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 early learning to 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 and sustainability 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.
8. The school or its district has in place and is willing to provide a link to or a copy of a non-discrimination policy, upon request. The U.S. Department of Education reserves the right to disqualify a nomination and/or rescind an award if unlawful discrimination is later discovered.

U.S. Department of Education Green Ribbon Schools

Name of Principal: *Mr. Sean McComb*
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: *Lutherville Laboratory*
(As it should appear on an award)

**Private Schools: If the information requested is not applicable, write N/A in the space*

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

(Principal's Signature)

Date: *December 4, 2023*

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

District Name: *Baltimore County Public Schools*

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

(Superintendent's Signature)

Date: *12/6/2023*

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.

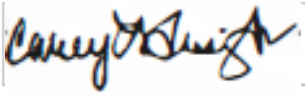
1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and 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: *Maryland State Department of Educations*

Name of Nominating Authority: *Carey M. Wright, Ed.D.*

(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.



(Nominating Authority's Signature)

Date: *2/8/2024*

SUBMISSION

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: December 31, 2023

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.

Summary Narrative: Lutherville Laboratory, Baltimore County Public Schools, Maryland

The Mission of Lutherville Laboratory is to be "an engaged, diverse, and connected community, united in our commitment to nurture in every child harmony and respect in themselves, with others, and for the world around us, thus empowering children with a lasting foundation to pursue excellence in future endeavors." Central in that mission is nurturing "being in harmony and respect with others and the world around us," which has long been a tradition at Lutherville Lab and brings us to this application for U.S. Department of Education Green Ribbon Schools consideration.

Our building first opened in 1954 as the first new school in an integrated Baltimore County Public School system. Lutherville temporarily closed from 1983-1993 and re-opened as Lutherville Laboratory in 1993 as a magnet elementary school for Math, Science and Communications. For 25 years, this emphasis planted a foundation for educating "citizen scientists" that holds deep roots in our veteran staff, our programing, and our school vision. The magnet program phased out in 2017, however, the roots hold, and Lutherville Lab continued achieving and growing as a Maryland Association for Environmental and Outdoor Education (MAEOE) Green School. First certified in 2004, we have re-certified every four years and in 2022 achieved Bronze Sustainable Status, the only elementary school in Baltimore County (the 25th largest district in the US) to achieve that status.

Our roots continue to yield growth in green practices that are still central to our students' learning, our school programming, and our school identity, today. Lutherville Lab is very proud that our school features:

- Newly increased efforts to live harmoniously with the world around us. In spring of 2023, each homeroom planted and adopted one of **21 new trees on our campus**. The species ranged in diversity from 3 type of Oak to Elm, Kwanzan Cherry, Linden, London Plane, Redbud, and Sweetgum. Using the conservative estimates from OneTreePlanted.org, this project will help consume 462 pounds of carbon dioxide per year over the first 20 years of their growth.

- Impactful **waste conservation program in our cafeteria** began this fall. We are now composting food waste and making a concerted effort to increase recycling in our cafeteria. This has reduced daily trash by over 78%. We have reduced from using 9.8 sixty-four-gallon trash bags per day in the spring of 2023 to 2.2 bags per day of trash now in the fall of 2023. Meanwhile, an audit of our recycling dumpster shows an increase of recycling fill rate from 62.5% in the spring of 2023 to 78.75% in the fall of 2023.

- **Interdisciplinary, project-based learning** in every grade-level to understand our environment and its intersection with human systems to develop skills and understanding in STEM:
  -Kindergarteners dissect, identify, and label parts of a bean prior to visiting the Baltimore County Agricultural Center.

-1st grade students compare observations of the day and night skies and learn about light pollution.
-2nd grade students learn about causes of erosion and mitigation efforts and connect that learning to communities sinking in the Chesapeake Bay.
-3rd grade students conduct a stream study and propose solutions and practices for improvement, connecting that learning to releasing trout in a local river.
-4th grade students study renewable and non-renewable sources of energy, develop, and present prototypes for redesigning common objects or appliances as creators of renewable energy.
-5th grade students investigate the biodiversity in our schoolyard, discovering organisms – even the microscopic – and researching their characteristics and interconnection.

