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 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.

U.S. Department of Education Green Ribbon Schools

☒ 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: Middlebrook School
(As it should appear on an award)

Official School Name Mailing Address: 131 School Road, Wilton, CT 06897
(If address is P.O. Box, also include street address.)

County: Fairfield State CT School Code Number *: 161

Telephone: 203-762-8388 Fax: 203-762-1716

Web site/URL: https://www.wiltonps.org/middlebrook E-mail: feltzl@wiltonps.org

**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.

Lauren M. Feltz

Date: 02/06/20

(Principal's Signature)

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

District Name: Wilton Public Schools

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

Date: 02/06/20

(Superintendent's Signature)

Nominating Authority's Certifications

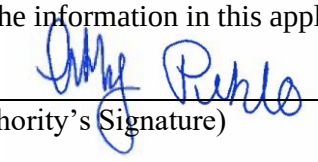
The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

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: EdAdvance

Name of Nominating Authority: Ms. Abby Peklo
(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.



Date: 02/06/20

(Nominating Authority's Signature)

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: March 31, 2021

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: An Overview of Your Work Encompassing All Three Pillars

As a community, Wilton, CT has a rich history of environmental conservation and sustainability. Led by Wilton's environmental non-profits, the town has a focused effort on preservation of the Norwalk River Valley Trail and surrounding waterways, a robust Energy Commission leading the way in solar power and successful campaigns such as "No Idling." Four years ago, it became very clear that Wilton schools were not keeping pace with our town's established goals for environmental conservation. Recycling was not being done in school cafeterias, composting was unheard of, and awareness about single use plastics was not even on the schools' radar screen. In response to this profound lag, Middlebrook School decided to take the lead to grow green.

Over the past five years, Middlebrook School has taken their role as pioneers in the sustainability movement very seriously. Middlebrook School's robust initiatives and programs have become examples of success for neighboring schools and communities and are pleased to have created a wave of sustainability initiatives throughout Fairfield County schools. At Middlebrook School, growing green was started by just a few teachers who wanted to challenge their students to reflect on environmental habits in the cafeteria. This first idea grew into a full-fledged movement that helped train the entire school district onto a path of sustainability.

By joining CT Green LEAF Schools, our Green LEAF Team embarked on a robust CT Green Leaf school self-assessment. We discovered both strong underlying tenets of sustainability as well as many gaps. Through a sustained and intentional school-wide effort, we worked hard over the past four years to close many of our school's environmental and sustainability gaps. We believe that school improvements, detailed in this application, demonstrate school-wide positive behavior shifts and cultural changes. The foundation and execution of our accomplishments are made possible through a diverse, inclusive Green Team and strong community partnerships.

The foundational element of reaching our environmental and sustainability goal was the development and implementation of a highly successfully sixth grade Family & Consumer Science class that focuses on school gardening and in-class sustainable cooking. Middlebrook School is proud of the creation of its 3,000 square foot garden and 600 square foot greenhouse, built with the support of our local Eagle Scouts.

Middlebrook students, teachers, and staff led a behavior and policy change for district-wide composting and recycling. The early success of the Family & Consumer Science class created the impetus for a schoolwide evaluation of cafeteria waste. This 6th grade class partnered with the school's 8th grade ISTEM class to develop a prototype for cafeteria waste stations. What started as an academic challenge turned into new waste stations being set up in every school's cafeteria throughout the district. We are proud to report that this has resulted in the diversion of nearly 2,000 pounds of food waste per week across the district.

Building on the momentum gained by this newfound sustainability movement in school cafeterias, the Middlebrook Green Team implemented a bi-annual Zero Waste Week, designed to bring attention to schoolwide, local, regional, and global environmental issues and maintain our school's focus on environmental stewardship. High interest, unique activities with kid-appeal include, for example, "pay as you throw," "pack your lunch raffle," and "parent zero waste trivia." In order to ensure success, we enlisted the help of another community partner – Chartwells School Dining Services, our school lunch provider. By bringing Chartwells into the fold of our Green Team initiatives, they chose to collaborate with us and align their sustainability program called Waste Not, with our Zero Waste Schools program.

