

U.S. DEPARTMENT OF EDUCATION
GreenRibbonSchools
School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades Pre-K-12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools 2015-2018

Public Charter Title I Magnet Private Independent Rural

Name of Principal:

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: Long Branch Middle School
(As it should appear on an award)

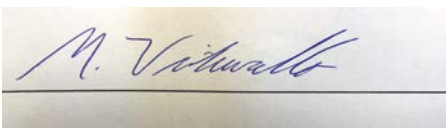
Official School Name Mailing Address: 350 Indiana Ave
(If address is P.O. Box, also include street address.)

County: Monmouth State School Code Number *: 252770060

Telephone: 732-229-5533 Fax: 732-229-4898

Web site/URL: <http://www.longbranch.k12.nj.us/Domain/14> E-mail: mviturello@longbranch.k12.nj.us

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.



Date: 1/27/2017

(Principal's Signature)



Name of Superintendent: Dr. Michael Salvatore
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: Long Branch Public Schools

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

A handwritten signature in black ink, appearing to read "Michael Salvatore".

Date: 1/27/2017

(Superintendent's Signature)

Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: **New Jersey Department of Education**

Name of Nominating Authority: **Mr. Bernard E. Piaia, Jr.**

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

A handwritten signature in black ink, appearing to read "Bernard E. Piaia Jr.".

Date: January 31, 2017

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only schools that document progress in every Pillar and Element can be considered for this award.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

School Contact Information

School Name: Long Branch Middle School District Long Branch Public Schools

Street Address: 350 Indiana Ave

City: Long Branch State: NJ Zip: 07740

Website: www.longbranch.k12.nj.us Facebook page: https://facebook.com/lbpublicschools/

Principal Name: Michael Viturello

Principal Email Address: mviturello@longbranch.k12.nj.us Phone Number: 732-229-5533 x 40010

Lead Applicant Name (if different): Ann Degnan

Lead Applicant Email: adegnan@longbranch.k12.nj.us Phone Number: 732-571-2868 x 40710

<p>Level</p> <p><input type="checkbox"/> Early Learning Center</p> <p><input type="checkbox"/> Elementary (PK - 5 or 6)</p> <p><input type="checkbox"/> K - 8</p> <p><input checked="" type="checkbox"/> Middle (6 - 8 or 9)</p> <p><input type="checkbox"/> High (9 or 10 - 12)</p>	<p>School Type</p> <p><input checked="" type="checkbox"/> Public</p> <p><input type="checkbox"/> Private/Independent</p> <p><input type="checkbox"/> Charter</p>	<p>How would you describe your school?</p> <p><input checked="" type="checkbox"/> Urban</p> <p><input type="checkbox"/> Suburban</p> <p><input type="checkbox"/> Rural</p>	<p>District Name</p> <p>Long Branch Public Schools</p> <hr/> <p><input type="checkbox"/> Largest 50 Districts in the nation?</p> <hr/> <p>Total Enrolled:</p> <p><u>5800</u> / <u>1136</u></p>
<p>Does your school serve 40% or more students from disadvantaged households?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>% receiving FRPL <u>70.37%</u></p> <p>% limited English proficient <u>7.57%</u> @ MS <u></u></p> <p>Other measures <u></u></p>		<p>Graduation rate: <u></u></p> <p>Attendance rate: <u></u></p>

SUMMARY NARRATIVE: Provide an 800 word maximum narrative for publication describing your school’s efforts to reduce environmental impact and costs, improve student and staff health, and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships. (See [examples](#) from prior year)

The Long Branch Middle School lives and breathes “GREEN” as our school colors are green and white while our mascot is the [Green Wave!](#) We have taken the challenge of reducing the size of the environmental footprint we leave on the Earth today that includes pollution, excessive garbage production, fossil fuel dependency, poor health and nutrition, and even the destruction of our natural environment. This year our school earned bronze level certification from the Sustainable Jersey for Schools program, and we are currently working towards a silver certification.

Ten years ago, Long Branch Middle School opened its doors with environmental impact in the forefront. It was built with geothermal heating with the understanding that this would reduce the building’s environmental impact on the futures generations. Solar panels were installed on the roofs and atop the car ports in the parking lots. Our school collects 300 Megawatt hours from the solar system yearly, reducing the energy impact on the community. We have received a score of 84 points on the Energy Star Certification, 21 points higher than our baseline year in 2012. These sustainable actions have allowed Long Branch Middle school to reduce the environmental impact and the cost to the community. As a result of the GREEN initiatives we have saved the district over 2 million dollars.

Our Power School Team has taken on the challenge of tracking energy usage throughout the schools through the power school program of New Jersey Natural Gas. Team members learn how our school can reduce our energy consumption and have ownership in the process. The team audited all classrooms’ level of energy consumption and educated the staff and students how to reduce the amount of energy by monitoring lighting levels, temperatures, appliance power usage, window and door usage, and even simply shutting lights off when leaving a classroom. Long Branch Middle School curriculum imbeds environmental sustainability across all grade bands and subject areas. Students take learning out of the classroom in multiple field trips throughout the year to zoos,

museums, the beach and local watersheds. Our students create and design farming equipment using Little Bit Circuits and a sustainable green habitat to survive on another planet. Recent weather events such as Hurricane Sandy are studied to understand how their community was affected. Students write position based essays and debate on topics such as plastics in cosmetics, endangered species regulations, genetically modified crops and depletion of natural resources. In a usable construct the students create their own solar cookers to enable them to harness the power of the sun to cook food or make water safe to drink. Our students create a sustainable biosphere in a recycled soda bottle with native plants from Lake Takanassee, the local lake on the southern board of the Long Branch community. Long Branch Middle School partners with the Sea Grant organization at Sandy Hook to have students study the environmental impact of sea grass on the dune. At the end of the school year students go to Sandy Hook to plant sea grass to replenish the constantly declining grass due to storms.

Our special education students grow and harvest herbs and vegetables in their courtyard garden to cook and sell healthy meals to staff members at Café 63. The student run Café has gained so much popularity over the past five years that a yearly healthy cookbook is produced by the students and sold to staff in June. LBMS is eating right and making healthier choices with our farms to school practice and healthy fruit and veggie snack options in the lunchroom. Students compete once a year in the Iron Chef challenge with our food service Sodexo which students create their own healthy food plates from a list of given ingredients. Local community members judge and taste the team's healthy creations to crown one team the Iron Chefs of Long Branch Middle School. We have attained the Bronze Level for the Alliance for a Healthier Generation in 2016 and we are currently applying to the USDA's Healthier US School Challenge.

We also advocate for our students to be knowledgeable about national and international public health and safety issues. Our comprehensive Health & Physical Education focuses on preparing students to lead an active and productive lifestyle and develop motor skills for safe, successful and satisfying participation in physical activities so that they will engage in a physically active lifestyle into adulthood. We develop the whole child and provide opportunities to form good character through opportunities to assume leadership, cooperate with others, and accept responsibility for their own behavior. Our students learn a healthy and fit lifestyle that will continue after graduating from the Long Branch Public School system.