- Extensive **before and after school programming** to develop STEM knowledge and address issues of sustainability and environmental issues. More than one-third of our student body are members of the Garden Club, tending our learning garden and working with our partners in the Garden Club of Lutherville. We also have a robust and active Environmental Club who staff our Green Duck Patrol (which ensures the quality of our recycling program at Lutherville) and engage in numerous other student-led environmental initiatives at our school, such as vermicomposting, raising trout, and growing greens with a tower garden. To support students social, physical, and psychological wellness, we also offer a running club – Lutherville Lappers – a Drama Club, Steel Drum Band, Communications Club, Dance Club, Art Club, Math 24 Club, Battle of the Books, Kindness Club, Club Friends, Coding Club, and Early Bird Physical Education.

- To support our environmental science efforts as well as student wellness, we have actively developed **many partnerships**. We partner with two local nature centers – Marshy Point Nature Center and Oregon Ridge Nature Center – as well as the Baltimore County Agricultural Center for teacher professional learning and content-aligned field trips. We have longstanding partnerships with Trout in the Classroom for raising and releasing rainbow trout and the Lutherville Garden Club to mentor our young gardeners. And we have developed partnerships with a mental health provider and two local colleges to provide our students with increased psychological support and social mentoring. We also partner with the Baltimore Hunger Project to send students experiencing food insecurity with Friday food bags to help sustain them over the weekends. Other partnerships include Boys Scouts and Girl Scouts of America, Williams Company, Department of Natural Resources, and the Education Foundation of BCPS.

- Prioritizing our **staff and students' health and wellness** through intentionality in connection, relationships, and tiered support. We survey students throughout the year to give us data to ensure all students feel connected to at least four trusted adults; we have student mentoring programs internally with staff and externally with a local college; we use structured tiered intervention to align support to student's needs. For 17 years, Lutherville students have

participated in Jump Rope for Heart, a learning and awareness program for the American Heart Association, and also trained for and participated in an annual fun run, the Turkey Trot.

- We have cultivated our **campus** with a monarch meadow, outdoor classroom, 4000-square-foot learning garden, and a storm drainage pond, each developed and nurtured hand-in-hand with our students and community partners. Our **facilities** have undergone improvements through an Energy Performance Contract initiated in 2015 to become more efficient. This included Building Automation System (BAS) upgrades, low leakage dampers installation, and the enrollment in a Demand Response program, resulting in $13,000 in energy cost avoidance at Lutherville. Within this contract, lighting fixtures throughout the building were upgraded to high efficiency lighting fixtures, removing all incandescent lamps, and installing occupancy sensors throughout the facility. Lutherville Lab was also included in a second Energy Performance Contract that upgraded all exterior lighting in 2017. Our school is monitored through an ongoing Indoor Environmental Quality Program that governs improvements to our HVAC equipment, monitoring of air quality, and reporting and addressing concerns.

These programs, practices, and partnerships are extraordinary for any comprehensive elementary school. What is more extraordinary, and where we place growing pride at Lutherville Lab, is that we do all this while serving a wider range of student. In 2019, Lutherville became a site of service for BCPS with a Regional Social-Emotional Learning (RSEL) Program. This program supports children who, through the IEP Team process, have identified emotional and behavioral needs that exceed what can be met in a comprehensive school setting and indicate they need the benefits of a self-contained, smaller-class size, increased therapeutic environment, and crisis intervention. Through serving this group of students, our pursuit of “living in harmony and respect together and with the world around us” now lives in us with a more pronounced sense of wellness and inclusivity.

As we have grown as a school and community with our program, our students have taught us the necessity to emphasize health and wellness throughout our school and the necessity to include our students in the RSEL program in our school holistically, with an emphasis on the engagement, connection, and healing that comes from working in nature with the environment. Shoulder to shoulder with general education students, our RSEL students – who have all experienced being marginalized and removed from another school -- participate in raising and releasing monarch butterflies on our campus and wade into a local river to release trout raised from eggs in our aquarium. They put their hands into the earth as some of the 131 members of our Garden Club. They attend our field trips to the agricultural center and nature centers to experience their environment in new ways.

At Lutherville, our efforts with environmental literacy and living in harmony are not simply academic, they are our common thread – a reminder that it is nature and our relationship as humans with the world around us that unites us across our differences. And it is our collective effort to nurture that relationship, the humility to learn about and from the earth, and our curiosity and commitment to sustain living in harmony, that drives us forward – together.