Creating and developing outdoor spaces demonstrates another Middlebrook School successful green initiative. We know have a widely used outdoor classroom, pollinator gardens, and rain barrels. In spring 2018, Middlebrook School flipped the switch on their newly installed solar panels to start reducing our carbon footprint and save our community money on energy. As of September 2019, the district has captured one million kWh and saved $70,000.

Middlebrook's Green Team includes a highly visible presence by facilities management. We have worked closely with them to make continual facilities improvements that benefit the environment. Most recently, these improvements include newly installed low flush toilets in bathrooms and water filling stations in hallways. Our school building's environmental compliance aligns with EPA's Tools for Schools. Our Tools for Schools Committee verifies air quality compliance, green cleaning supplies, and appropriate use of chemicals and pesticides.

A significant reason why Middlebrook has been so successful is its many community partners. For example, the community non-profit Wilton Go Green provided tremendous financial and volunteer support for Middlebrook's Zero Waste Schools initiative. Trout Unlimited, an advocate for Wilton's Norwalk River Watershed, selected Middlebrook School in 2019 for its Stormwater Project to reduce stormwater runoff at the school's 110-acre campus in Wilton. Beginning in 2016, the local recognition that Middlebrook was receiving for their zero waste efforts caught the attention of the Center for EcoTechnology (CET), a Massachusetts based non-profit focusing on climate change initiatives. CET chose Middlebrook for a case study and documentary on our successful Zero Waste Schools program that is now streaming on their website.

Physical and mental health and wellness are areas of keen interest to Middlebrook teachers and staff. Environmental impacts and personal health are two components that are now integrated into our 7th grade health class curricular. Middlebrook supports students' physical health through its robust outdoor Project Adventure course featuring low and high ropes courses. Next to Project Adventure is a newly designed outdoor learning center which provides students an opportunity to engage in active multimodal learning beyond the traditional classroom. In 2018, as part of a school-wide initiative to support mental health, school administrators supported teachers' personal health and wellbeing by introducing meditation, alternative arts, and yoga. These restorative practices have had a positive impact on the overall wellbeing of our school community.

The Middlebrook Family & Consumer Science classes not only includes the 6th grade course on sustainability, but also gives the 7th and 8th grade students an opportunity to perform scratch cooking with healthy whole foods in the culinary kitchen. 7th grade tackles baking and pastry arts with a focus on whole grains and creative healthy substitutions and the 8th grade culinary arts students study multiple cooking alternatives, including vegetarian and vegan meals.

Many of Middlebrook's teachers have woven elements of sustainability into their classroom curriculum, whether it is an art projects made from recycled materials or the social studies research into natural resource decimation in the Amazon rainforest. Based on the school's new culture of integrating environmental and sustainability education, Middlebrook's 7th grade teachers are working to take this curriculum to a new level. Their goal this year is to develop project-based learning that will create real world applications for students.

Middlebrook School recognizes that our work will continue to evolve and grow as our world adjusts to an ever-changing environment fraught with challenges. For example, we recognize the changes that we

have had to make over the last few years to adjust to the ebb and flow of the process of recycling. In response to these changes, our Green Team now has a five-year plan and goal to tackle the issue of single use plastics in our cafeteria. Our next challenge is to have dishwashers installed so that we can switch to reusable trays and flatware. In support of this goal, we are involved in ongoing negotiations with school administration and Chartwells Dining Services to reduce the amount of single-use plastics brought into our schools.

We believe that Middlebrook School is a model of sustainability for the entire school district and the greater community. We recognize that there is so much more that we can do, both short and long term, and we are committed to continuing our work along the continuum of success.

