



Sustainable Jersey for Schools Certification Report

This is the Sustainable Jersey for Schools Certification Report of Littlebrook Elementary School (Mercer), a Sustainable Jersey for Schools bronze certified applicant.

Littlebrook Elementary School (Mercer) was certified on August 20, 2017 with 155 points. Listed below is information regarding Littlebrook Elementary School (Mercer)'s Sustainable Jersey for Schools efforts and materials associated with the applicant's certified actions.

Contact Information

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Actions Implemented

Each approved action and supporting documentation for which Littlebrook Elementary School (Mercer) was approved for in 2017 appears below. Note: Standards for the actions below may have changed and the documentation listed may no longer satisfy requirements for that action. Additionally, points associated with actions prior to 2013 certifications may not be accurate.

Board Leadership & Planning

Professional Development for Sustainability

20 Points

🏅 Bronze Priority 🏅 Silver Priority School District

Program Summary: Professional Development Training for 20 District Teachers and

Administrators on 1/11 during a 3 hour half day training. During a Solar One training, teachers will have the opportunity to engage in hands-on activities, lesson planning, and discussion of best practices for program implementation. All GDL curriculum is aligned to Common Core and NGSS Standards. The lessons are hands-on, experiential activities that promote inquiry-based learning. Additionally, all of these lessons may serve as building blocks for cross-curricular projects. Solar One will provide in-depth training on the Energy Unit of the Green Design Lab curriculum during this training. Activities included conducting a classroom energy audit, making a sundial watch, constructing a magnet motor, experimenting with solar PV panels, and building a solar thermal oven. Last summer we also conducted a training on the new composting program for two hours with a rep from Central Jersey Waste. The Supervisor of Science, Garden Educators, Supervisor of Facilities, and the HS vice principal as well as others learned about best practices to implement the new composting program.

PDF: [PROFESSIONAL DEVELOPMENT FOR SUSTAINABILITY DOCUMENTATION](#)

WORD: [SOLAR ONE PD PARTICIPANTS](#)

WORD: [SOLAR ONE CURRICULUM DESCRIPTION](#)

WORD: [SOLAR ONE POST TRAINING RESOURCES](#)

District Sustainability Policy

10 Points

District

Program Summary: http://www.princetonk12.org/Board/Sustainability_Initiatives/ The PPS School Board passed a resolution entitled "Principles of Sustainability" in 2013. The purpose of the resolution was to set goals and expectations, and to create a framework for establishing environmentally-conscious behaviors throughout the district. The PPS Sustainability Policy is listed as a model for other schools to emulate in the "Spotlight" section of the Sustainable Jersey action item descriptions. This policy was created by members of the Princeton Green Schools Coalition, together with PTO members and school administrators, who all worked to champion passage of the resolution first by the Facilities Committee and ultimately by the entire School Board. After passage, the resolution was posted on the district website along with regular updates and email blasts about district sustainability initiatives from the PPS Communications Coordinator. The policy paved the way for subsequent acceptance and passage of the Resolution to Participate in the Sustainable Jersey for Schools certification process. See this link for current website posting (will be revised to reflect SJ certification updates before Sept 2017 school start). http://www.princetonk12.org/Board/Sustainability_Initiatives/

WORD: [DISTRICT SUSTAINABILITY POLICY DOCUMENTATION](#)

WORD: [DISTRICT SUSTAINABILITY POLICY DOCUMENTATION](#)

Food & Nutrition

Promote Locally Grown Foods

10 Points

School District

Program Summary: Littlebrook Elementary is fortunate to participate in the Garden State On Your Plate program. For the 2016-2017 school year, that meant four tastings of fresh, local produce! All of the tasting samples were prepared in the school kitchens and a local chef or farmer came to each tasting to talk with the students. In October, Chefs from Princeton University Campus Dining prepared broccoli. In November, the children were able to taste cabbage with Farmer Jess Niederer. Sweet Potatoes were on the menu in March, with Chef Michelle Fuerst. And finally, Farmer Alec Gioseffi was present when the students sampled turnips. To promote this activity, posters are prepared for the Cafeteria and students are sent home with a handout (samples are attached). Furthermore, all of the produce, dairy, and eggs served in the Littlebrook Elementary cafeteria is locally-sourced. Produce comes from US Foods in Bridgeport, milk and eggs from Cream O'Land in Florence, ice cream from Jack & Jill, which is based out of Philadelphia. Hanging in the LB cafeteria are posters advertising the cafeteria's Jersey-fresh produce (see attached). Finally, as the garden comes alive with harvest, the school cafeteria arranges several impromptu dishes, including the salad that was recently advertised in a school newsletter (attached). Parents are very appreciative of our emphasis on local foods. For example, children have been known to come home exclaiming that they prefer their chard sautéed with olive oil and a touch of salt!