It is in this spirit that we carry our school motto – “Minds On. Whole Hearts. All IN!”

Narrative for Pillar I: Reduced Environmental Costs and Impacts

Element 1: Reduced or eliminated greenhouse gas emissions (GHG), using an energy audit or emissions inventory and reduction plan, cost-effective energy efficiency improvements, conservation measures, and/or onsite renewable energy and/or purchase of green power;

In 2015, Lutherville Laboratory ES was one of several BCPS facilities selected under an Energy Performance Contract where multiple energy conservation mechanisms were installed to improve the energy management and performance of the building. These mechanisms included a high efficiency air conditioning system installation, heating distribution system pipe and valve insulation, Building Automation System (BAS) upgrades, low leakage dampers installation, and the enrollment in a Demand Response program. With these energy conservation measures installed, BCPS has avoided over $13,000 annually in energy expenditures at this facility.

Additionally, within this Energy Performance Contract, lighting fixtures throughout the building were upgraded to high efficiency lighting fixtures, removing all incandescent lamps, and installing occupancy sensors throughout the facility. Lutherville Laboratory ES was also included in a second Energy Performance Contract that upgraded all exterior lighting in 2017.

Element 2: Expanded use of alternative transportation, through active promotion of locally-available, energy-efficient options and implementation of alternative transportation supportive projects and policies.

Lutherville is located on a main corridor in our community and adjacent to a 4-lane road. For safety, this limits walking and promotes our students' use of busses. Currently, 82% of students at Lutherville ride bus transportation to and from school each day.

In recent years, we have also made an effort to promote alternative methods of transportation and limit individual car-riding to school. In 2021-2022 we implemented an activity bus as alternative transportation for students staying after school for enrichment and tutoring activities.

In addition, we have promoted bike riding and walking to school. We installed two bike racks on our campus, our Physical Education teacher cycles to school three times per week. We also promote car-pooling for families through our registration process for car-riders, which encourages families to list neighbors and other families for students to carpool together.

Element 3: Improved water quality, efficiency, and conservation

We promote water conservation at Lutherville Lab through students and staff personal practice. This is mainly through the use of water bottles, which are a part of annual student supplies and provided to students who do not or cannot bring their own. Approximately 90% of students use water bottles at Lutherville Lab. This has significantly reduced the use of paper cups and has also reduced our overall water use.

A storm drain pond was installed on campus in 2007 to maintain native plants and help erosion and run off from York Road. Our school researched and supplied native species for the drain pond area that can help with the water conservation as well as other positive effects such as habitat for monarch butterflies.

Our school also makes efforts to educate and engage our students in water quality and conservation efforts on our campus and in the wider community. In December 2020, our students stenciled the storm drains on and around our school property to note the connection to the Chesapeake Bay and limit dumping and blockage. Students also painted 12 rain barrels May 2013 and distributed them to the community to promote water conservation. Each barrel conserves 30 gallons of water.

In Spring 2022, Lutherville Lab partnered with our community and local government on a tree-planting project for our campus. We placed 21 new trees on our back fields in March and each homeroom finished the planting, adopted one as their own, and monitored and cared for it that spring. Using the conservative estimates from OneTreePlanted.org, each tree will account for 22 pounds of CO2 absorbed annually. As a collective, these trees will absorb 462 pounds of CO2 each year. Additionally, each tree will produce foliage to intercept rainfall and reduce runoff and absorb and filter water that reaches the soil. The planting process itself was an educational activity, as classes learned about the native species of their tree and their individual qualities.

Element 4: Reduced solid and hazardous waste production through increased recycling, reduced consumption, and improved management, reduction, or elimination of hazardous waste.

Lutherville has put significant effort into programming to increase recycling and reducing waste. Uncomfortable with the amount of waste coming out of our cafeteria, in school year 2022-2023, we committed to implementing a cafeteria waste reduction program. Our Green School team and Environmental Garden Club students collaborated to educate our students on the new process for this year and phase in the process. As of November, all students K-5, throw away trash items, pour out liquids, recycle trays and recyclables, and compost food waste each day in our cafeteria.

