

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:

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

Official School Name:

(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.

Date:

(Principal's Signature)

Name of Superintendent:

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



District Name:

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

Date:

(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:

Name of Nominating Authority:

(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:

(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: 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.



Jill K. Underly, PhD, State Superintendent

Cambridge Elementary U.S. Department of Education Green Ribbon Schools Summary of Achievements

Students at Cambridge Elementary are greeted daily with green space to live, learn, and grow. Strong partnerships with local organizations have linked families, community members, and the school in efforts to provide maximum learning opportunities for all stakeholders within our shared community. Highly educated staff supports true experiential learning and values the importance of developing green and healthy habits from a young age. The entire school community embraces the importance of how curriculum should and can interlink and support the underlying efforts and responsibilities of raising students to achieve their dreams while being stewards and advocates of our shared Earth.

Pillar 1: Reducing Environmental Impacts & Costs

Cambridge Elementary reduces greenhouse gas emissions through both conservation efforts and renewable energy systems. New, roof-top solar panels allow the school to depend less on traditional energy sources. That, in tandem with energy-efficient lighting greatly improves energy utilization and costs. Weatherization protocols include practices such as enveloping our double-paned windows and doors. The pool is covered with a thermal "blanket" when not in use to reduce energy usage. Nearly all classrooms have sources of natural light, and with the new lighting system we can more easily adjust the brightness of our lights to maximize the use of natural light within our school. Annual "bike/walk to school" days for all students and staff raise awareness about reducing emissions and choosing greener methods of transportation when possible. A "no-idle" policy in development encourages all vehicles to and from school to limit the time of motors running, ultimately reducing greenhouse gas emissions.

The school's 40-acre site includes nine-acres of woods and three-acres of wetlands, which contain native, sustainable vegetation, and therefore do not require maintenance with motorized equipment, such as lawn mowers and power trimmers, ultimately further reducing our greenhouse gas emissions. Ecologically beneficial strategies are used to maintain the school grounds and reduce environmental impact and costs, including planting native trees and vegetation on the grounds, which reduces the cost to keep them alive and healthy year-round while improving the local ecosystem, and containing runoff to the school property.

The school's grounds and practices contribute to conserving water and improving quality.

Wetlands and an ephemeral pond filter water before it replenishes the groundwater. The whole district has reduced the amount of salt that is used on parking lots, recess blacktop areas, and sidewalks to manage snow and ice buildup in the winter, to minimize the amount of salt in "run off." Inside of the school, motion-activated handwashing stations outside of the student bathrooms allow adults to supervise the amount of water being used. A water bottle fill station not only helps reduce the amount of water used but also encourages the use of reusable water containers.

The woods, garden, prairie, and wetland ecosystems provide many educational benefits. Outdoor physical education classes are held outside, as weather permits, even throughout the winter months with activities like snowshoeing and sledding. Use of the school forest's nature trails are supported by trail guides with mini-lessons and benches for an "outdoor classroom." Students have lessons in the school forest, use recess time for walks in the woods, help preserve and restore the school forest, participate in Environmental and Ecology clubs, and support social-emotional wellness by walking through natural areas. School families and community members also use the nature trails and corresponding trail guides accessible at the trailhead for enrichment and learning opportunities outside of school.

During the lunch hours, all students and staff engage in composting appropriate food waste with the help of our Green Team, learning how and what can be composted and recycled. Additionally, milk cartons are sorted out of the waste stream and recycled to keep them out of landfills. Other examples of disposal of solid waste include paper recycling, cardboard recycling, and the recycling of metal from our school kitchen.

Pillar 2: Improving Health & Wellness

Now, perhaps more than ever, Cambridge Elementary embraces the importance of advancing the health and wellness of students and staff. Due to COVID, efforts have doubled, if not tripled regarding cleaning, safety protocols, and disinfecting learning spaces, going above and beyond to keep students and staff safe and healthy and keep school open. Extra efforts include utilizing specialty air filters in our heating and cooling systems, additional ventilation in the two designated health room areas and the encouragement of as much outdoor education and play as possible.