PDF: [PROMOTE LOCALLY GROWN FOODS DOCUMENTATION](#)

PDF: [PROMOTE LOCALLY GROWN FOODS DOCUMENTATION](#)

PDF: [PROMOTE LOCALLY GROWN FOODS DOCUMENTATION](#)

PDF: [PROMOTE LOCALLY GROWN FOODS DOCUMENTATION](#)

IMAGE: [PROMOTE LOCALLY GROWN FOODS DOCUMENTATION](#)

PDF: [PROMOTE LOCALLY GROWN FOODS DOCUMENTATION](#)

School Gardens

10 Points

School

Program Summary: The Littlebrook Elementary School Garden Program started ten years ago as an after school club run by parent volunteers interested in teaching children about growing food. Each year the garden has grown in size and diversity, and last year it received a major overhaul. The Garden now encompasses nine rotating irrigated vegetable beds, as well as numerous other beds supporting herbs, fruit trees, berries, native plants and pollinators (see attached map). Over the years, the Program has grown to the point that it now serves all 350 children in the school and is integrated into the K-5 curriculum. Each grade has a garden project linked to the curriculum. For example, the fourth grade project is a Three Sisters plot (with corn, squash and beans), which links to their study of Native American history and culture. Through year-long projects, the children learn about horticulture, food preparation and nutrition, ecology, social studies and plant and earth sciences. Their hands-on experiences in the garden also reinforce lessons in other subject areas, such as math, reading, Spanish and art. Sharing the results of their garden projects builds our students' self-confidence and ownership in the school. Collaborations with local farms and environmental groups also build their connection to the greater community. Parents, students, teachers and community members have built, filled, planted and harvested our edible classroom. Currently a part-time Garden Educator and Master Gardener, Nancy Nicosia, maintains the garden, developing planting schedules, and working with teachers to plan projects and activities suitable to each grade level. Twice a year, parents organize Work Days so that families can join in cleaning and preparing the garden. Furthermore, as the school year ends, parents are asked to sign-up to weed, water, and harvest over the summer vacation (see attached). Over time, teachers and parents have witnessed the tremendous impact a school garden can have on students. Through our beautiful "outdoor classroom," they've learned to be healthier, more adventurous eaters and better stewards of the natural world!

PDF: [SCHOOL GARDENS DOCUMENTATION](#)

PDF: [SCHOOL GARDENS DOCUMENTATION](#)

IMAGE: [SCHOOL GARDENS DOCUMENTATION](#)

Learning Environment

Student Participation in the Arts

10 Points

District

Program Summary: The arts are extremely important at Princeton. Every elementary school student is taking classes in music and visual arts and every middle and high school student has access to music and visual arts classes and high school students are demonstrating competency in at least one arts discipline by graduation. Please see the state reports for the Arts on page 16 for the HS and page 15 for the Middle School. **DISTRICT OVERVIEW:** Princeton Public Schools provides a comprehensive PreK-12 Curriculum which supports critical thinking and problem-solving. In today's ever-changing world, it is essential our children learn how to creatively attack challenges and persevere to find solutions. Throughout the grades, students will gain an understanding of the essential skills and concepts needed to build a strong foundation. Classroom instruction will support the diversity of our learning community and integrate technology to enhance 21st Century Skills. **DEPARTMENT PHILOSOPHY:** Active participation in an arts program is a critical component in every child's education. Arts programs enrich students' lives and provide a vehicle for them to communicate and express human emotion and ideas. In addition, the study of the arts prepares students to be successful in a twenty-first century world that demands innovative thinking and creativity in an increasingly competitive global society. We believe that all students are capable of growth in the arts and that there are skills and concepts inherent in the arts that cannot be taught in other disciplines. Participation in an arts program allows students to make connections across content areas and cultural boundaries. The New Jersey Core Curriculum Content Standards for Visual and Performing Arts document begins with the following mission statement:

PDF: [STUDENT PARTICIPATION IN THE ARTS DOCUMENTATION LETTERS](#)

