor the water, pH levels, and growth of the tower garden; make observations; and record data to draw conclusions. Art students are challenged to represent the negative impacts of plastic pollution. Engineering students create a logo that brings awareness to a sustainability topic of their choosing. English language arts students write essays on the plastic problem. A math teacher incorporates principles of healthy eating through a lesson about the sugar content of various popular drinks and students complete a computer science lesson called Artificial Intelligence for Oceans.

**Gardens and Greenhouse:** Winslow Township is surrounded by a farming community; however, many students have limited knowledge about the farming industry. Winslow Middle School bridges this gap with an active school gardening program. The middle school has two courtyard gardens and hydroponic growing systems in the science classrooms. A large greenhouse is being constructed now to expand the garden capabilities. This new building will support science, STEM, math and other areas of study, and will allow the staff to introduce many more students to the art and science of growing fruits, vegetables and herbs, as well as topics related to healthy eating, cooking and nutrition for overall well-being.



Projects like the vertical gardens and new greenhouse were supported with funding from the [Sustainable Jersey for Schools Grants Program](#). Gardening and agricultural education is a large focus of the middle school, as evidenced by the Bernzomatic IDEA Courtyard Garden (funded through a grant from the

Bernzomatic Corporation), indoor hydroponic gardens (funded through grants from Lowe’s Toolbox for Education) and vertical tower gardens (made possible by a Sustainable Jersey for Schools grant funded by New Jersey Education Association). The greenhouse is being constructed with funds provided by the school district. Funding for the materials and supplies required inside the greenhouse, as well as for greenhouse curriculum development and staff professional development, was received from a \$10,000 Sustainable Jersey for Schools grant funded by the New Jersey Education Association. The greenhouse is planned to open in September 2021.

There are a variety of crops that are grown in the Bernzomatic IDEA Courtyard Garden and the indoor vertical tower gardens. Students and staff manually pull weeds and mulch to manage weeds instead of using herbicides. They use plant-based food waste from the cafeteria to create their own compost in the garden compost bin and the vermicompost bin. Compost and organic fertilizers are used to feed plants.

The food produced from the garden is used to educate the students on healthy and tasty alternatives to highly processed and fatty foods. Food challenges based on the cooking show “Chopped” are developed to have students create healthy plant-based dishes with the food available from the garden. The recipes are then shared with the students’ families to promote healthy eating habits.

**Energy Conservation:** Conserving energy is a priority for students and staff at the middle school. Motion sensor lights have been installed in many areas of the school, saving energy in unoccupied rooms and helping to remind students of the importance of conserving energy.

The middle school has an 820.54 kilowatts solar system with a production of 1.02 megawatts. STEM teachers incorporate the school’s solar panel energy generation into classroom lessons using the [EmPowered Schools](#) program. The program, which provides free support and resources to educate students about energy efficiency, was led at Winslow Township Middle School by Environmental STEM teacher, Ross Cruz. Cruz incorporated the EmPowered Schools program into his classes weekly to train all 60 of his students to be Energy Ambassadors to help promote energy conservation throughout the school. Through this program, staff and students learned about energy-saving measures and signed a pledge to conserve energy. Students created videos that explain the program and its benefits, and completed energy audits in various classrooms. Stickers were made to prompt conservation. Light switches have a “Last out, lights out” sticker on them. The computers have the sticker that reads: “Shut em down when not around.” The middle school won the EmPower Schools competition in the 2019-20 school year and was the first participating school to earn over 1,000 points. The middle school received Sustainable Jersey for Schools certification points for this work with the action: [Behavior-Based Energy Conservation Programs](#).

**Stella’s Education and Career:** Stella earned a Bachelor’s Degree in Journalism and Mass Media with a minor in English at Rutgers University in New Brunswick. She started teaching in Camden; first at the Lanning Square Elementary School and then at the Creative Arts High School. She achieved a Master’s Degree in School Administration at Rowan University and was the vice principal at Camden High School and then the principal at Thomas Sharp Elementary School before accepting the principal position at Winslow Township Middle School.

**More About Stella:** Stella’s family moved to Camden, New Jersey from England when she was seven years old. She is thankful for a big family and feels lucky to have been surrounded by strong women, especially her three sisters. She is a proud member of the [Delta Sigma Sorority](#), an organization and sisterhood of predominantly Black, college educated women.

Although Stella said she is trying to improve her work/life balance, she is already planning the middle school’s new year of sustainability actions. She said, “Our theme will be ‘Learning and Living Sustainably.’ I asked the staff to begin coming up with ideas now, because at Winslow Township Middle School, we are not just winging it, we are planning.”