We are excited about the efforts and outcomes we have achieved at the Long Branch Middle School thus far and we are motivated to continue our efforts to create a greener tomorrow. We plan to continue teaching and inspiring our students and the community to reduce our footprint to continue making the home of the "green wave" a sustainable place to learn and grow.

Instructions for completing this form: Please answer all of the questions below to the best of your ability, **in a different text color**. A more complete application will increase your chances of success. You may supplement the information in these questions by describing alternative benchmarks or indicators of progress (see final question in each section).

SCHOOL PROFILE: GREEN SCHOOL PROGRAM AND AWARDS (Cross-Cutting Question)

1. Has your school participated in a local, state, or national program, which asks you to benchmark progress in some fashion in any or all of the Pillars? Yes X No ___ If yes, please explain what program(s) and what level you are currently at, and state the years you have been involved in these programs. **We recently submitted for Energy Star Certification. The Middle School scored 84 points overall. When we started the program, in our benchmark year of 2012, we scored a 63, so this is a very significant approval. Our second program was the Sustainable Jersey Schools program. In 2016, all nine schools in Long Branch, including the Middle School was awarded a Bronze certification. All schools will resubmit this year, but the Middle School is working towards a Silver Certification. In 2016, Sustainable Jersey for Schools awarded the Long Branch School District the first recipient of the "Saving Energy Makes Cents". Finally, we partnered with an outside vendor in 2011 to educate us on tracking all utilities in order to reduce our energy costs and have saved \$2MM to date.**

(e.g. [EPA Energy Star Portfolio Manager](#), [Eco-Schools USA](#), [PLT Green Schools](#), [Sustainable Jersey for Schools](#), and [NJ Learns](#)). (100 word max)

2. Has your school, staff or student body received any awards for facilities, health or environment?

Yes No Award(s) and year(s) [Energy Star Saving Energy Makes Cents 2016 and Bronze certification Sustainable Jersey for Schools 2016 and Energy Star 2016](#), [Alliance for a Healthier Generation, Bronze, USDA, Let's Move in Active Schools, Sustainable Jersey Green School Award \(all 2016\)](#)

3. Has your school identified or created a place for teachers to go to share lessons on Sustainability?

Yes No If yes, where? Media Center - _____

4. Has your School Board adopted a Green Strategic Plan or sustainability policy? Yes No Describe-Max 50 words [The board of education recognizes that responsible environmental stewardship is an integral part of its mission in ensuring that schools are well run. The board supports conservation and sustainable planning and operations, and shall endeavor to implement green initiatives such as a school and district green team, green cleaning, energy conservation, curriculum, community engagement, recycling, composting, waste management and sustainable practice in all day-to-day district operations. The district shall endeavor to engage all members of the school community in the conservation and green initiatives of the district.](#)

5. Has your school created a Green Team? Yes No If yes, list team members and their roles.

[Michael Vitarello, Principal](#)

[Evelyn Cruz, Principal](#)

[Dr Laurie Cancalosi, Supervisor, Physical Education](#)

[Jena Valeddevizio, Science Supervisor Grades 6-12](#)

[Neil Mastroianni, Science Supervisor Grade K-5](#)

[Jonathon Trezekowski, Special Ed Teacher/Gardens](#)

[Jil Careri, Teacher, Power Schools](#)

[Vade Hanlon, Teacher, Recycling Club](#)

[Gary Vecchione, Energy Manager](#)

[Ann Degnan, Facilities Manager](#)

6. Has your school seen a cost savings from green initiatives? Yes No If yes, input **cost savings** data into table:

	Electric Energy Consumption (kwh)	Natural Gas or Fuel Oil Consumption (therms)	Electric Utility Costs (\$)	Natural Gas Utility Costs (\$)	Total Utility Costs (\$)	Annual Savings (\$)	% Reduction from Baseline Year
FY12-13	3,625,459	7461.1	\$301,835.59	\$7,948.30	\$309,783.89	Baseline	Baseline
FY13-14	3,603,506	5440.3	\$336,640.89	\$6,338.31	\$342,979.20	-\$33,195.31	-10.7%
FY14-15	3,235,685	9944.9	\$282,082.84	\$9,731.88	\$291,814.72	\$17,969.17	5.8%
FY15-16	3,256,607	8233.8	\$285,423.77	\$7,696.71	\$293,120.48	\$16,663.41	5.3%

PILLAR I: REDUCED ENVIRONMENTAL IMPACT

Element 1A: Reduced/eliminated greenhouse gas (GHG) emissions. Use Portfolio Manager format if possible

7. Can your school document a reduction in **Greenhouse Gas emissions**? Yes or No Evidence in table below. Data obtained from _____ (Portfolio Manager, district utility bills, etc.), as reported by _____ (Vendor or School/District Personnel).

	Electric Energy Consumption (kwh)	Natural Gas Consumption (therms)	Fuel Oil Consumption (gallons)	Carbon Dioxide from Electric 1.52 lbs/kwh	Carbon Dioxide from Natural 11.7 lbs/therms	Carbon Dioxide from Fuel Oil 26.033 lbs/gal	Total # of Staff & Students	MT eCO2 /person	% Decrease from prior year
Example	100,000	15,000	5,000	100,000 x 1.52 = 152,000	15000 x 11.7 = 175,500	5000 x 26.033 = 130165	250	(152000+ 175500+ 130165) /250/1000 =1.83	
FY12-13	3,625,459	7461.1	0	5,510,698	87,295		1133	4.94	Baseline
FY13-14	3,603,506	5440.3	0	5,477,329	63,651		1180	4.66	6%
FY14-15	3,235,685	9944.9	0	4,918,241	116,355		1249	4.03	18%
FY15-16	3,256,607	8233.8	0	4,950,042	96,335		1248	4.04	18%

8. Has your school conducted an energy audit of its facilities? (e.g. [LGEA](#), [Eco-Schools Energy Audit](#)) Yes No
 Percent reduction: _____% Unit used (kBtu/sq ft or kBtu/student): _____ Time period: from _____ to _____

9. Has your school received [EPA ENERGY STAR certification](#) or does it meet the requirements for ENERGY STAR certification? (score of 75 or above) Yes No Year(s) and score(s) received: 2016 - score 84

10 Percentage of school's energy is obtained from on-site renewable energy generation: 43% Type Solar Purchased renewable energy: 0 Type _____

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy programs: (Ex. ACES) Yes No
 If yes, what programs? ACES

11. Has your school reduced its total non-transportation energy use from an initial baseline? Yes No
 How did you document this reduction? We track monthly utility bills through EnergyCap program and EnergyStar

	Electric Energy Consumption (kwh) 1kwh=3.412 kBtu	Natural Gas Consumption (therms) 1therm=100kBtu	Fuel Oil Consumption (gallons) 1 gal. = 139 kBtu	Total kBtu	kBTU/sq.ft.	kBTU/sq.ft.	% Reduction From Baseline
FY12-13	12,370,066	746,100		13,116,166	49.68		Baseline
FY13-14	12,295,163	544,000		12,839,163	48.63		2%
FY14-15	11,040,157	994,400		12,034,557	45.59		8%