Outdoor learning and play have always been encouraged, even in non-pandemic times. Students get their hands dirty in the Blue Jay Garden and learn about the joy and hard work of gardening from planting seeds in the spring to harvesting the home-grown produce in the fall. Visits to the Blue Jay Garden and outdoor classroom are encouraged not only for lessons on ecology and the environment but also for social-emotional learning. An "open garden" at noon recess welcomes students from September through October and is a nice place for all to

get a healthy snack, work, or just "chill." Fresh produce from the Blue Jay Garden is featured in the lunch program.

Farm2School "Chef in the Classroom" program helps K-5 students experience the full cycle of life regarding the garden while also realizing the importance of care needed to harvest and celebrate the food. Chefs tailor presentations to curricular themes of all subjects such as: math (measuring ingredients), science (cooking), safety (using a knife, burner, etc.), reading (recipes and cooking instructions), social studies (learning about the differences and traditions of people in other cultures with regard to food), and social and emotional learning (sharing the food with others and how food makes us feel). For example, at the kindergarten level, a professional chef comes into the classroom and cooks "Stone Soup" from vegetables harvested by the kindergarteners after reading the story. This program truly celebrates care for ourselves, others, and the world around us.

A strong student services team coupled with active participation in the Cambridge Wellness Collaborative (CWC) provide many opportunities for social-emotional wellness. All staff are encouraged to and regularly utilize our campus for natural and soothing spaces for connection and emotional self-care, and the "Blue Jay 20" provides 20 minutes each day focused on social and emotional learning to complement additional efforts made by classroom teachers.

Pillar 3: Increasing Environmental Literacy

Cambridge Elementary ensures effective environmental and sustainability education throughout the curriculum by providing age-appropriate learning and service-learning tasks which are woven through subject areas and throughout our campus. These efforts have proudly earned Cambridge Elementary School the "Wisconsin Idea Award" and the "Invasive Crusader" award. Lessons that are provided to students outdoors in natural areas, such as woods, wetlands, and the school garden, have curriculum content that is tied to the subjects being covered in the classroom as well. K-1 students plant acorns and hickory nuts as they walk through the woods in the fall, and leave bird seed on stumps throughout the winter. These activities are reinforced in the classroom through writing activities and relevant literature. Third grade students write poems outdoors about nature, art classes draw natural elements and do leaf rubbings, and fourth grade science students study erosion and animal tracks. Our school woods is a space for our students and staff to collaborate on restoration projects and "get dirty" through hands-on learning and also a space to be at peace.

Place-based and project-based experiences and activities allow students to apply specific local knowledge to other places, situations, and environmental conditions. Special collaboration efforts exist between grade three through five that lead to problem-solving in real-life stewardship work. Students in kindergarten through second get hands-on with the

school garden where they explore and they perform tasks such as recycling and composting, making new soil, and looking at earthworms and other small creatures. This program promotes self-directed learning, and often leads to students teaching students about what is happening with our garden and our environment.

As an extension outside of the campus, fifth grade students engage in the "Koshkonong Creek Long-Term Monitoring Project" to study the watersheds and their connection to water quality, our civic responsibilities to protect water quality, and what "best practices" are to achieve that goal. Other civic extensions include kindergarten through fifth grade students visiting, learning, and working at the Severson Learning Center, connecting with 4H, and the Cambridge Middle and High School Farm Demo Day at CES. STEM concepts are integrated throughout these activities and the school ensures materials are available to support STEM education within these civic extensions.

Cambridge Elementary School exemplifies a culture of sustainability with emphasis on kindness, inclusion and "personal best," created and nurtured within each regular and special education classroom, in concert with the "specials": PE, Art, Music, and Environmental Education.

About the Summary and Scoring:

Green & Healthy Schools Wisconsin collects annual information from schools and partners and compiles this data long-term. The most recent data has been included in the application summary that follows along with additional supporting information provided by the applicant. Each application was ranked by teams of external reviewers and internal reviewers, each with different areas of expertise, using common ranking criteria. In addition, the slate of nominees was forwarded to related state and federal agencies to ensure there were no compliance or regulatory issues.