In doing so, we have made great impact. We have reduced our daily trash from the cafeteria from 9.8 bags (64-gallon) of trash to 2.2 bags per day – a 78% reduction of waste going to landfills. Part of that effort is the collection of food waste. As measured by our vendor partner, Veteran's Compost, Lutherville Lab has collected 1600 pounds of food waste in September and 1800 pounds in October. Because this waste is now processed into compost, we've avoided 6.92 metric tons of CO2-e greenhouse gases entering the environment over those two months alone. Our paper cafeteria trays are in the recertification process to be eligible for composting in the near future, which will allow us to further reduce waste and increase positive impact.

We have also seen an increase in our recycling output. Baltimore County Public Schools conducted a waste audit that included recycling. Over a four-week period in the spring of 2023, our recycling dumpster averaged 62.5% of capacity at pickup. Over an eight-week period of monitoring this fall, the recycling dumpster averaged 78.75% of capacity at pickup. Filling the dumpster another 16.25% represents an increase of our recycling output of more than 25% of last school year's amount.

Increasing quantity and quality of recycling has been a significant and ongoing focus at Lutherville for years. Our environmental club has institutionalized the “Green Duck Patrol,” a student group who visit classrooms and offices to inspect the quality of recycling decisions, issuing a green duck to those recycling well and feedback to those who need to improve their practices.

Each classroom has incorporated students’ classroom jobs to promote reduced consumption and improved recycling. The classroom electrician ensures that lights and devices are turned off when not in use. Recycling rangers inspect classroom recycling and give feedback to their class. In the cafeteria, we have instituted a “Share Table” where students can place unwanted, unopened food items from the cafeteria, which others can take if they are hungry. Similarly for the cafeteria, on Earth Day in 2022, students personalized cloth napkins to use in the cafeteria and reduce use of paper napkins. Lutherville students and staff were leading voices in advocating for the school system switch over from Styrofoam, non-recyclable trays to paper trays that decompose.

Finally, Lutherville practices quarterly campus clean-ups. Students canvass the grounds – inside and out – to find waste and collect it to dispose of it properly. Teachers lead debriefing conversations to help students consider how their personal practices and our school practices can improve to limit and control waste.

Narrative for Pillar II: Improve Health and Wellness

Element 1: An integrated school, district or postsecondary institutional environmental health program based on an operations and facility-wide environmental management system that considers student, visitor and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of buildings and grounds;

Lutherville Laboratory takes a holistic, integrated approach to health and wellness with a universal approach to our facilities and grounds and a tiered approach to student and staff physical, mental, and emotional health and wellness.

The campus and grounds of Lutherville Laboratory follow a holistic approach to environmental health and safety. In 2002 Lutherville built and developed, and continues to currently maintain, the Ann Hanna Learning Garden. This 4,000 square foot space is maintained and cultivated by a coalition of students, staff, community members, and partner organizations. The garden is a hub of our environmental learning. It is where our 112 garden club members cultivate the earth and native plants to support biodiversity, it is where primary students read on beautiful days, it is where students with emotional needs take proactive breaks and plant seeds that they water, nurture, and tend to. The garden has evolved into a space where students discover nature, learn to work together, and play in the dirt. Over the past 20 years the garden has been taking care of over 2,500 students and community members.

Also on campus, we have an outdoor learning classroom, a collection of 12 benches providing seating for up to 36 children sitting beneath a large oak tree in a quiet corner of our campus. This space is utilized by our ELA classes during project-based learning and independent and reading and writing time and by our music classes – band, choir, and vocal music – to rehearse and perform outdoors. We have even found opportunity in necessity. Because the front of our campus is located near a major road, we have a storm drainage pond between that road and our faculty parking lot. When the pond was developed, and at regular intervals since, our students have led efforts to advocate for the inclusion of native species, regular clean-up and maintenance of the space, and adjustment to include species to fit emergent needs, such as milkweed to provided habitat and sustenance to monarch caterpillars.

Last year, out of necessity, we have taken the opportunity to educate our community on the cyclical nature of growth, death, and renewal. In the past few years, 5 mature trees on our campus have had to be taken down due to death and disease. While this is unfortunate and inconvenient, they presented a safety concern. In response, we partnered with community advocates, BCPS grounds, and local government to plant 21 new trees on our campus. Each homeroom at our school had the chance to learn about, plant, monitor, and protect their “class tree” at Lutherville.