Narrative for Pillar I:
Reduced Environmental Impact and Costs

Zero Waste Schools Program

Prior to 2014, there was very little evidence of sustainability at the school. Now, what started as a small student recycling club has developed into school-wide systemic change. With the leadership guidance of culinary arts & sustainability teacher Heather Priest and the Green Team (comprised of teachers, administrators, building custodians, Head of Facilities, students, and community members), Middlebrook has initiated a Zero Waste Schools program. Under the leadership of parent volunteer Tammy Thornton, Zero Waste Schools aligns with the CT Green LEAF Program, including: thoughtfully completing the CT Green LEAF school self-assessment and working towards making progress within this framework, designing and maintaining a school garden that serves the culinary classroom, building a greenhouse that is used year-round, reducing waste on every level, and bringing composting and recycling to the school cafeteria.

Mrs. Priest hosts a group of students during each lunch wave who serve as advisory committee for Zero Waste Schools. These students help brainstorm ways to engage the whole student body and design programs and solutions to meet the changing needs of the school. Our Zero Waste Schools Student Advisory Committee also works to alert the Green Team about other zero waste initiatives throughout our community and in neighboring communities.

Multi-Grade and Multi-Class Student Collaborations

Middlebrook's Culinary Arts classes have been composting fruit and vegetable scraps in the school courtyard since 2015. With this success in mind, the students in the 6th grade Sustainable Living class questioned why the school didn't compost and recycle properly in the cafeteria. Although the school cafeteria was equipped with 14 waste cans and two recycling bins, it was evident that these waste receptacles were neither positioned well nor were user-friendly, and therefore rarely used. The 6th graders conducted a waste audit in their cafeteria to determine how much food and recycling products were ending up in the regular waste cans. The data was not favorable towards our recycling efforts. As a result, Mrs. Priest (Culinary Arts teacher) collaborated with Mr. Shopis, the school's 8th grade ISTEM teacher to evaluate the larger food waste problem. Both teachers then involved the 6th grade Sustainable Living class. These students took bags of garbage from the cafeteria and sorted them into three piles: food, recycling, and waste. Working together, students determined that on average, the school was throwing away nearly 500 pounds of food per week. The 8th grade ISTEM students took the data compiled by the 6th graders and developed possible solutions for Middlebrook to start properly

sorting and disposing of cafeteria waste. These students took on this challenge with much enthusiasm, designing colorful and practical designs in their ISTEM class each quarter. By the end of that first year, there were several winning designs.

Winning compost and recycling station designs from 8th grade ISTEM class.

Making Changes to Reduce and Recycle in the Cafeteria

As a result of the students' research and design work, the Green Team set out to implement an effective and practical plan to tackle cafeteria food waste. We researched local compost pick up services and found a vendor who would take all of our food waste, not just fruit and vegetable scraps. Mrs. Priest submitted a proposal to the Superintendent of Schools, Dr. Kevin Smith, requesting funds for a new compost program. Dr. Smith was impressed with Middlebrook's efforts, and agreed to pay for this compost pick up and use Middlebrook as the pilot school for the district. As a way to reduce costs and increase buy-in, the district's maintenance professionals designed the new waste stations for the school cafeteria, based on the prototypes from 8th grade ISTEM class. To reduce environmental impact, the maintenance crew repurposed old wooden cabinets from the science lab. The Middlebrook Green Team painted the top, color coded for proper disposal.

Handmade waste stations based on the prototypes from 8th grade ISTEM class.

In addition to food waste that could be collected for composting, students discovered that an abundance of whole, unopened, unused edible food was ended up in the trash. This included things such as whole uneaten apples and bananas, unopened yogurts, and granola bars still in their wrappers. The Green Team enlisted the help of Chartwells, our school lunch provider, who supported our multi-stage food waste reduction program. We received permission to bring in a small refrigerator to be used solely for food donations. Our new donation fridge now offered a viable way for students and staff to donate food rather than throw food in the trash. Also importantly, students and staff could take food freely from the donation fridge throughout the day. This supported our health and well-being initiative by decreasing numbers of student visits to the nurse's office with complaints of hunger.