FY15-16	11,111,543	823,300		11,934,843	45.20		9%
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12. What year was school originally constructed? 2005 Total building area (sq.ft) 246,000

13. Has your school constructed or renovated building(s) in the past ten years? () Yes (X) No

For new building(s): Percentage building area meeting green building standards: _____ Certification & level: _____ Total constructed area: _____ Which green building standard was used? LEED for Schools (LEED for Schools, CHPS, Green Globes or other)

For renovated building(s): Percentage building area meeting green building standards: _____ Certification & level: _____ Total renovated area: _____ Which green building standard was used? LEED Existing Buildings: Operation & Maintenance, CHPS Operations Report Card, Green Globes or other)

Element 1B: Improved water quality, efficiency, and conservation

Water and Grounds

14. Can you demonstrate a reduction in your school’s total water consumption (measured in gal/square foot) from an initial baseline? Yes X No _____ If yes, please complete the table below. If no, please explain. (max 50 words)

	Water Consumption (gallons)	Total Occupants	Gallons Per Occupant	% Reduction from FY 2011
FY12-13	1313,000	1133	1,159	Baseline
FY13-14	1,516,000	1180	1,285	-10%
FY14-15	2,086,000	1249	1,670	-40%
FY15-16	1,190,000	1248	954	18%

Do you include after-hour activities in your water consumption calculations? (adult sport leagues, adult education, scouting, other community events etc.?) Yes _____ No X

How did you document this reduction (i.e. Energy Star Portfolio Manager, utility bills) Utility Bills

15. Describe any strategies you use to discourage single-use beverage containers on school property. Describe how you assure the recycling of those containers if/when purchased and used at athletic locations, or other outdoor events. (Ex. Hydration Stations, bottle refilling fountains) We installed a bottle filling station in a water fountain outside the cafeteria area. We also added water coolers inside the cafeteria that allow for bottles to be refilled. We also have held several activities raising awareness of bottle recycling including collecting bottles to build a greenhouse in the courtyard next year.

16. What percentage of your landscaping is considered water-efficient and/or regionally appropriate? What types of plants are used and where are they located? Have you preserved any areas with native vegetation with minimal disturbance? (50-words max)

All the pervious area, 23%, landscaping is water-efficient. We use a smart irrigation system that senses when it is raining so that the sprinklers do not go on. Most plants that border the building are drought tolerant and native to the Jersey coast.

17. How have you incorporated native plants into your landscaping? (50-words max)

The plants in our courtyard are relatively maintenance free. The trees and bushes planted are native to the climate and weather for our area and selected for those reasons. We had a Master Gardener plan the layout of where to grow our fruits and vegetables. All the plants were chosen based on suitability for our climate and our policy not to use pesticides or fertilizers. Our classrooms use the soil from our school's garden when they need to use soil for their individual classroom projects. In the spring, these classroom plants are placed outside in the garden to get direct sun-light.

18. Describe alternate Non-potable water sources used for irrigation (e.g. roof or parking lot run-off). (50-words max)
LBMS has water collection barrels in the courtyard garden that provide some of the water needed for our vegetable gardens in the spring. These barrels have a dual purpose of diverting water buildup away from the building and collecting as much possible water to maintain vegetable gardens in the spring and summer months.
19. Describe efforts to reduce storm water run-off or reduce impervious pavement (e.g. rain gardens, bio swales, storm water basins). (50-words max)
The LBMS was built in mind that we are a coastal town with storm surges. During hurricane Sandy the structure was able to maintain drainage and no damage from flooding occurred. The Long Branch Middle School was used a staging area to the National Guard during Hurricane Sandy.
20. Our school's drinking water comes from: (X) Municipal water source () Well on school property (AKA a non-transient non-community water system) () Other :If well on school property, school complies with all monitoring requirements? Yes___ No___
- If well on school property, drinking water meets all applicable standards? Yes___ No___
Have all drinking water violations been corrected, if applicable? Yes___ No___
Resources: NJDEP Sampling & Regulatory Guidance for Drinking Water Systems (<http://www.nj.gov/dep/watersupply/dws-sampreg.html>)
NJDOE Lead Testing Regulations at N.J.A.C. 6A:26-12.4 with additional definitions at 6A:26-1.2 (<http://www.state.nj.us/education/code/current/title6a/chap26.pdf>)
21. Describe how the water supply for your school is protected from potential contamination. (Ex. Backflow preventers) (50-words max)
The school has two main water sources into the school. One is potable water, for drinking and sanitation and the second water source is for emergency fire suppression system. Both are 4 in lines and both lines are required by law and to comply with a backflow preventer on the line which is inspected and monitored yearly. (50-words max)
22. Describe the program you have in place to control lead in drinking water (e.g., pipe flushing, old plumbing solder). NJDEP Lead in Drinking Water – Public Water System Information (<http://www.nj.gov/dep/watersupply/dwc-lead-public.html>) (50-words max)
The school was built in 2005 with all safety concerns considered. No lead solder was used, no lead is contained in the faucets and all water is provided from a municipal water source which provides water quality tests yearly. We are participating in the lead water testing program through the DEP.
23. Describe how your school's site grading, irrigation system and schedule is appropriate for your climate, soil conditions, and plant materials, with an emphasis on water conservation and/or improved storm water management. (50-word max)
Our irrigation system is monitored for overwatering and also has sensors to shut water off during rain storms. Our Irrigation utilizes an underground well for irrigation only.
24. What percentage of school grounds are green space? (ex. Green roof, rain gardens, native plants, solar panels, fish farms, outdoor raised beds, living walls, wetlands/marsh, forest, grassland, etc.) 23% and list items (50 word max)
Long Branch Middle School has 23% of school grounds that are green spaces. The grass and landscape around the school accounts for 66% of the overall pervious area. The remaining 34% encompasses a courtyard in the center of the school. This courtyard is utilized as a garden and outdoor classroom.

Element 1C: Reduce waste production – Waste/Hazardous Waste

25. What percentage of solid waste (including food service waste) is diverted from landfills or incinerators due to reduction, recycling and/or composting? Complete all the calculations below to receive points.
- A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): LBMS has one 8 cubic yards waste dumpster that is emptied 5 times a week. The dumpster is 75% to 100% full each time of collection.

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): One 8 cubic yards of recycling waste that is emptied three times a week. The recycling dumpster is 100% filled with mostly cardboard boxes.

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected): 1 cubic yard per month

Recycling Rate = $((B + C) \div (A + B + C) \times 100)$: $_{((96 + 1) / (160 + 96 + 1)) * 100 = 49.23}$

Monthly waste generated per person = $(A/\text{number of students and staff}[1291])$: $160/1291 = .123$

26. What percentage of your school's total office/classroom paper content **contains at least 30%** post-consumer material, **or** fiber from forests certified as responsibly managed and/or chlorine-free? The school's toilet paper is comprised of 25% post-consumer material, 100% recycled, FSC certified, and chlorine-free. The school's paper towels are comprised of 50% post-consumer material, 100% recycled, FSC certified, and chlorine-free.