Pillar I: Reduced Environmental Impacts and Costs

- Reduced or eliminated greenhouse gas emissions, using an energy audit or emissions inventory and reduction plan, cost-effective energy efficiency improvements, conservation measures, and/or on-site renewable energy and/or purchase of green power
- > Improved water quality, efficiency, and conservation
- Reduced solid and hazardous waste production through increased recycling and composting, reduced consumption, and improved management, reduction, or elimination of hazardous waste
- Expanded use of alternative transportation, through active promotion of locally available, energy-efficient options and implementation of alternative transportation supportive projects and policies

Cambridge's recent environmental impact accomplishments include new solar panels installed on the roof, building envelope completed, switched to energy efficient lighting, continued efforts for recycling and composting in the cafeteria and classrooms through the student green team.

Policies: Cambridge Elementary School implements multiple green and healthy policies, including:

- environmentally-responsible products purchasing policy
- food procurement from local and "environmentally preferable" sources
- Providing healthy classroom snacks.

<u>Audits:</u> In the last 12 months, Cambridge has conducted energy, waste, and water audits.

Energy: Cambridge implements multiple energy conservation measures, including LED lighting, occupancy sensors, an upgraded energy efficient HVAC system, an updated building envelope, installation of variable frequency drives, computer power management settings, hot water temperature set points, energy costs are monitored by tracking monthly energy consumption and costs (with energy audits), removed personal appliances such as space heaters or mini-fridges, removed vending machines, and delamped lighting fixtures. Cambridge also uses photovoltaic (PV/solar), passive solar design, and active solar thermal on-site renewable energy production methods. The school also purchases renewable energy from the utility provider.

- The new energy-efficient lighting systems mentioned previously are LEDs, so as well as being super efficient, they do not require ballasts, so there are no more ballasts going to the landfill.
- "Variable frequency drives" are on all our air handlers, and the air handlers have energy efficient motors.
- The boiler for the pool is a high efficiency boiler.
- The "enveloping of the building (mentioned previously) referred to work that was done during the summer of 2021, when all our windows and doors were re-caulked and the new weather-seal strips were installed on every door.

View Cambridge Elementary's energy dashboard:

https://hmi.alsoenergy.com/powerhmi/publicdisplay/56e4230b-1cc5-44b5-8633d8f31cb5fbb5/main?arg=NTg5ODI%3d&lang=en-US

<u>Waste:</u> Cambridge elementary participates in cafeteria and classroom composting through both a three-bin or pile system and feeding to livestock.

- Students sort and recycle eligible lunchroom food and paper waste. They also recycle milk cartons in their classroom.
- Students use reusable water bottles. Water conservation is a classroom goal and theme
- A paper recycling bin is in every classroom. Students understand the importance of recycling and demonstrate that by utilizing these bins.

- A bin for assorted usable recyclable "scraps" is also in most classrooms. Students practice the "reduce, reuse, recycle" principle by constructing creative projects using those scraps.
- At recess, students voluntarily pick up trash that has blown into the school yard. Sometimes whole classrooms go out to intentionally pick up trash.
- The school kitchen uses washable reusable food trays and eating utensils. When that is not possible, they use compostable cups, bowls, and spoons.

<u>Water Conservation Measures</u>: Include automatic faucets and a water bottle filling station.

<u>Eco Friendly-Landscaping</u>: Cambridge reduces runoff impact from landscaping by either using no fertilizers or careful application of fertilizers.

- Our woods is actually a registered School Forest, thus by definition, we have gone through a rigorous process, and have both an education and sustainability plan for our woods and wetland.
- Our 9 acres woods and 3 acre wetland function as valuable "carbon sinks."
- Our foundation plantings are native fruit-bearing shrubs chosen to support migrating songbirds. The native trees in our school yared were planted to create shady play-spaces.

<u>SNOW:</u> Maintenance staff use no salt at all on our sidewalks and playground blacktop areas, because of the brushes used to move snow. The salt used on our parking lot is considered "environmentally safe, child and pet friendly" and we use only 50% of what we used before. This is part of our IPM plan.