PDF: [STUDENT PARTICIPATION IN THE ARTS DOCUMENTATION](#)

PDF: [HS PERFORMANCE REPORT](#)

Curriculum Mapping

20 Points

School District

Program Summary: The district uses Rubicon Atlas to map all curriculums using the Understanding By Design Framework. In 2007, Princeton began to place curriculum documents into electronic "maps" that are accessible to all of our teachers and administrators. These curriculum maps have created a mechanism to communicate content expectations for all teachers such that our district can gain consistency and coherence across all content areas. Teachers and supervisors use this tool, the Rubicon Atlas system, to design curriculum and instruction with attention to the progression of topics from year to year, as well as

interdisciplinary projects at particular grade levels. The K-5 curriculum maps are organized into units with essential questions, enduring understandings, content, and skills. This format follows the Understanding by Design (UbD) approach to curriculum development. Its framework allows teachers to design their instruction with meaningful activities that lead to the desired learning outcomes as evidenced by assessments that reveal student understanding. At the beginning of the summer the superintendent and assistant superintendent provide a full day training to staff about how to write curriculum. Here is the description of the workshop "The intent of the workshop is to create a common framework for the development of curriculum as well as a forum for sharing the diverse ideas and expertise of all those engaged in writing it. Participants will learn the format, components, and processes of constructing coherent curriculum using big ideas, essential questions, where to, and the six facets of understanding. Together, participants will explore what these components look like for students, and consider Multiple Intelligences theory, project-based learning, and social emotional development to enhance student learning." The teacher are assigned various hours to work together to write. The supervisor checks the curriculum and provides feedback. It is then board approved and it becomes the district curriculum. We are on a five year cycle to review curriculum. The attachment is an example of the 100 different science curriculum units. Below is a sample of the framework we use.- Essential Questions: 1. What are the properties and characteristics of an ocean and its... Content and Academic Vocabulary: 1. Identify and locate the oceans of the world. (descending order of size:... Skills: Students will develop problem-solving, decision-making, and inquiry... Performance Tasks: Resources: Awesome Ocean Science – Cindy Littlefield Bill Nye’s Big Blue Ocean – Bill N... Enduring Understandings: 1. The ocean is a complex system that covers 2/3 of Earth's surface.2.... Learning Activities: Toss a globe ball around the room and mark on a tally sheet when their... Standards: NJ: 2009 CCCS: Standard 5: Science NJ: Grade 4 5.1 Science Practices 5.1... Ideas for Interdisciplinary Connections: The oceanography unit can be incorporated into various subject areas... Ideas for Differentiation The impact since 2007 when this has started is that rigorous curriculum has continued to be developed and improved upon by teachers and supervisors for the success of all students. http://curriculum.princetonk12.org/curriculum/Middle_School/ This link can be used to look through all the curriculum.

PDF: [CURRICULUM MAPPING DOCUMENTATION](#)

PDF: [SCIENCE CURRICULUM MAPPING DESCRIPTIONS](#)

Student & Community Outreach

Green Team

10 Points

 Bronze Required School District

Program Summary: The PPS District Green Team was officially commissioned by Supt. Cochrane (see document uploaded) for the 2015-16 year and met quarterly to establish a framework for coordinated action in pursuing SJ certification. Building on that foundation, in the 2016-17 year, individual green teams were added at each individual school (six total) with support grants from Sustainable Jersey. Designated representatives from each school served as liaisons to the the District Team in order to ensure coordinated action throughout the schools. This year, In addition to pursuing Bronze level certification actions, the district-wide thematic priority was improving compliance with sustainable waste practices. This involved a full, district wide composting program (with new hauler) along with education and training of students, teachers and maintenance workers. Waste audits were performed by students k-12 and by all k-5 elementary science lab teachers. See attachment for board approved teacher representatives from each