27. Do you include after-hour activities in your garbage reduction calculations? (adult sport leagues, adult education, scouting, other community events etc.?) Yes X No _____

28. Describe how you have reduced your paper consumption, and how you measured that reduction or other uses you created for the materials (e.g. working and reviewing online, white boards). (50-word max) LBMS is in the process of the reduction of paper consumption. In an effort to reduce paper many teachers are using Google Classroom. Paper has also been reduced by using online testing and quizzes in Link It rather than paper. In some classes and agendas are online instead of printing copies.

29. List the types and amounts of hazardous waste generated at your school: NONE

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
0	0	0	0	

How is this calculated? _____ How is hazardous waste disposal tracked? _____

30a. Describe other measures taken to reduce or eliminate solid waste and hazardous waste (on-site composting etc.). (ex. Switching to reusable cafeteria trays, silverware, etc.) (100-word max)

The Long Branch Middle has made an effort to removing solid waste by using reusable trays.

30b. Describe how electronics are handled at the end of their useful life. (TV, computers, laptops, tablets, printers, toner cartridges, etc) (50 word max) All printer and toner cartridges are sent back to the manufacturer for recycling. Once a new one is taken out of the box, the old one is returned in that same box. All electronic devices are recycled through the City recycling department

How many pounds of electronics did you discard as hazardous waste? 0

What was the weight of material reused? _____ Was any donated? Y ___ N _____

(E-CYCLE NJ: <http://www.nj.gov/dep/dshw/ewaste/index.html> EPEAT: <http://www.epeat.net/>)

31. Which green cleaning custodial standard is used? EPA Green Cleaning Standard

What percentage of all products is certified? 100%

What specific third party certified green cleaning product standard does your school use? Peroxy HDox

Describe the measures your school has taken to use only green cleaning product. We removed purchased green cleaning products once the supply of older cleaning products was depleted.

32. If your school has a nurse's office, how does the nurse track regulated medical waste? Describe the [tools or mechanisms](#) used to track this waste. Indicate (X) if you have the following:

- [_X_ School has a Generator ID number, unless exempted;](#)
- [_X_ School manages the regulated medical waste on-site properly? \(Use the proper containers, properly segregate the regulated medical waste, and properly store the containers\)](#)
- [_X_ School uses a licensed and registered regulated medical waste transporter, unless exempted?](#)
- [__ School ships the regulated medical waste to a facility authorized to accept the regulated medical waste?](#)
- [_X_ School completes the proper paperwork to document the shipment and maintain records for 3 years?](#)
- [_X_ School files the generator annual report, unless exempted?](#)

33. Is a Hazardous Waste Policy for storage, management and disposal of chemicals in laboratories and other areas with hazardous waste, in place and actively enforced? Yes [_X_](#) No [__](#) [MSDS sheets for all chemical are held in the designated location at Long Branch Middle School and denoted science staff are trained in proper chemical disposal yearly by Jena Valdiviezo the district 6-12 science supervisor.](#)

34. Do you have Underground Storage Tanks located at your School?

- Yes, Active. Are tanks properly [registered](#)? Yes [_X_](#) No [__](#) Are monitoring systems operating? Yes [_X_](#) No [__](#)
- Yes, Inactive. Are tanks buried? Yes [__](#) No [__](#) Are tanks scheduled for removal? Yes [__](#) No [__](#)
- None

35. Is your school compliant with the New Jersey Department of Environmental Protection's (DEP) Air Quality Permit requirement? (Equipment at schools that require air permits include boilers, emergency generators, space heaters and hot water heaters that have a maximum rated heat input of 1 million BTU/Hr or greater, to the burning chamber. Also, some schools might require an air permit for certain woodshop operations. Most of these pieces of equipment can be [permitted](#).) Yes [_X_](#) No [__](#) List Permits: [_Air Quality Permits for Boiler, Emergency Generators and UST__](#)

Element 1D: Use of Alternative Transportation

36. What percentage of your students walk/bike/skateboard, ride a school bus/use public transportation, or carpool (2+ students per car) to/from school? (Note if your school does not use school buses). How were these percentages collected and calculated? (50-word max)

[LBMS teachers were asked to survey students using Google Forms in order to determine their most common transportation method to and from school. 46% of students walk to school. 22% of students carpool, 20% bike or skateboard, 10% ride the public school bus, and 2% use public transportation or taxi.](#)

37. Indicate (X) if you have implemented the following. Descriptions up to 50 words may be added for each item.

- [_X_ Designated carpool parking spaces](#)
- [_X_ A well-publicized no idling policy that applies to all vehicles \(including school buses, cars and delivery trucks\) **Policy Number 7660- CONSERVATION, SUSTAINABILITY, AND GREEN INITIATIVES** and signs at the drop off and pick up zones.](#)
- [_X_ A policy that encourages walking and/or bicycling to school **Policy Number 8505- SCHOOL NUTRITION \(M\)** The Board of Education recognizes child and adolescent obesity has become a major health concern in the United States...The district shall implement this Wellness Policy that includes goals for nutrition promotion, nutrition education, physical activity, and other school-based activities that promote student wellness.](#)
- [_X_ Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows](#)
- [_X_ A Safe Routes to School program or a School Travel Plan. **Policy number 8600- TRANSPORTATION \(M\)**](#)
- [_X_ Walk and Bike to School Days **Most of our students walk or bike to school**](#)

- ___ A Walking School Bus program
- X Walking and bicycling safety curriculum [Policy number 8505- SCHOOL NUTRITION \(M\)](#)
- ___ Electric vehicle charging stations have been installed to encourage the use of these vehicles
- X Secure bicycle storage (such as bicycle lockers, racks, or rooms) is provided to encourage bicycling to school

39. If your school has only bus transportation, describe how your school transportation use is efficient and has reduced its environmental impact (e.g. more efficient bus routes, diesel retrofits for buses, use of biodiesel fuel, electric vehicles). (50-word max)

Only students that are over the 2 mile distance from school are bused to Long Branch Middle School therefore over 95% of the students walk or ride a bike to school.

Summary Question for Pillar 1

40. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100-word max)

The weekly Cafe run by the Special Education students in which they maintain, harvest, cook and sell healthy meals to staff members of Long Branch Middle School. This endeavor has gained ground in the last five years in which the students have able to produce a healthy cookbook with recipes produced from the garden along with selling the produce to the local community. Long Branch Middle School students have environmental sustainability imbedded into their everyday curriculum. The 6th grade students design and create farming equipment using the Little Bit Circuits appropriate for use on a another planet, debate endangered species regulations at zoos and monitor weather patterns. The 7th grade students take learning out of the classroom to visit the Philadelphia zoo, Franklin Institute and the U.S.S intrepid while writing argument based essays on synthetic products produced from natural resources. The 8th grade students are taking on research at Sandy Hook through the Sea Grant Organization on the environmental impact of the Sea Grass on the Dunes. This year a group of sixth, seventh and eighth graders are teaming up with New Jersey Natural Gas to learn how our school can reduce our energy consumption even more. They have audited all classrooms and educated the staff and students how to reduce the amount of energy used in the classrooms. Monitoring things like right lighting, temperatures, appliance power usage, window and door usage, and even simply shutting lights off when leaving a classroom has already begun to make a difference.