IPM:

- The cleaning products used in our school are common household cleaners deemed to be "safe for children and pets." (Please note, staff is cleaning surfaces more frequently during the pandemic)
- The floor-cleaning product is "neutral," and leaves no residue.
- The floor wax is a water-based wax.
- The professional service that occasionally sprays around our foundation uses a product that is "child and pet friendly," is biodegradable, and leaves no residue.
- Hazardous and biohazardous materials are disposed of according to law.
- All custodial and maintenance staff are trained and/or certified to use the products required for their job.

Pillar II: Improved Health and Wellness of Students and Staff

High standards of Whole School Whole Community, Whole Child health, including health, nutrition, and outdoor physical education; health, counseling, and psychological services for

both students and staff; family community involvement; and

an integrated school environmental health program that considers occupant health and safety in all design, construction, renovation, operations, and maintenance of facilities and grounds, including cleaning and maintenance; mold and moisture; chemical and environmental contaminants; ventilation; and pests and pesticide.

Cambridge Elementary has a Whole Child Team which acts as a resource to assist students and families for academic reasons as well as providing assistance beyond our school. They promote outdoor education as much as possible and use our campus (gardens, woods, etc.).

Cambridge embraces coordinated school health:

- At the beginning of every school day every child is being intentionally welcomed to another fresh start day of school. At the end of the day, these good wishes are repeated to the homeward bound students.
- At Cambridge Elementary School we view "student health" in its broadest meaning, which includes social and emotional well-being with a focus on interpersonal life skills.
- PBIS provides a structure of daily, weekly, and monthly character-building themes and activities that are ongoing at the classroom level.
- All this attention to the "basics" of social emotional well-being support the academic learning schools have been traditionally responsible for.
- Even more basic is meeting students' basic needs. Our school social worker assists families experiencing challenges such as food and shelter insecurity. She connects families to resources which can provide assistance, and also welcomes the families to our supportive school community.
- One counselor mentors new students to ensure a smooth transition. She also provides small group counseling for grief counseling, interpersonal skills, bullying and playground behavior.
- Special education classrooms support students who do not see themselves as successful in their core academic areas, but who can shine when they are exposed to learning opportunities beyond the classroom. Students who struggle with behavior and/or mental health issues often discover purpose in volunteering; these successes can transfer in healthful ways to other arenas. Universal strategies such as Zones of Regulation are implemented throughout the school; but especially within our special education program.
- Coordinated with all classrooms are special services such as speech, OT and PT
- Another basic:act ual physical health and well-being. The school nurse covers health needs at all 3 of our schools. At the Elementary School the full-time School Health Aide supports all daily health needs: everything from administering medicines to supervising inhalers and dispensing bandaids; all with a dose of calming kindness. She also coordinates our school vision, hearing and dental clinics.
- Staff wellness is also supported. Annual training about epi-pens, CPR and seizures occur. The building's Blue Code team is further trained to provide emergency help. Staff

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members can use the community pool, join meditation and walking groups, and receive a monthly wellness newsletter.

- Our physical education program provides students with a safe positive environment that introduces and builds life-long skills for all our students. This includes adaptive physical education. We know the importance of teaching physical skills, but also understand that problem solving, teamwork and other interpersonal skills allow for the development of the whole child within the physical education setting.
- Our visual arts education program also provides a safe, calm space in which students are motivated to try new techniques with new materials to create words of art. Mindfulness and positive mantra recitation create an atmosphere conducive to engaged, creative endeavors. Our school hallways are a constantly changing art show celebrating the young artists and their creations. An afterschool Art Club provides additional opportunities for young artists.
- Our music education program provides yet another safe supportive environment where making music together becomes a joyful experience. Whether joining voices together or creating pleasing rhythms with percussive instruments, teamwork promotes interpersonal life skills through the pursuit of musical achievements. An after school Blue Jay choir provides students with additional opportunities for making music. Visits by our high school choral and instrumental groups inspire our young musicians to continue their musical experiences as they move through the school system.
- As a system, we have 3 teams which support a "collective healthy approach" for students, families and staff: Whole Child Team, Vertical Team and PBIS Teams. Each team supports school efforts toward the whole child and ultimately a safe and healthy school. The Whole Child Team involves administration, student services staff and teachers, all in an effort to provide the supports needed for students to be healthy, safe and successful. The Vertical Team consists of a member from each department/grade level and administration. The Vertical Team is a building leadership team that helps create goals, plans for success, and holds the responsibility of ensuring a safe, healthy, welcoming and successful school. Our PBIS teams target areas of improvement within our school environment, create goals for betterment and plan for celebration in achievement of goals. This system approach helped Cambridge Elementary achieve the Sugar Maple status.
- Programs such as the Community Activity Program provide coordinated youth athletic programs, a Youth Center, the community Food Pantry, and other programs which support the community assets vital to a safe and wholesome journey from childhood to adulthood.