Across our campus, The Baltimore County Public Schools (BCPS) Department of Facilities Management and Strategic Planning, Office of Support Services manages all Environmental Health Issues, including but not limited to, Indoor Environmental Quality (IEQ), radon testing, and the BCPS Integrated Pest

Management Program. BCPS utilizes the EPA's IAQ Tools for Schools program to include two independent, third-party walk-through inspection reports each year, which include regular HVAC maintenance and inspections, routine mold inspections, and routine inspections of effective cleaning and operations protocols.

BCPS recognizes the important role of indoor environmental quality (IEQ) and strives to maintain standards that protect the health and wellbeing of faculty, staff, students, and visitors. BCPS has developed and routinely updates the Indoor Environmental Quality Program (IEQP) in response to changing concerns about the quality of the environment within our schools and support facilities. The IEQP is divided into four parts. The first section addresses the guidelines being used in the design and construction of new schools, and in heating, ventilation, and air conditioning (HVAC) renovations to ensure that schools have acceptable environmental quality. These actions include the proper maintenance of mechanical and electrical systems which are vital to providing adequate environmental quality, proper housekeeping and cleaning methods, the integrated pest management program, the asbestos management program, and the proper storage and disposal of hazardous materials. The second section addresses how these activities are being monitored and the effectiveness of these activities in providing adequate environmental quality. The monitoring is accomplished through the implementation of a program, modelled after the Environmental Protection Agency's Tools for Schools program, in each facility, which includes audits by the third-party industrial hygiene contractors, and through proactive measures taken by the Environmental Action Team and BCPS Environmental Services. The third section addresses how occupants with environmental quality concerns should report their concerns. And lastly, the fourth section addresses how the Department of Facilities Management & Strategic Planning will address these concerns. The goal of these efforts is to provide the best possible environments within BCPS facilities. It is also recognized that procedures can always be improved; therefore, BCPS Environmental Services of the Department of Facilities Management and Strategic Planning will continue to evaluate and further develop this plan as the needs of our system evolve.

Furthermore, the BCPS Department of Facilities Management and Strategic Planning, Office of Facilities Operations, utilizes green cleaning products throughout all facilities, under the BCPS *Environmentally Preferred Cleaning Procedure*. BCPS is committed to providing school environments which are safe and conducive to learning using resources efficiently and effectively in an effort to maintain the highest standards of indoor environmental quality. The Department of Facilities Management and Strategic Planning, Office of Facilities Operations has established a comprehensive Building Service Worker training program along with a procurement plan for environmentally preferred cleaning products and equipment. These products and equipment have been determined by independent third-party organizations such as Green Seal, the Environmental Protection Agency and the Carpet and Rug Institute as being designed and manufactured in a manner which is environmentally preferred. The green cleaning procedures establish a healthy, high performance cleaning method which maximizes the effectiveness of building operations staff while also teaching the responsibilities and rewards of being stewards of a healthy indoor environment. The green cleaning procedures will facilitate the use of environmentally preferred products to maintain safe, clean, and attractive educational environments which positively impact occupant comfort and health.

Element 2: High standards of coordinated school, district, or postsecondary institutional health, including social and psychological services, nutrition, fitness, and quantity of quality outdoor time for both students and staff.

One of our staff mottos at Lutherville is, "teaching with our whole hearts for the whole child." This approach has deep roots at Lutherville, and its necessity is freshly in our mind navigating the COVID pandemic and serving students in our Regional Social-Emotional Learning Program. Becoming responsive to events and needs that are beyond our control – for society collectively or for students individually, has forced us to look at what we can control and influence – our systems, structures, and supports. There are two systems we consider in our approach to health and wellness: psychological and emotional health (1) and physical health (2). For each system we have developed a tiered approach to ensure each student gets the level of support they need.

Social and Psychological Services

Our systemic approach to emotional and psychological health is predicated upon helping students feel safe and connected, and then building their problem-solving skills.

Tier I for all students: In feeling safe and connected, we serve all students through a baseline training for staff in applying the principles of Conscious Discipline. Hallmarks of this approach are for all students to learn to identify and label their feelings, providing a "safe space" within the classroom for students to access when upset, and a practice of intentional noticing and positive recognition.