PILLAR 2: IMPROVE THE HEALTH AND WELLNESS OF STUDENTS AND STAFF

Element 2A: Integrated School Environmental Health program

Environmental Health

1. Has your school conducted any "Occupant Survey" with teachers and students? If so, please state the date(s) and over results of the survey. [\(CHPS Occupant Survey\)](#)

In lieu of a formal CHPS Survey our PowerSave selected student team has completed an Occupant Survey in our building in the form of an energy audit. In the month of November, teams of students audited each classroom and office in our building documenting Lighting (foot candles), Appliance (watts), Temperature, and the amount of time each was used. The team met and based on the information gave suggestions to each teacher or occupant of the offices. They are currently completing patrols around the building to monitor and maintain the suggestions that were made. Following these suggestions should result in lowering energy consumption in our building. The powersave team consists of 18 students and 3 staff members. Following their data compilation, students from this team will present their findings to the Board of Education and make suggestions for lowering the energy consumption and therefore cost in our building. The LBMS partnered with George L Catrambone throughout the power school energy audit.

2. Do you have an Operations & Maintenance Policy for your building? Yes X No _____

3. Does your school have an Integrated Pest Management plan? Yes X No _____ Date last updated: 2014 _____

4. Indicate (X) which of the following practices your school employs to minimize exposure to hazardous contaminants. Provide specific examples of actions taken for each checked practice.

- _X_ School conducts both indoor (structural) and outdoor (turf and ornamental) IPM to reduce student exposure to chemical pesticides.
- _X_ School reduces or does not use fertilizer on our property
- _X_ School prohibits smoking on campus and in public school buses
- _X_ School has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. [No mercury has been purchased since the opening of LBMS and all mercury thermometers have been replaced with alcohol thermometers.](#)
- _X_ School uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO)
- [GeoThermal Heating](#)
- _X_ School does not have any fuel burning combustion appliances (e.g. boilers, generators, hot water heaters) [GeoThermal Heating](#)
- _X_ School has tested all frequently occupied rooms in contact with the ground, and first floor rooms above basement spaces that are not frequently occupied for radon gas and has fixed and retested rooms with levels that tested at or above 4 pCi/L. [NJ Recommends School Radon Testing](#) _X_ Yes ___ No
- ___ School built with radon resistant construction features tested to confirm levels below 4 pCi/L. Yes ___ No _X_
- N/A Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure to this pesticide/wood sealing preservative.

6. Describe how your school controls and manages chemicals routinely used in the school, as well as construction or cleaning activity that produces odors or dust, to minimize student and staff exposure. (100-word max) [We have moved to a green cleaning set of solutions so little to no chemicals are utilized in the schools. Any construction work that produces odor or dusts ie painting, we perform after hours when staff and students are not present.](#)

7. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100-word max) [Our school is working towards an Asthma Friendly Certified School through NJPAC. We have always adhered to the structure of the program, however this year we are utilizing the tools from NJPAC to turnkey the training to Nurses and staff and will completed by February 2017. We also have our Nurse, Principal, Asst PRincipal all registered with Enviroflash to provide us alerts on air quality concerns.](#)

Is your school signed up to receive air quality alerts through [Enviroflash](#) which issues notifications of days when poor air quality is forecasted to occur? [Learn more](#) Yes _X_ No ___ [Our school is signed up to receive alerts through Enviroflash with notifications when poor air quality if forecasted. With these notifications we are able to modify and eliminate harmful exposure for our sensitive and affected students here at LBMS. Modifications on these days affect students time outside for physical education classes as well as outside science lessons. Alternative, safe options are provided for these students.](#)

Has your school developed a plan for implementation to modify activities to protect the health of students and teachers when poor air quality is forecasted? Yes _X_ No ___ [When poor air quality is predicted our school eliminates outdoor recess and physical education by providing safe alternatives indoors for all students. Large motor areas such as the gym and the two cafeteria can be used for gross motor activities as well as the use of the classrooms and hallways for space appropriate activities. Student's health is a primary focus here at LBMS and we take all necessary measures for the safety of our students and staff both inside and outside of the regular classroom. Staff is made aware of these days and appropriate precautions are taken.](#)

Have you provided [brochures](#) to students, teachers and parents to educate them about air quality and steps they can take to protect their health and decrease their contribution to ozone pollution? Yes _X_ No ___

8. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup any visible mold or remove moldy materials when found. (100-word max) [Our custodians and Maintenance staff take immediate action to clean the](#)

area and remove all water. At any time, if an area goes beyond wetness and turns to mold we immediately remove it - we respond during the same work shift to remediate the issue. This becomes a top priority to remediate any issue causing the growth.

9. Our school has installed local exhaust systems for major airborne contaminant sources. Yes___ No___ Describe (max 100 words)) Our School was designed and built by the NJSDA and utilized LEED For Schools as a basis of design. Each and every area has appropriate exchange of air including exhaust systems to eliminate major airborne contaminants.
10. Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly. (100-word max)Our level of maintenance on the unit ventilators has several layers. Our custodians maintain the air vents weekly. They also vacuum the units and replace the filters twice a year. The larger units are serviced by the maintenance staff. Our Maintenance staff, maintains the chiller tower and roof top units including changing the filters 4x's a year.
11. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with filtered outside air, consistent with state or local codes, or national ventilation guidelines. (100-word max) . Our school is new and was designed and built by the NJSDA and utilized LEED For Schools as a basis of design. We have the latest systems and design to meet all state and local codes. We maintain the system to run properly under those guidelines and hired an Energy Manager to assist in inspecting those systems to ensure they are running properly as designed. (100-word max)
12. Indicate (X) steps your school has taken to protect indoor environmental quality:
- ___X___ Implementing [US EPA IAQ Tools for Schools](#) and/or
 - ___X___ Conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action.
 - ___X___ Participating in the Pediatric/Adult Coalition of NJ's Asthmas Friendly Awareness Program
 - ___Other (max 100 words)Other [The Buildings and Grounds Department also maintains a procedure to investigate any reported air quality issue with 24 hours of the report. We also have a company on call to provide air quality reports as necessary and work in conjunction with the District Head Nurse to investigate any and all concerns reported.](#)
13. Indicate (X) if your school's green procurement practices pertain to the following: ([Buy Recycled](#) / [Buy Green](#))
- | | | |
|---|--|--|
| <input type="checkbox"/> ___Construction | <input type="checkbox"/> ___Fleets | <input type="checkbox"/> ___Office Supplies |
| <input type="checkbox"/> ___Carpets | <input type="checkbox"/> ___X___Food Services | <input type="checkbox"/> ___Paper |
| <input type="checkbox"/> ___X___Cleaning | <input type="checkbox"/> ___X___Landscaping | <input type="checkbox"/> ___X___Other (50 word max) Paper products such as paper towels and toilet paper are green |
| <input type="checkbox"/> ___X___Electronics | <input type="checkbox"/> ___X___Meetings & Conferences | |
14. What system do you use to determine if the above products and services are considered sustainable? (ex. DOE Purchasing for Energy Efficient Products, CHPS High Performance Database, Electronic Product Environmental Assessment Tool (EPEAT)_[DOE Purchasing for Energy Efficient Products](#)___