This year, we were fortunate enough to welcome an additional counselor outside of our school community to enhance our amazing student services team (school counselor, school psychologist and district social worker) who also engage and embrace social and emotional

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learning.

Although our student services team is invaluable to us, our strongest companion for social, emotional and wellness in general is our strong commitment/partnership with the Cambridge Wellness Collaborative (CWC). The CWC is composed of representatives from community members across our community. Due to the green and healthy efforts at Cambridge Elementary School, for the last 3 years we have hosted the Wellness Summit for our community. The efforts from this group embrace aspects concerning health and spiritual, financial, religious, and social and emotional wellbeing, through a green and healthy mindset. They have helped sponsor and promote the bike/walk to school events, Summit events, dementia friendly community training, to name a few. Cambridge Elementary was specifically chosen to host these summits because of our core beliefs, our natural spaces on our campus, and our continuous efforts to care for and celebrate our shared environment.

Staff also participate in wellness activities during professional development days, meditation sessions on late start Wednesdays, Fort HealthCare walking and exercise challenges, and after-school walking groups. There is a monthly newsletter concerning wellness within our district and, at times, opportunities for staff to engage in wellness events at the Severson Learning Center.

Wellness committee: Cambridge Elementary has a wellness committee.

Food: Our school participates in a Department of Defense program which procures local produce for schools. Cambridge students participate in farm to school programming which is also tied to a "Chefs in the Classroom" program, where students and families learn how to cook healthy meals with fresh ingredients. Learn more about Cambridge Elementary's Farm2School programs: <u>https://www.cambridgef2s.com/programs</u>

<u>**Transportation:**</u> In the last 12 months, Cambridge has hosted a bike/walk coordinated with local community partners.

<u>**Outdoor opportunities:**</u> Outdoor education, physical activity, and nature-based recreation opportunities at Cambridge include bike and walk to school events, The Cambridge Wellness Collaborative, wellness and sensory breaks for students, wellness included in our professional development for staff, snowshoeing and swimming as part of our curriculum, and more. Cambridge utilizes a school forest, garden, and outdoor classroom as much as possible for outdoor education or recreation.

<u>Air Quality:</u> In the last 12 months Cambridge has implemented multiple environmental health practices such as improved indoor air quality to prevent exposure to asthma triggers, installed energy recovery ventilation systems to bring in fresh air for use in the HVAC system, utilized green cleaning products, and conducted monthly inspections of school structures for mold, moisture, and water leakage.

Drinking Water: Cambridge Elementary has tested the drinking water for lead or other contaminants in the last 12 months.

Learn more about the Cambridge Wellness Collaborative: https://www.facebook.com/cambridgewellness/

Wisconsin does not require radon testing and Cambridge Elementary has not done a radon test because the school does not have a basement where heavy radon gases would typically collect. Additionally, the school has greatly increased the air exchange rate. Especially due to COVID, the air exchange rate is 3 times the normal rate (35-40 cfm, cubic feet per minute, per person normal rate). The normal limit has been exceeded 3 times the rate which would remove any/all types of gases similar to and including radon.

Pillar III: Increased Environmental Literacy

- Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems;
- Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st-century technology-driven economy;
- Development of civic engagement knowledge and skills and students' application of such knowledge and skills to address sustainability issues in their community.