All students also complete a connection survey each fall, to determine if any students do not yet feel connected to four or more trusted adults on our staff. As a staff, we analyze results and target building connection with any remaining students, re-surveying under-connected students until all children in our building have achieved that baseline level of connection. All students also receive regular school counseling lessons in their classroom. These monthly lessons are delivered by our school counselor to develop increased familiarity and rapport while covering important topics. These lessons follow the BCPS scope and sequence to strategically cover all necessary topics well, and our counselor provides supplemental classroom lessons if a broad need arises during the year.

Finally, at Lutherville Lab, we strongly believe in our school's role in providing extra-curricular opportunities for students to increase a sense of belonging and give students a chance to use their strengths. We offer 10 student clubs at Lutherville and find that students spending time – designing in Art Club, rehearsing in Drama Club, producing announcements in Communications Club, providing service in Kindness Club, digging with Garden Club, exercising and working as a team in Dance Club, inspecting recycling with Environmental Club, honing math skills with 24 Club, discussing with Battle of the Books, helping others with Club Friends, or rocking with the Steel Drum Band – can be the difference in students making a key friend, feeling seen, and feeling supported at school.

Tier II for some students: We have developed an array of supports to help students needing more than our baseline practices for social connection and psychological support. We have developed a partnership with a mental health provider, Balance Point Health and Wellness, in which a therapist

provides in-school counseling to our students two-day-per-week. Having this connection within our building and available to provide therapy to children with the barrier of transportation eliminated for families has been vital to connecting students with this psychological support.

We have also developed a partnership with a local college – Towson University – to build a mentoring partnership for our students. Under the supervision of our school counselor and a student leader from Towson, the mentors visit Lutherville at least once-per-month and focus on building our Lutherville Leopards' self-esteem, forge a trusting relationship, and developing problem-solving skills. Our school social worker has developed and delivers weekly group social work lessons for classes in our RSEL program (31 students) to help develop their skills in managing emotions and navigating social situations. These lessons teach students mindfulness, perspective-taking, emotional regulation, conflict resolution skills, and flexible thinking. Similarly, our school counselor holds group sessions proactively and responsively. She meets with new students to help them develop a sense of belonging and find a home at Lutherville. She also meets with students responsively based on demonstrated needs. Students identified through the Student Support Team process may participate in groups targeted at social skills, grieving loss, developing executive function skills, or emotional regulation. Our school counselor has approximately 40 students at a time receiving small group support in 6-8 week sessions.

We also have a student-faculty mentoring program – the Pal Program – that connects a staff member to a student showing increased need for social connection and a trusted adult. The adult initiates a connection at least every-other-week, but many connect with their pal multiple times a week to check-in check-out each day, visit in their classroom, or play at recess.

Tier III for a few students: As a school with an RSEL program, we currently support 31 students whose intense needs exceed what can be met by a comprehensive elementary school. The effort to meet these students needs is individualized through the Individual Educational Plan process managed by their Special Education Case Manager and support team. These students are often supported through individual social work services sessions (currently 13 students receive individual therapy from our social worker), each has a Behavioral Intervention Plan with personalized supports and strategies, and we have support staff who have received Professional Crisis Management intervention training to keep students safe when they are in crisis.

Physical Health – Nutrition and Fitness

Tier I for all students: All Lutherville Leopards receive 30 minutes of daily recess as a starting point for outdoor time to play. This is the maximum time allowable by our district. Additionally, with creative scheduling, all Leopards get at least 60 minutes of physical education class beyond the 250 minutes required by state regulation each month. All Leopards also participate annually in the Kids Heart Challenge from the American Heart Association. This is the 17th year that Lutherville students have annually participated in the program, which includes curriculum that teach heart-healthy information and resources for eating healthy, then teaches jump roping skills, and students compete to jump and raise funds for the American Heart Association, thus making a connection to social responsibility.

An under-utilized source of physical wellness is music and rhythm. Dr. Bruce Perry's research points to the role of rhythm in regulating one's body and emotions when dysregulated. At Lutherville we deeply invest in music and the performing arts to help students find and restore their body's rhythm. All students – including students in our RSEL program – participate in chorus in grades 3 and 5. Every 5th grader at Lutherville learns an instrument and performs in the band or orchestra.