Element 2B: Nutrition and Fitness

Food and Nutrition, Fitness and Outdoor time

15. Which practices does your school employ to promote nutrition, physical activity and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships. (100-word max each)
- [___X___](#)Our school participates in the USDA's Healthier US School Challenge. Level and year: [We are currently applying to the USDA's Healthier US School Challenge, and we have attained the the Bronze Level for the Alliance for a Healthier Generation in 2016.](#)
- [___X___](#)Our school participates in a Farm to School program to use local, fresh food. [Yes, our school does participate in the Farm to School Program. Sodexo uses the distributor, Amprogi, that provides Fresh Produce Jersey Fresh to our student at LBMS. We](#)

also participate in the Fresh Fruit and Vegetables Program in which our students receive locally grown fresh fruit or vegetables two times a week as a healthy snack.

Our school has an on-site food garden that teaches nutrition and environmental education, describe. Yes, our on site Garden is located our court yard and tended to by our students and staff school wide. Our garden provides the foundation for the CAFE in which students produce healthy meals while supplementing the science curriculum with hands on experience.

Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. Our garden provides tastings for our students and the fruits and vegetables that are harvested are donated to our students in need as well as local food banks like St Vincent dePaul (Holy Trinity).

Our students spent at least 120 minutes per week over the past year in school supervised physical education. Our students are engaged in physical activity 150 minutes a week.

At least 50% of our students' annual physical education takes place outdoors. The students spend 25 minutes outside every day weather permitting during their Physical Education time.

Our school participates in the NJ Safe Routes to School Resource Center. Level and year: Assembly are given to provide students with safe route information.

Our school participates in International Walk to School Day in October or National Bike to School Day in May. Year(s): Over 90% of the Long Branch Middle school students are not bussed to school therefore participating in walking to school all year.

Our school has a School Wellness Policy that addresses both nutrition AND physical activity. Our Wellness Policy is located on our District Web Page under Policies and Information. District Policy #8505 and follows the Healthy, Hunger Free Kids Act of 2010 (HHFKA) standards for school lunch and breakfast. The Wellness policy has established goals for nutrition, nutrition education, physical activity and School-Based Activities.

Our school has a School Wellness Committee that meets at least once a year. During the school improvement monthly meeting student and staff wellness are discussed at times throughout the year.

Health measures are integrated into assessments. The nurse administers height, weight, BMI, blood pressure, hearing and vision screenings. The physical education teachers administer the FitnessGram tests which measure muscular strength and endurance, cardiovascular endurance and flexibility. The FitnessGram results are charted and kept on each student while in our school and later passed onto the middle school to show growth and identify any at-risk students.

At least 50% of our students have participated in the EPA's Sunwise, or equivalent program. While our students have not participated in the sunwise program approximately 100% of our students have participated in the 6th Grade science curriculum. In the 6th grade science curriculum, students learn about the sun and the effects UV rays have on people. They track average hours of sunlight for a year and graph the results. Students use this information to design shelters that block UV radiation for use on a distant planet.

Some food purchased by our school food service is locally sourced from regional farms. Yes, our food services department works to get locally grown produce from Jersey Fresh farmers. We had apples and squash that were locally grown that were d by our school food service is locally sourced from regional farms.

16. Is school lunch waste composted on-site? Yes ___ No ___ Percent _____ How is it used in your outdoor classroom?

Not at this time but a small amount of compost is used in the life skill classroom (the location of the weekly CAFE) to produce nutrient rich soil for small sections of the garden.

17. What environmental technologies are used with curriculum? (weather station, energy monitoring system, GIS, web cam, etc) Draker Labs At LBMS we are able to use the environmental technologies from Draker Labs to enhance our curriculum. Through our website and Draker Labs we can monitor the energy usage of each early childhood, elementary, middle and high school in our district currently using solar energy. We are also able to monitor and learn from a weather station through this technology.

18. Describe the type of outdoor education, exercise and recreation available. (100-word max) We offer Health and Physical Education to all students. Each student receives one 35 minute Quality HPE class once a week. Quality PE provides students with a multitude of important learning experiences that cannot be duplicated in the classroom. Physical Education is that phase of education which is concerned with the teaching of skills, improving physical fitness, the reinforcement of other subjects, self-discipline, leadership and cooperation, enhancing self-efficacy, stress reduction, and strengthening peer relationships. Physical Education is more than running, calisthenics, or sport. It is a total movement experience that focuses on fun, involvement, character, self-esteem, health and fitness, and total well-being for our students. It is an essential part of every day to live long, healthy lives.

Coordinated School Health, Mental Health, School Climate, and Safety

- 19. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? Yes No If yes, describe the health-related initiatives or approaches used by the school: **We employ a District Head Nurse that oversees all the coordination of programs and offerings to the students. She coordinates all of our physical, mental and family activities and counseling. She also coordinates all activities with communicable diseases, pediculosis, and bed bugs. She also oversees the Asthma program and all activities associated with the school nurse**
- 20. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health, school garden education and/or safety? Yes No If yes, describe these partnerships: **Our District Head Nurse coordinates our activities with LB BOH, Monmouth Medical, Local FQHC, Prevention First, Dept of Child & Families, Mobile Dentists, Prevent Child Abuse of New Brunswick, MM /St. Barnabas Foundation, Crisis Unit @ MM, School Base Youth Services from Dept of Child & Family, County YMCA Counseling of Matawan (in 7 bldgs/ MEDICAID). We also are working with Sodexo as a partner on Nutrition in the gardens**
- 21. Does your school have a school nurse and/or a school-based health center? Yes No
- 22. Describe your school's efforts to support student mental health and school climate (e.g. anti-bullying programs, peer counseling, etc.): **School Climate and mental health are addressed through a myriad of school wide systems and programs. The School Safety Team, led by building Anti Bullying specialists educate all stakeholders regarding policy and procedure. Anti Bullying programs, activities and curriculum are also proactively in place to support a healthy school climate. In addition to this, Intervention & Referral Services (I&RS) teams address all behavioral, health and counseling requirements for identified students.**

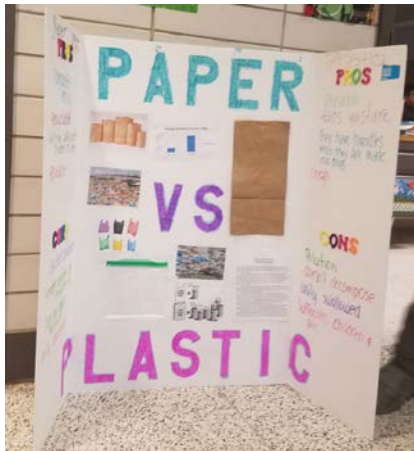
Summary Question for Pillar 2

- 23. Describe any other efforts to improve coordinate health and safety, nutrition and fitness, highlighting innovative or unique practices and partnerships. (100-word max) **The District has always put forth a lot of effort to assist students in their endeavours and challenges they may face. About 4 years ago, LB also turned their focus to the staff and now offers a Health Center on campus providing access to a Dr or PA 7 days a week for staff and their families. The Health Center also provides some medicines to staff, as well as an x-ray machine, blood lab, physical therapy and Chiropractic care and yoga classes. The services are provided to staff in order to increase the overall wellness of our staff.**

PILLAR 3: EFFECTIVE ENVIRONMENTAL AND SUSTAINABILITY EDUCATION

Element 3A: Interdisciplinary learning that prepares students to navigate the key inter-relationships between dynamic physical and social systems (E/S literacy) is documented, assessed for and mapped.