Environmental education is integrated throughout our school culture and is even a part of Positive Behavior Intervention System (PBIS) lessons:

"Our philosophy has always been to empower children to learn that "You are never too small to be a big help." Our students learn about the HUGE IMPORTANCE of tiny pollinators and other soil creatures; and they are given age-appropriate tasks to help the woods or the wetland or the garden. We infuse rich literature with our efforts to help foster empathy for all creatures; even the not so "cute and fuzzy ones." When children understand earthworm slime as protective gear for tunneling through soil (similar to a person's astronaut gear or hazmat suit) empathy and respect are born. That is why we believe that environmental ed. and PBIS have similar goals and make good partners in raising respectful stewards of the Earth."

<u>Green teams/clubs</u>: Cambridge Elementary has a green team and opportunities for students to participate in organization or clubs related to nature, the environment, or the outdoors. There are roughly 20 students who have participated in each of the Environmental Clubs (help care for and understand the garden and woods) and the Green Team has roughly 30 students who help with sorting waste and composting at lunch.

- Students are taking care of our woods and wetland are helping reduce the environmental impacts of invasive species and increase the ecological services these places provide.
- 5th grade students learn about the concept of "ecological footprints." Working in teams, they design businesses and/or nonprofits whose mission is to solve an environmental problem. One recent example featured a vending machine serving only healthy food in an impoverished part of a city. To earn a meal, a person inserts a few aluminum cans that were picked up in their environment, thus serving both to reduce trash and feed needy people.
- Students plant native plants, shrubs and trees in our woods, creating better wildlife habitat, thereby reversing habitat loss.
- By the time they reach 5th grade, students are accustomed to thinking collectively about possible solutions to problems in their schoolyard. An example of this is suggesting a rain garden in a wet spot.
- Students K-5 can choose to spend a recess helping in our woods and/or wetland.

<u>Student leadership offerings for advancing G&H practices:</u> Students help plant and care for the garden at Cambridge.

<u>Curriculum</u>: Cambridge has green and healthy concepts integrated into the curriculum at every grade level. When Cambridge chose curriculum, the staff considered resources that promote the ideas of Green & Healthy Schools. The Farm to School program is very successful/supportive to our schools. Chef in the Classroom program uses ingredients from our garden, promotes health.

Learn more about Cambridge Elementary's Farm2School Blue Jay Garden: <u>https://www.cambridgef2s.com/bluejay-garden</u>

Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems, use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st-century technology-driven economy, and development of civic engagement knowledge and skills and students' application of such knowledge and skills to address are addressed throughout all of our curricula and especially in our English and Language Arts curriculum. This was important to us when we selected our ELA curriculum and we use other resources as well.

<u>Outdoor Spaces/classrooms</u>: Cambridge students and staff utilize the school building and outdoor spaces as extensions of classroom learning. In the garden and woods, the classes work on identifying bugs, tracks, plants, trees, water levels, invasive species, and other factors that influence the health of their campus. Outdoor classrooms are also used for poetry, reading, and art as well as science, ELA, etc. Cambridge's outdoor learning spaces include a food garden, a habitat garden, an outdoor classroom, and a school forest.

Learn more about Cambridge Elementary's School Forest: https://www.cambridge.k12.wi.us/o/ces/page/ces-school-forest

<u>Enviro or wellness events</u>: In the last 12 months Cambridge Elementary has hosted multiple health or environmental events including the Great Apple Crunch, Arbor Day (4th graders received trees), Earth Day (with Gaylord Nelson's daughter, Tia, as a guest speaker), and bike and walk to school events.

STEM/STEAM Connections:

<u>Kindergarten</u>

- Kindergarten environmental ed. uses playful activities to help students feel at home in the woods. Planting acorns in fall, setting out birdseed in winter and transplanting wildflowers in spring correlate with units about seasons and plants.
- Literature related play-centers encourage language development and connect students to the actual woods and its pond. (examples: The Mitten, Have you Seen My Duckling)
- Students collect "pretty leaves" and sort them by shape, make leaf rubbings and create patterns of leaves and other found objects. Sorting, matching, and pattern making are all part of the math curriculum.
- IN the prairie students look for colors, shapes, tall and short, big and little, and feel textures and smell fragrances.