school (Union Reps were Martha Friend and Paula Jakolew). Additional members of the District GreenTeam included the following: Steve Cochrane, Superintendent, Bonnie Lehet, Curriculum Supervisor, Stephanie Kennedy, Business Administrator, Gary Weisman, Facilities Manager, Edward Cohen, k-12 Science Supervisor, Kim McReynolds, Grants and Programs Specialist, Mia Sacks, liaison to Sustainable Princeton and the Municipal Green Team, Garden Educator, Priscilla Hayes and BOE representative, Patrick Sullivan. Parent/PTO reps from each school were Jenny Ludmer, Alexandra Bar Cohen, Sandy Moskowitz, Stephanie Chorney, Lisa Serieyssol and Elizabeth Collier. Having made so much progress this year in improving waste practices, we plan to move next year to focus on energy and wellness. We will also focus on improving coordination and communication between schools and more comprehensive, timely documentation of our actions. We have received a pledge of greater support and involvement from the Facilities Committee in the coming year. **INDIVIDUAL SCHOOL GREEN TEAM SUMMARY:** Each school's green team accomplished the following: - setting up waste sorting stations at events (composting, recycling, landfill) and signage - same as above in cafeteria and classrooms -- new bins purchased with SJ grant funds. - color coding : bins and signage in cafeteria, classrooms and at events to facilitate sorting - signage has imagery or product samples to facilitate sorting - started a onsite composting program to create fertilizer needed for the school's vegetable garden, using compostable waste generated in the classrooms. - acquired and used sets of reusable plates and cups some events including all tastings organized by the garden specialist. - acquired and used - in larger events- paper products that can be composted (such as chinet) - Working toward zero waste school wide events. - created guidelines for 'green parties' in the classrooms, encouraging parents to donate or sew reusable tablecloths and pitchers to distribute water at parties, for instance - set up 'how to pack a green lunch' demonstration tables at family events with product samples and discount coupons. (For more details about each individual school's green team activities, please see the recent grant reports submitted to Sustainable Jersey.)

WORD: [GREEN TEAM DOCUMENTATION](#)

WORD: [GREEN TEAM AGENDAS 2016-2017](#)

EXCEL: [DISTRICT GREEN TEAM MEMBERSHIP 2016-17](#)

WORD: [GREEN TEAM ORIGINAL PRESS RELEASE FORMATION OF GREEN TEAMS 2015](#)

WORD: [GREEN TEAM ESTABLISHMENT LETTER](#)

PDF: [INTERNAL JOB POSTING FOR DISTRICT GREEN TEAM](#)

Green Fair

10 Points

School

Program Summary: In May 2016, Littlebrook Elementary proudly hosted a Creatively Green Family Arts Festival. During the festival, parents and children worked with recycled products to make art with the goal of learning the importance of environmental sustainability. Community partners included Sustainable Princeton, Arts Council of Princeton, West Windsor Arts Council, Art Collaborations, and Princeton High School Art students. All Littlebrook families were invited to attend and the event was well-promoted and well-attended. Nearly 20 visual and performing artists from Young Audiences New Jersey led workshops, as well as Priscilla Hayes, Littlebrook's former garden manager. Additionally, fourth and fifth grade students worked together to run a table. The Amazing Junk Jam Band further inspired the crowd with their energetic use of homemade musical instruments. Colleen Dell, Littlebrook's Art Teacher, organized the event and completed the Qualitative Assessment Template (attached).

PDF: [GREEN FAIR DOCUMENTATION](#)

IMAGE: [GREEN FAIR DOCUMENTATION](#)

PDF: [GREEN FAIR DOCUMENTATION](#)

PDF: [GREEN FAIR DOCUMENTATION](#)

"Green" Your Green Fair or School Event

10 Points

School

Program Summary: On June 14th, the entire 5th grade class was invited to an end-of-the-year party and multiple efforts were introduced to ensure this was a truly low-waste event. First, the PTO created laminated signs for the compost and recycling bins that could be reused for every PTO event, regardless of where the bins were located. In addition, washable bowls held food served to the children instead of individually-wrapped snacks that generate waste (eg, popsicles wrapped in plastic and individual water bottles were banned). Furthermore, during the event, the compost bin was rolled next to the serving table and we ensured that all plates and cups are compostable, so there would be no contamination in the compost bin. While this was just one event, the strongest point was the emphasis on greening the event which we believe will set the stage for a future of more green events at the school and in our community.

PDF: ['GREEN' YOUR GREEN FAIR OR SCHOOL EVENT DOCUMENTATION](#)

PDF: ['GREEN' YOUR GREEN FAIR OR SCHOOL EVENT DOCUMENTATION](#)

PDF: ['GREEN' YOUR GREEN FAIR OR SCHOOL EVENT DOCUMENTATION](#)

Green Challenges

10 Points

School

Program Summary: During the 2015-16 school year, Littlebrook participated in the TREX Recycling Challenge, collecting 720 pounds of "upcyclable" plastic and winning 1st place in the regional competition. Parents and students were actively educated about all of the plastics that could be "upcycled" through TREX, including all kinds of bags -- ziploc, produce, grocery, department store, cereal, bread, dry cleaning, and ice -- as well as plastic overwrap, newspaper sleeves, bubble wrap and "How2Recycle" products. Once the competition ended, we encouraged parents' continued participation by referring them to other local drop-off locations (e.g., local grocery and Target stores). And to this day, Littlebrook collects any such TREX plastics used throughout the school day (e.g., ziplocs from children's lunches). Our dedicated Science Teacher personally transports these collected plastics to the acceptable drop-off locations.