Middlebrook Donations Fridge

In support of our cafeteria food waste reduction initiative, we have developed universal student involvement. Every student participates in the composting and recycling. Students do need adult guidance to prevent compost contamination. Additionally, we have had to retrain students to comply with recycling industry policy changes.

Middlebrook Becomes a Model School

Due to the success of our pilot project in 2016, our newly formed Zero Waste Schools Committee began a two-year roll out of this model program at the other three Wilton public schools. We discovered that one important strategy for success in our school was to implement changes at the elementary school level. By teaching and modeling proper cafeteria waste disposal, we help ensure that by the time students come to our middle school, this behavior becomes second nature.

Realizing that education needs to be ongoing to ensure that new behaviors become cultural changes, Middlebrook developed and implemented a bi-annual Zero Waste Week designed to include students, staff, and parents. It focuses on current issues and trends in recycling, reducing food waste, and increasing environmental sustainability. This year we designed a *Pay as you Throw* campaign designed to give students a real life experience of "owning" their waste. We gave each student five raffle tickets. They needed to use one raffle ticket for every item they threw away during lunch. If, after throwing all of their lunch trash away, they had at least three tickets left, they could "buy" a cookie. This *Pay as you Throw* campaign coincided with other promotions to reduce environmental impact, including *Trade your*

Straw for a Twizzler Day and a *Zero Waste Video Pledge* competition. Feedback from Zero Waste Week has been very positive, with many parents reporting that students are bringing practices learned at school back into their homes.

In 2016, as part of the Zero Waste Schools project, Middlebrook School partnered with the Center for EcoTechnology (CET). CET, a statewide CT Green LEAF Schools project partner, has been a critical partner for our school. They answered questions and provided resources for our cafeteria food waste reduction initiative. In 2018, CET produced a Wilton Public Schools Case Study video featuring Mrs. Priest, Middlebrook's principal (Lauren Feltz), custodians, and students. This video is posted on the CET website as a model program to inspire, support, and educate other schools interested in becoming a zero waste school, or developing their own cafeteria food waste reduction initiative.

Middlebrook worked hard to develop a positive working relationship with Chartwells, the school's contracted school lunch program vendor. We are pleased to have gained necessary support from Chartwells in meaningful ways. Brian Reynolds, Chartwell's district manager, worked with us to align Chartwells sustainability program called Waste Not with our Zero Waste Schools Program. Chartwells paid to print posters and other marketing materials, sponsored raffles and promotions during Zero Waste Week, purchased our Donation Fridge, and trained staff to compost in the cafeteria's back of house.

By 2018, our Zero Waste pilot became an exemplary model for other schools across the state. Along with surrounding districts, we formed the Zero Waste Schools Coalition. We began supporting other schools in their efforts to move to reduce waste. Zero Waste Schools Coalition now has more than 100 members from 23 different Connecticut towns and 2 New York towns. The Coalition meets bi- annually in an effort to introduce new strategies, share ideas and discuss challenges. In October 2019, Zero Waste Schools Coalition co-sponsored the CT Green LEAF School Recycling Workshop, held at Central Connecticut State University, and attended by more than 100 individuals from across school and municipal sectors.

Pollinator Garden

Middlebrook students installed a pollinator garden in the summer of 2019 to support and increase native pollinator plants and insect species.

Pollinator Garden

Water Filling Stations

Three years ago, our student-led *Power of One* initiative developed a proposal to install water bottle filling stations throughout the building. A small group of students in grade 7 were passionate about

reducing the purchase and use of single use water bottles. The administration accepted their proposal, and, over time, installed three water bottle filling stations throughout the school, in hallways and cafeteria.

Solar Panels

In the spring of 2018, Middlebrook School flipped the switch on their newly installed solar panels to reduce its carbon footprint and contribute to cost savings for the district. Combined with a second school's solar panels, the school district captured 1 million kilowatt-hours and saved $70,000. Wilton is now in process of a plan to participate in an energy sharing program with Weston, a neighboring community. Should this plan come to fruition, Middlebrook's solar panels will become part of the solution for our town to meet 70% of all electrical needs in town-owned buildings with renewable sources, within two to three years.