Nutritionally, our standards are driven by the Healthy, Hunger-Free Kids Act of 2010. In following these standards include:

- Ensuring students are offered both fruits and vegetables every day of the week.
- Substantially increasing offerings of whole grain-rich foods.
- Offering only fat-free or low-fat milk varieties.
- Limiting calories based on the age of the children being served to ensure proper portion size.
- Increasing the focus on reducing the amounts of saturated fat, trans fats, and sodium
- Less than 10% of calories should be from saturated fat over a school week. Nutrition label or manufacturer specifications must indicate zero grams of trans fat per serving.

In our cafeteria there is a "share table" where students place excess food items from the cafeteria that they are not going to eat, which can then be picked up by students who desire them. This practice both limits waste and provides additional nutritious options for hungry students. Beginning in 2016 and continuing until the COVID pandemic, each grade level took a turn caring for growing greens on the Garden Tower, culminating in "salad days" where they ate the nutritious greens they grew.

Tier II for some students: At Lutherville we also promote and structure additional opportunities for physical health. We partner with our local recreation council to offer "Early Bird Gym" which is an extra 45 minutes of activity time in the gym for 3rd – 5th grade students three times per week. We also offer "Lutherville Lappers," a running club for students to develop their endurance and cardiovascular strength by running on our campus after school one day per week. The Lappers season culminates in the Monster Mile, also in it's 17th year, a 1-mile fun run and celebration of our students hard work on their cardio-vascular health. This year, 61 students in grades 3-5 participated in the Monster Mile after school race, while all students trained during physical education class time.

Tier III for few students: For students experiencing food insecurity, we have partnered with the Baltimore Hunger Project to provide these students with food bags every Friday afternoon. Discretely placed in Lutherville Laboratory drawstring bags in the participating students' lockers on Friday afternoons, these bags provide needed nourishment to children and their families with only our school counselor knowing which students receive this additional support.

As a result of these efforts and supports for health and wellness, our latest Stakeholder Survey Data finds that

- 97.7% of parents perceived their child to be treated with respect at Lutherville Lab and 95.6% of parents would give Lutherville Lab an "A" or "B" for its performance/effectiveness.
- Student perception of safety at school increased over six percentage points from our previous year of in-person instruction (2019-2020).
- Staff results show that 100% of staff feel safe and secure at work, and 94.7% feel that students at Lutherville respect each other.

Narrative for Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills, and green career pathways.

Element 1) Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems

Returning to our mission of helping students live in harmony and with respect for the world around them, Lutherville Lab has curated a collection of learning experiences across a student's six year experience at our school that provide learning and projects at multiple points of intersection in the relationships between environmental, energy and human systems. These projects intentionally extend or are fully additive to our basic science curriculum.

In kindergarten, teachers meet students in a familiar place – green beans! Students learn about the parts of a bean seed, then dissect a seed to identify the parts and draw pictures of their observations, labeling each part. This lesson is connected to a field trip to the Baltimore County Agricultural Center to understand the that tiny bean seed's connection to farming and feeding families. In first grade, students look upward, observing the sky during the day and at night, comparing and contrasting characteristics of the sun and moon and their movement through the sky. Teachers connect variance in night sky observations to light pollution and human systems and close-up photographs of celestial objects taken by satellites.

In second grade, students learn about the quick and slow changes made to the Earth's surface, causes of erosion, and mitigation efforts. This learning is connected and grounded in local places, such as Smith Island and Holland Island in the Chesapeake Bay, where human system impact is causing the islands to measurably sink into the bay. Third graders participate in a stream study and raise rainbow trout in our lobby aquarium. During the stream study, students identify macro invertebrates to determine stream quality and analyze water for nitrogen, Ph-levels and pneumonia levels. Students also work to determine ways humans have adapted to different weather environments including blizzards, strong rains, and heavy winds. This study culminates in visiting a Gunpowder State Park in the spring, where students hike, conduct kick-seining to pull up organisms from the river bed for study under microscopes, write poetry about the environment, and release the young rainbow trout they've raised from eggs into the Gunpowder River.

Fourth grade students learn about renewable and non-renewable sources of energy and the pros and cons of each. During the project, they used a solar balloon outside to teach about solar energy and ways it is better for the environment. Fourth grade students also conduct a project where they design and prototype a device using everyday activity to generate and store energy (such as a scooter that charges a battery). Students recycle household materials to create their prototype. In fifth grade, students learn about biodiversity in our schoolyard and a nature center. They study the plant and animal life on the grounds, making observations about the characteristics of each and their interconnections. Students then develop a plan to improve our schoolyard environment.