PDF: [GREEN CHALLENGES DOCUMENTATION](#)

IMAGE: [GREEN CHALLENGES DOCUMENTATION](#)

PDF: [GREEN CHALLENGES DOCUMENTATION](#)

IMAGE: [GREEN CHALLENGES DOCUMENTATION](#)

Student Learning

Education for Sustainability 1st Grade

10 Points

School

Program Summary: First grade students at Littlebrook Elementary School explored idea of "rot" or decomposition and its importance to health of our local school environment and the many larger natural systems. This lesson played important part within school's new compost initiative to educate students (and their families through "dinner table talk") about why understanding decomposition is so important. Students investigated our school garden as they worked to understand what (and why) materials will decompose and applied that to example bag and "hot" lunches. This work gave them a greater understanding for our compost initiative and new appreciation about the natural world (and so many natural processes/cycles). This initial work around decomposition led to greater engagement in future work throughout the school year and will be continued in the 2nd grade's learning of Earth systems. The hope is that the students will make connections within their daily life and solidify their understanding of the interconnectedness of the many natural systems of which they are part. They might have thought they were just thinking about a rotting apple but in fact were exploring the ideas that all things are connected and our actions have consequences.

WORD: [1ST GRADE DECOMPOSITION LESSON](#)

WORD: [RUBRIC WITH RESULTS](#)

WORD: [PHOTO OF STUDENT ASSESSMENT AND APPLE](#)

WORD: [SJS QUESTIONNAIRE](#)

PDF: [RATE OF DECOMPOSITION INVESTIGATION \(NEXT STEP\)](#)

Waste Reduction & Recycling

Food Waste Recycling or Composting

15 Points

School

Program Summary: Beginning in the Fall of 2016, Littlebrook Elementary, along with every school in the Princeton Public School system, acquired a new comprehensive food waste management contract. All food waste and soiled paper products are now collected in the cafeteria, as well as individual classrooms, and transported to a composting facility in Tullytown, PA. A massive education initiative was undertaken to ensure students, staff and parents had sufficient knowledge to participate in the program. This outreach is also important for sustainability efforts within the community, since all residents of Princeton have the option to participate in a curbside composting program for their home.

PDF: [FOOD WASTE MANAGEMENT DOCUMENTATION](#)

PDF: [FOOD WASTE MANAGEMENT DOCUMENTATION](#)

IMAGE: [FOOD WASTE MANAGEMENT DOCUMENTATION](#)

Recycling Non-Mandated Materials

10 Points

School

Program Summary: Littlebrook Elementary participates in TerraCycle recycling program. TerraCycle's mission is to eliminate waste by recycling items that were previously non-recyclable. The company then creates new products from the converted waste. Littlebrook receives \$.01 for each point worth of waste the school sends to TerraCycle, and monies received are used to fund camps and extra-curricular activities for economically-disadvantaged families. Last year, Littlebrook added three new brigades to our collection: HonestKids Drink Pouch Brigade, the GoGo Squeeze Pouch Brigade, and the Baby Food Pouch Brigade. Parents and students are asked to bring in collectible items from home each month. Collection bins are kept in the cafeteria and classrooms to collect any applicable waste from students or staff. Our dedicated ESL teacher (Ted Holsten) is in charge of this program and stores waste in boxes until there is a justifiable amount to mail to Terracycle. All promotions to parents are done electronically, via our website or newsletters (see attached).

IMAGE: [RECYCLING NON-MANDATED MATERIALS DOCUMENTATION](#)

PDF: [RECYCLING NON-MANDATED MATERIALS DOCUMENTATION](#)

PDF: [RECYCLING NON-MANDATED MATERIALS DOCUMENTATION](#)

PDF: [RECYCLING NON-MANDATED MATERIALS DOCUMENTATION](#)

IMAGE: [RECYCLING NON-MANDATED MATERIALS DOCUMENTATION](#)