<u>First Grade</u>

- First graders are learning to read and write. Related literature precedes every environment education outing and illustrated dictations or students writing their own stories conclude each outing.
- Planting acorns and leaf activities happen during a fall season unit, while transplanting wildflowers in spring happens during the Plant Unit.
- Insects are a science unit. In early fall students explore the prairie looking for insects and telling their descriptive "bug words" to the adult busy recording them. In the following week, students make a big book called "In the Tall Tall Prairie." Printmaking with prairie leaves creates the habitat pages for colorful drawn insects and blooming flowers with "bug words" forming the text.

Second Grade

- During the fall Habitat Unit students refurbish the brush pile shelters in the woods.
- During the Animal Groups Unit students do a 3-minute observation in the prairie habitat tallying the kinds of insects visiting a particular blooming plant species. They use their tally sheets to present their observations. Discussions follow about why their tallies might

differ and the importance of accuracy and multiple observations to scientific methodology.

<u>Grade 3</u>

- Interdependent relationships in ecosystems is part of the science curriculum. Students create 4-season food chains featuring the plants and animals of our woods after making seasonal observations about food availability.
- Inheritance and variations of Traits- Students investigate the leaf adaptations of texture and shape among plants in our prairie, adaptations to sun and wind.
- "Soil Detectives"- Students examine 3 soil samples looking for clues to predict where the samples come from. Students work in teams and defend their predictions to the other teams.Discussions follow about how soil is built from the materials in each ecosystem, and the contributions of soil organisms. Soil is then returned to where it came from.
- Jack-o-lanterns are filled with objects made of materials that may or may not decompose. Predictions are made. The Jack-o-lanterns are buried. In spring, an archaeological dig reveals what happened. This experiment focuses not only on decomposition but reinforces our school-wide effort to recycle everything we can.

Grade 4

- A study of tree ecoservices began as part of the 4th grade focus on Wisconsin Past and Present, during their lumberjack unit. Students work in small groups, learning how to accurately measure tree circumference, identifying their trees, and learning about their value to wildlife. Indoors, they log onto www.treebenefits.com/ca;culator to learn how much CO2 their tree sequesters annually and other important ecoservice data. Discussion focuses on the services living trees provide.
- Students visit a small limestone quarry at our school farm to observe the weathering occurring in this sedimentary rock formation and look for fossils as evidence of changes in our landscape over time.

<u>Grade 5</u>

• Follow the Drop is a water unit activity. Students explore the topography of our school property to observe where water flows. They calculate how much water flows annually and where it goes using an accurate map with elevation lines and rainfall data. This investigation combines math and science and connects to the school goal of water conservation, using watershed concepts encountered previously during the Koshkonong Creek study.

- Energy flow through an ecosystem is investigated through direct seasonal observations of food availability in our woods to create 4-season food webs. How to best present this information is part of the activity.
- Environmental and Ecology Club members (grades 3-4-5) have used knowledge gained through observing seasonal food availability in our woods to focus efforts on a real-life problem: although our woods has many species of native wildflowers, they are all spring bloomers. This is a problem for our woodland pollinators! We have experimented introducing native savannah wildflowers with later blooming periods to extend the nectar season in our woods. Often this involves creating sunnier areas through Buckthorn removal, as well as research on flower species, plotting data on phenology wheels (circular calendars) to ultimately improve our woodland habitat for wildlife, reversing previous habitat loss.
- 4th-5th Ecology Club members help with ridding our woods of invasive Buckthorn. One perennial problem: the large resprouting stumps. (We do not use herbicide because so many children play here.) So we brainstormed for an inexpensive safe solution that kids could accomplish. They decided preventing photosynthesis was worth trying, and that we could use cans rf black plastic to accomplish it. We set up the experiment choosing 50 stumps that were the same size and covered 25 with cans (repurposed from our kitchen recycle bin) and 25 with black plastic. This experiment modeled good scientific process, involved good data-keeping and led to solving a real-life problem in our real woods using repurposed materials. (This method of canning stumps is still being used in our woods!)

In summary, our environmental education activities connect to all curricular areas at all grade levels, expanding especially the experiential aspects of real science process and correlating with our school focus on social-emotional well-being. The examples provided here were chosen to reflect breadth, but they are just a fraction of the many activities in which students participate.