Newly installed solar panels on Middlebrook School

Transportation

Wilton Public Schools recently embarked on a campaign to reduce nitrogen oxide emissions from the older diesel engines in its school buses. The district negotiated a contract with a new bus company and received an entirely new, more energy efficient fleet of buses. This brought greater efficiency, safety, and cost savings to the town. Engine heaters in new buses and programmable software helped the district conserve on both fuel costs and driver time, as there was no need to run engines for extended time to warm the operating temperature. Each bus has a larger seating capacity, which means fewer buses on the roads. The new software allows GPS data to sync with routing software. One positive result of this new software system is the ability to track use of out of the way rural bus stops. The district's transportation coordinator communicates with parents whose children are not using these out of the way stops to determine closer, alternative bus stops, thereby using less fuel and driving time.

As a school community, we encourage parents to have students ride the bus to and from school each day, rather than being driven by parents in individual cars. Walking or bike riding to school is not a viable option for most students, due to a lack of sidewalks and safe crossing areas. We communicate with parents the importance of reducing emissions and decreasing auto congestion on school grounds, which impacts outdoor air quality. Additionally, school administrators support our Green LEAF School commitment to reduce emissions and decrease fuel use by regularly assessing and reconfiguring school bus routes for shorter drives and energy efficiency. The Middlebrook Green Team has a long-term goal

of including electric school buses in its fleet.

No Idling Policy

Middlebrook School works in collaboration with our town government to ensure that each school bus complies with Wilton's municipal No Idling Policy during drop off and pick up at school. Middlebrook School collaborated with the community-based non-profit Wilton Go Green to implement a *No Idling* campaign. Parents and guardians had developed the bad habit of idling their cars in the student pick-up lines for extended periods of time. Through a strategic campaign and funding for signage, stickers, and other marketing material, Middlebrook students and staff educated parents in the pick-up lines about the environment hazards associated with idling. As a result, we now have a well-publicized policy stating that all cars waiting in pick-up lines are required to rest their engines while waiting to pick up or drop off students.

Reducing Storm Water Runoff

This year, Middlebrook School will introduce a storm water project, in partnership with Trout Unlimited, another community-based non-profit organization. The intention of this project is to reduce stormwater runoff at the school's 110-acre campus. This will reduce the pollutant loads to local Comstock Brook and improve water quality in the local Norwalk River. The goal of the Middlebrook

Project is to serve as a model to begin large scale storm water retrofit projects to reverse the impacts of stormwater on water quality within our local Norwalk River watershed.

Water Conservation

Middlebrook's three water bottle filling stations encourage students to fill sustainable water bottles with only the water they need. We also use this as an opportunity to teach about global water scarcity. The continued use of these water bottle filling stations have helped students learn not to waste water on a personal level.

Middlebrook School has an outdoor courtyard that students use in nice weather to eat lunch outside or just relax during recess. This courtyard area was flooding after every heavy rain or melting snow event due to poor drainage. When flooded, water had the potential to go into the building. This past summer, due to our environmental advocacy, the drainage system was redone. As a result of this effort, the drainage problem and risk of flooding have virtually been eliminated. Students can now enjoy this outdoor space anytime.

Our outdoor garden is now equipped with rain barrels and a new drip irrigation system, installed by our town's Eagle Scouts. We use this newly functional water resource to water our garden beds, eliminating the use of additional water.

Rain barrels attached to greenhouse roof and drip irrigation system throughout all raised beds

Paper Conservation

In 2018, Middlebrook School gave each student their own dedicated Chrome book to use at school and home. As part of this initiative, we educated students and staff about the environmental impacts of excessive paper use. Within a year, our school was in compliance with the district's paper reduction campaign. We know mointor the use of paper at our school by requiring teachers to print to a central copier (instead of to local copiers) in order to track paper use.