- 1. Indicate (X) which practices your school employs to help ensure effective environmental and sustainability education. Provide examples of actions taken for each practice, highlighting innovative or unique practices and partnerships.
 School has an environmental or sustainability literacy requirement. (200-word max)
 Recurring environmental and sustainability concepts are integrated widely throughout an interdisciplinary curriculum. (200-word max)
LBMS has recurring environmental and sustainability concepts integrated throughout an interdisciplinary curriculum. For example, science, social studies, and language arts work together to teach environmental awareness and sustainability. Lesson examples are paper verses plastics, alternative reusable containers, increased awareness of recycling program, harmful chemicals in our food, and much more. Students research the positive and negative affect of paper verses plastic in the stages of production and waste. Students then evaluate the effectiveness of each to society. Student will write to the companies who make the alternatives to plastics. In science class students will make alternatives to cups and having a holiday party with those cups to demonstrate the practicality and sustainability concept. (Jolly Rancher, Jello cups and mint cups) One of the project is creating posters on how to recycle here in Monmouth County, NJ. This project is being done in conjunction with the Long Branch Public Works Department, Buzz Baldanza. The following link is what students are using to help with their project, file:///C:/Users/vhanlon/Downloads/Recycling%20Guide_2015_16%20(1).pdf .



<https://docs.google.com/document/d/1yIYbWQMi2yCrOMTr5mVsd6FYvDsz1YvZDj6JhPJtq2Q/edit#heading=h.gjdgxs>

X Student learning of environmental & sustainability concepts is evidenced by authentic assessments. (200-word max)

Student learning of environmental and sustainability concepts is evidence by authentic assessments using various methods. Students write Short Constructed Responses (SCR) to various writing prompts linked to environmental and sustainability concepts. Students' letters to companies who make alternative plastics are all graded as a SCR as well. Students discuss issues on websites of the videos watched with all the alternatives. Alternatives to cups using Jolly Rancher, Jell-O cups and mint cup that will be used during a holiday party will be assessed. Posters created on how to recycle here in Monmouth County, NJ will be judged along with the Long Branch Public Works Department, Buzz Baldanza. GMOs BPAs and PSFAs - and how chemicals in our foods and plastics can be harmful project is an assessment done during a debate on the GMOs and pros and cons of them.

X Students evidence high levels of proficiency in these assessments. (100-word max)

These assessment are part of the LBMS science curriculum and are an intergal part of all science teachers Student Growth objectives. Last year 80% of the students produced a 70% achievement on the rubric for these various assignments.

X Professional development (PD) in environmental and sustainability education (E/S) are provided to teachers.

X Describe the PD in which faculty or administrators participated and how it contributed to the implementation of your E/S Goals. When was the PD held? Who attended? (200-words)

Professional development was provided by Project Learning Tree regarding environmental and sustainable education in the fall of 2014, spring of 2015 and fall of 2015. Sustainable NJ and Power Schools provided environmental and sustainable PD during the spring and fall of 2016. The professional development was attended by staff from every department along with Long Branch Middle School administration, district science supervisor and central office facilities manager. This PD served as a backbone in developing the Next Generation Science Curriculum adopted by the board of education October 2016 with interdisciplinary project based learning on environmental impact in all grade levels.

X Environmental/Sustainability Education is offered in after-hour school programs (200 words)

LBMS offers an after school program that focuses on environmental issues. The Environmental Club meets on Thursdays. Students are educated and investigate ways to reduce waste, energy consumption, and carbon dioxide. They watch videos and have discussions on how we can change our school atmosphere to be green. Students audit classroom to track data of each room's energy consumption. They track the amount of lighting, energy, and temperature used in each classroom. The baseline data are shared with teachers and students will continue to monitor during the school year to track improvements on reducing energy. The Environmental Club also tracks the amount of recycled products created in our school. Students create signs and announcements to make everyone aware of how to be green. They monitor that recycled materials are being properly disposed. They periodically check that custodians are also disposing recycled materials

appropriately. The Environmental Club works to create awareness of our environment by working with the Long Branch Environmental Commission and the art department to create a poster contest. They work with the town of Long Branch to clean up our community. The Environmental Club goes out to various locations in town to clean up the trash left behind.



Element 3B: Use of (E/S) to prepare students for career pathways and to develop STEM/STEAM content, knowledge, and thinking skills.

2. How does your school use sustainability and the environment as a context for learning science, technology, engineering [art] and mathematics (STEM/STEAM), thinking skills and content knowledge? (200-word max)

Sustainability and the environment are a large presence in student's daily science lessons, as well as the STEM and Art programs we have for every student at LBMS. In the 6 - 8 science curriculum students are solving real world problems following an engineering design process for example: These projects are inline with the NGSS Performance Expectation evidence statements

- *mimicking nature to create a tool to be used for gardening on another planet*
- *researching alternative renewable energy sources and ways to connect them*
- *researching the effects of the sun / designing shelters on another planet*
- *discovering the power of wind as a source of energy to complete a task*
- *finding unique ways to conserve energy and water*
- *Using multiple types of recycled materials both mandated and not to explore art*
- *Creating art with an Energy theme*
- *research the need for seagrass along the coastline*
- *arguing with evidence the pros and cons of synthetic material from non/renewable resources*

Students here at LBMS are exposed to environmental safeguarding and education daily through instruction of content knowledge as well as critical thinking and reasoning skills. They are challenged to solve problems by working together to find solutions to issues that face the globe today. We are working to educate students for the impact they will have on the world and what they can do to become responsible environmentally aware citizens.

3. How does your school use sustainability and the environment as a context for learning green technologies and/or career pathways?
Please describe student performance criteria and assessment results (200-word max)

Students are provided with hands on experience using and building green technologies in order to learn about sustainability and the environment. Our students were charged creating machines to assist the human race on another planet. These activities incorporated not only math and science skills, but also allowed students to act as project managers and contributing team members of the LBMS community. The K -12 curriculum begins in Kindergarten exposing students to all career paths, students can choose to follow a specific career path as they continue with the curriculum through Grade 12. Formative and Summative assessments are used throughout the STEM and science curriculum with the majority of students meeting or exceeding the NGSS standards.