Lutherville Leopards raised and released Monarch Butterflies each fall from 2015 until their status and endangerment in Maryland necessitated a permit to handle them in 2022. Each classroom had its own butterfly habitat, resourced with milkweed raised on our campus, where monarch caterpillars transformed and eventually emerged as butterflies. Students released these butterflies and tracked their migration patterns, learning about the loss of habitat and human system interaction that made our efforts to support their population so important.

Element 2) Development of civic engagement knowledge and skills and students' application of such knowledge and skills to address sustainability and environmental issues in their community

Actor and advocate Jeff Bridges noted, "the way to change the world is through individual responsibility and taking local action in your own community." This is the approach to changing the world that we aim to instill in our Lutherville Leopard school family. As a school, our Green School team identifies initiatives into which we pour our energy as a school to make change. The students in our Environmental Club took input from our student body and identified the initiatives. This year, we are focusing on improving our recycling quality and quantity and bringing back "Salad Days" at our school.

To support improved recycling, our "Green Duck Patrol" (students from our environmental club) inspect classroom and office recycling, awarding small green rubber ducks to be hung proudly for high quality recycling practices, or giving written feedback with dry-erase marker on a classroom laminated feedback card to help improve practices. Our students also take classroom recycling from the room to large central receptacles and then a student recycling teamwork with our custodian to ensure the recycling makes it safely to the proper dumpster. Salad Days were a pre-COVID practice that we have resurrected in which each class takes a turn using our hydroponic grow tower to grow lettuce, which students then eat for lunch when it's harvested. During the process, students learn about the growth cycle and how hydroponic growing works and can contribute to sustainable agricultural practices. Students are practicing, applying, and leading with their sustainability knowledge at Lutherville.

Field trips and hands-on experiences for students and staff beyond our campus are another avenue for students to understand organizations and outlets in their community where they can engage, grow their knowledge, and have impact. We have standing, annual engagements for our kindergarten, third grade, and fifth grade students taking field trips to the Agricultural Center, Gunpowder State Park (for trout release), and Oregon Ridge Nature Center, respectively. These trips provide opportunities for students to further their learning and with each trip students learn how they can address sustainability and environmental issues in our communities. Currently, our students are working to contribute to a grant application with a local delegate to fund more field trips for our students, particularly to get out to the Chesapeake Bay for more hands-on learning and experiences to understand the interconnection between our choices in Lutherville and the Baltimore metro region and one of America's great treasures – the Chesapeake Bay.

Element 3) Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy.

The learning and experiences discussed in this Pillar all contribute to STEM content knowledge and thinking skills, but we pride ourselves in additional opportunities for students to develop knowledge and thinking skills through creative schoolyard project-based learning. These projects complement the hard STEM skills students learn in their classrooms, with some of the "soft skills" of collaboration, problem-solving and creativity that are necessary for careers in STEM.

These school yard sustainability projects are something that has long been a tradition at Lutherville. Over the years, students have constructed blue bird boxes and bee houses for our learning garden, developed and maintained our monarch meadow, conducted various planting projects within the garden, and created murals depicting Chesapeake Bay regions. This year, we are practicing vermicomposting in kindergarten, raising ladybug larvae, planting flower and pollinator gardens, growing bay grasses, and developing a nurse's herb garden. Our nurse will teach students how some natural plants can support good health.

Each year, Lutherville hosts a career day and each classroom has a speaker come and share their career and pathway with a class. We are fortunate that each year includes multiple speakers in STEM fields. Last year, we had a meteorologist and local television weather person and an engineer who develops some of the most advanced technologies used by NASA. In previous years, we've welcomed nurses, doctors, lab scientists, naturalists, and other STEM careers as well.

Our STEM practices extend beyond the school day as well. Last spring, for our Spring Family Night, we leveraged these relationships and holding a STEM fair. For this event, families with parents working in the STEM fields shared their work and career with our students, each with a demonstration or interactive element to help the career come alive for our students. We also offer a popular Coding Club for students to use Ozobots and develop the foundations of coding.