Facility Updates

In a unified effort to reduce environmental impact and costs, Middlebrook School has been undergoing several other updates and modifications since 2012. Bathrooms have been renovated and are now outfitted with low flow toilets and automatic shut off water. In 2019, the school began using 100% LED lighting. This summer, new ceiling tiles and updated LED lighting will be installed in all school hallways. Also this summer, the first stage of hallway carpet removal and replacement with tile will begin, in an intentional effort to increase indoor air quality.

Narrative for Pillar 2:
Improving Health and Wellness of Students and Staff

CT Laws Governing School Environmental Compliance –
Improved Indoor Air Quality, Reduced Pesticide Use, Green Cleaning, Energy Efficiency

Middlebrook is in compliance with all CT Laws Governing School Environmental Compliance. We follow the U.S. EPA Tools for Schools IAQ program. We have a Tools for Schools Committee that handles any concerns raised by members of our community concerning indoor air quality. IAQ and water sample tests, along with our school asbestos management plans, are available on the Wilton Public School website. Lawn-care pesticide use is banned on all grounds and athletic fields. Pesticide use on campus is restricted to only as-needed pest remediation, such as for yellow jackets and wasps, and only occurs at times when school is not in session or during planned events. Since 2011, Middlebrook

School has participated in the Green Cleaning Program. We use only Certified Green Seal or Eco Logo products for all cleaning supplies throughout our school. Also, all thermostats are programed to align with Energy Star regulations.

Physical Fitness

Middlebrook School considers physical fitness a priority. Through high interest apparatus and well-trained PE teachers, the school offers options that students of all physical ability and fitness levels can succeed at and improve their health status. Project Adventure is an integral part of our physical education classes. Begun in 1994, Middlebrook was one of the first schools in Connecticut to implement Project Adventure. In the 20 years since its inception, students have benefitted from high and low ropes courses, climbing apparatuses, and high platforms among the trees. By participating in Project Adventure, students become more physically fit, challenge themselves, overcome fears, work together, and become more self-confident using their bodies for positive health outcomes. Outside, there is also a rock wall climbing tower, Panther Jump, Burma Bridge, Criss Cross, and a Multi-Vine. Indoors, their is a rope ladder, hanging rope, and fitness elements called Centipede, Giant Slab, Flying Squirrel, and Panther Jump.

Family & Consumer Science

The Middlebrook Family & Consumer Science class is mandatory, which aligns with our school's cultural value of helping students make better choices around food and nutrition. Sixth grade students cook and prepare vegetables that they themselves grow and harvest in the school garden. This curriculum focuses on growing and consuming vegetables that are in season. The 7th grade baking and pastry arts curriculum focuses on teaching students how to make healthy substitutions in baking. This includes replacing saturated fats with heart healthy oils, using fruit and vegetable purees and providing gluten free options. The 8th grade culinary arts students study a variety of healthy grains, especially those grains that have recently entered the culinary lexicon. Students learn different ways to prepare healthy grains and incorporate these into their daily diets. Eighth graders also learn how to prepare a variety of healthy vegetarian and vegan dishes, such as chickpea curry and baked eggplant fries.

Students working to prepare beds for spring planting

Health and Nutrition

All students at Middlebrook School learn about many important health issues, including nutrition, in their mandatory Health class. The health curriculum includes the MyPlate concept, key nutrients, and the negative effects of having excessive salt and sugar in one's diet. There is also an important emphasis on how our food is made and where our food comes from. Students learn how to read food labels and why this exercise is important. And, they learn about energy drinks and sugary sodas: the ingredients and the negative health impacts of over-consumption.

In 7th grade, Health class curriculum includes environmental health and the direct impact of environmental hazards on personal health. In 8th grade, students explore various aspects of our society that have a direct impact on our health. Mrs. Zarnik, the Health teacher, is a member of our school's Green Team. A positive impact of our school's cultural shift towards supporting personal health and wellness and environmental health is an increased interest among students in sustainability and environmental topics such as pesticides and their impact on humans and the environment.