4. How does your school address teaching the science of sustainability in your K-12 scope and sequence? What science standards do you target? What evidence of student learning are you assessing for and monitoring in this area?

Next Generation Science Standards are implemented across all grade levels K -12. Students are assessed in these standards both through unit Science tests as well as classwork, participation in discussions, and projects they complete in groups and individually. We include sustainable lessons for each grade level as they link to their specific standards.

Percentage of last year's eligible HS graduates who completed the Environmental Science / Earth Systems (or similar environmental course) during their high school career: ___N/A_____

Element 3C: Development and application of authentic civic engagement knowledge, skills and dispositions through place based learning experiences (project-based/service) and community partnerships

5. Describe students' civic/community engagement projects integrating environment, environmental justice ([as defined by EPA](#)) and sustainability topics. (200-word max)

As Defined by the EPA, students of LBMS are engaged in a civic project that is addressing the environmental injustice of Native Americans. 8th and 7th grade students are writing meaningful letters to ask our newly elected President to intervene on behalf of the Standing Rock Sioux Native American Tribe in North Dakota. Students are researching the environmental impact of the pipeline on the land of the Sioux Tribe and the continued social injustice of the Native Americans. "Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies." (<https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>) Investigation of the North Dakota Pipeline allows students to learn of the unfair treatment of Native Americans verses more affluent white Americans by rerouting the pipeline from its original location. Students will also address the environmental impact that already have occurred from pipeline leaks that potentially may harm the land of the Sioux.

LBMS also works to create awareness of our environment by working with the Long Branch Environmental Commission and the town of Long Branch to clean up our community. The Environmental Club goes out to various locations to clean up trash left behind.

<https://docs.google.com/document/d/1jT8RYRUIMJ7k1UKg0IMyQDFIsCaBLPRRBHrJV9dnMxY/edit?ts=583d73d8>

<https://docs.google.com/document/d/14X0le-Huo2rHHNe5wc6j06b1buXYismEdUGKPxikqOI/edit#>

6. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (200-word max) (ex. citizen science, field trips, overnight camping, retreats)

The center of the building (courtyard) where the garden is maintained has space for teachers to have lessons during the school year. In addition to onsite outdoor learning the Long Branch Middle school students have to opportunity to learn in a variety of settings such as museums, zoos, civic center, parks and the beach. Instead of the traditional learning outdoor learning gives the teachers the ability to make learning more engaging, relevant, nurture creativity and imagination, develop learning through play and experimentation, develop interest in the environment and wider surroundings and expose children to new opportunities. In Long Branch Middle School students do not only learn in the classroom but they learn in surrounding community. Even at times when the students cannot leave the classroom. The curriculum is globalized by google virtual field trips through google expeditions and skyping with other classrooms throughout the year.

7. Describe students' outdoor learning/ place based learning experiences at every grade level. (200 word max)

6th Grade students in the Social Studies classroom skype with students in Africa to bridge the gap and breakdown the walls of the classroom. The 6th grade science teachers implement project based learning in projects throughout the curriculum from developing a sustainable environment on another planet, building sustainable structures from natural disasters and weather sensors. The students in the science classroom test their designs and model in community by building miniature greenhouses, testing the miniature houses along the coastline and testing of the current weather.

7th Grade science students experience learning at the Philadelphia Zoo, the Franklin institute and the U.S.S Intrepid. In addition cross curriculum writing prompts between science, social studies and English Language Arts are an integral part of the curriculum in which the students argue with evidence environmental impact issues facing the Long Branch community.

8th Grade students participate in the New Jersey Sea Grant Consortium which promotes the wise use of New Jersey's marine and coastal resources through research, education, and outreach. The Consortium provides equal opportunity for all New Jersey students and citizens to learn about the marine environment.

8. Describe how your partnerships help your school and other schools integrate the 3 Pillars into the curriculum, student learning and school culture. Include both the scope and impact of these partnerships. In what ways is your school sharing & promoting (outside of school) its efforts to uphold all 3 Pillars? (Maximum 200-words) (Ex. student exchange forum, sister school program, global project based learning program, state-wide professional learning communities)

The Long Branch Middle School partners with George L Catrambone school in terms of articulation from 5th grade to 6th grade as many of the significant partnerships are carried from elementary school to the middle school. One of our most significant partnerships is with Providing Hope. This organization, which strives to build strong communities, helped us plan and begin our sustainable garden. They also helped with our harvest by donating to families in need, both in our district and the larger Monmouth County community. The harvests from our garden were also sent to the St. Vincent de Paul food pantry that is run by our local church, Holy Trinity. As the children cultivate the crops, they understand that the food we grow goes on to help our local people in need. Additionally, we are partnered up with New Jersey Natural Gas through the PowerSave Energy Program. Staff and students are working to find ways to save energy and money in our school. The Power Team has conducted energy audits and consultations to educate teachers how to use less energy in the classroom. Through our partnership with Sodexo, students receive nutritional education with the Fresh Fruits and Vegetables program. Each week healthy eating habits are promoted through the sampling of fresh produce. Our final partnership is with Clean Ocean Action of New Jersey which provides Ocean Pollution and Protection Education to both students and staff.

Summary Questions for Pillar 3

9. Describe any other ways that your school integrates all three pillars into curricula, student learning and school culture to provide effective environmental and sustainability education. Highlight innovative or unique practices and partnerships. (Maximum 200-words)

Our school provides STEM classes to all grades through a course called, Project Lead the Way. Students participate in investigations that encourage creativity and critical thinking skills that can be utilized to enhance our Math and Science lessons on conservation and the environment. The 6 - 8 science curriculum is enhanced with project based learning assignment the exemplify the Performance Expectations of the Next Generation Science Standards. In our Library makerspaces are held for all grade levels during lunch, the teacher provides students opportunities to build and create with recyclable and reusable materials. Students enjoy reusing items to create their own inventions and contraptions which helps students see the value of recycling. We include many guest speakers and assemblies throughout the school year focused in recycling, deforestation, marine pollution, energy consumption and reduction, and sustainability. Open ended project based learning includes solar panel discussion in math to use in gardening and cooking and that is just the beginning. With student, staff, and district level green teams the possibilities we have for implementing a change are endless.

10. How are your descriptions in number 8 supported or enhanced by your efforts in Pillar 1 to reduce environmental impact and costs for your school.

Our gardening program with partners Providing Hope, teaches students the benefits of growing your own food. With so many pesticides and unhealthy food choices, our sustainable garden ensures freshness and quality. This program educates our students on the value of composting, nutrition, and ways to help the community through St Vincent de Paul food pantry, with minimal cost. It instills responsibility and teaches lifelong skills that students will be sure to use in the future.

Through Sodexo, our students are tackling nutrition head-on while, The PowerSave Team creates awareness and opportunities for staff and students to save energy, while instilling more energy-efficient habits that will benefit the environment as well as decreasing our costs at home and at school. We are consistently working not only to save money but to reduce our impact and make a greener tomorrow.