Mindfulness

Middlebrook School recently made an intentional effort to introduce and emphasize mindfulness and wellbeing among both teachers and students. Administrators introduced meditation, alternative arts, and yoga sessions as part of each professional development day. They recognized that mindfulness and wellbeing would personally benefit teachers, and this benefit would extend to students. This became part of a plan to increase a culture of peace at school. Several teachers at Middlebrook are certified instructors in yoga and other healthful practices, and these teachers have generously shared their talents with colleagues at school. Mindfulness sessions are now offered as part of every professional develop day at our school.

Narrative for Pillar 3:
Effective Environmental and Sustainability Education

Middlebrook School ensures that environmental and sustainability education is integrated across subjects and within all grade levels. Sixth Grade Family & Consumer Science curriculum is called Sustainable Living. This curriculum, which aligns with state FCS standards, includes sustainable growing practices, composting, food storage and preparation. The school garden and greenhouse are regular and essential teaching tools. The school garden started out with four small beds and has grown to a 3,000 square foot area. The addition of a 600 square foot greenhouse enables students to plant and harvest produce all year long, as part of their classroom curriculum. The Sustainable Living curriculum teaches students how to cook and prepare dishes using locally sourced foods and produce that is either in season, can be grown in a green house, or can be easily stored off season. Students use dishwashers and work with all reusable kitchen supplies. There are no single-use items used in this class.

Students learn to make spinach pasta from fresh spinach planted and harvested in their school garden.

The I-STEM class, in collaboration with Family & Consumer Science and Health classes, developed a cross curricular project where students assessed food waste in the cafeteria and designed compost prototypes. I-STEM students act as mentors to help other students change wasteful habits, both in the cafeteria and elsewhere. Their designs are now used at Middlebrook School and throughout the district in different iterations, helping to collect compost and recycling from cafeterias in all of the schools.

Middlebrook School aligns its science curriculum with Next Generation Science Standards (NGSS). NGSS is intended to interface with literacy and social studies as well. This happens at Middlebrook in multiple ways. At all grade levels, teachers are collaborating to weave environmental and sustainability education into reading, writing, math, world language and social studies. A particularly effective new initiative is unfolding in the 7th grade curriculum. 7th grade teachers are working as a team to develop project- based learning within an environmental education construct. This project-based learning is designed to create real world applications for students. Performance tasks include challenging students to 1) identify a current environmental issue; 2) propose and support a remediation or solution; 3) act as entrepreneurs to create an NGO that addresses this issue at the local, national, or global level.

<u>Outdoor Classroom and Learning Area</u>

In 2016, Middlebrook's 7th grade science teacher Cindy Beckmore and Physical Education teacher Heather Schlitz collaborated to design an outdoor learning area where students could engage their senses and experience the natural world around them. This outdoor learning area now includes a stone rockway, flower planters, and an outdoor classroom with wooden benches arranged in a Socratic circle. Our local Eagle Scouts helped build this outdoor learning area where students can experience a change of routine and explore creatively in a safe and fun natural environment.

Middlebrook outdoor learning center

Repurposing

Students in Middlebrook's art classes are encouraged to repurpose and upcycle materials for their artwork. For example, a bee sculpture (*see photo*) was designed using materials that couldn't be recycled and would have ended up in the trash. Students created this project to bring attention to the damage that using single use plastics has on the environment. They made an intentional connection to our decreasing pollinating bee population, believed to be exacerbated by harmful human activity.

"Bee" Art made from materials that cannot be recycled

Middlebrook School has taken a leadership role to repurpose furniture. Rather than purchasing new, the school now sources from recently closed office buildings and schools. Also, every summer, Middlebrook's principal (Lauren Feltz) posts images of discarded furniture from across the district and surrounding area that are available for teachers to repurpose in their classrooms. This has greatly reduced the amount of new purchases throughout the school.