



2015-2016 School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

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

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

U.S. Department of Education Green Ribbon Schools 2015-2016

Public Charter Title I Magnet Private Independent Rural

Name of Principal: **Mr. Todd Macklem**

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

Official School Name: **West Middleton Elementary School**

(As it should appear on an award)

Official School Name Mailing Address: **7627 West Mineral Point Road, Verona, WI 53953**

(If address is P.O. Box, also include street address.)

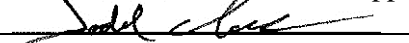
County: **Dane** State School Code Number *: **3549**

Telephone: **608-829-9361** Fax: **608-829-1147**

Web site/URL: **www.mcpasd.k12.wi.us/westmiddleton** E-mail: **tmacklem@mcpasd.k12.wi.us**

**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: **January 14, 2016**

(Principal's Signature)

Name of Superintendent: **Dr. Donald Johnson**

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



District Name: **Middleton-Cross Plains Area School District**

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

Ronald Johnson Date: **January 14, 2016**
(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: **Wisconsin Department of Public Instruction**

Name of Nominating Authority: **State Superintendent Tony Evers, PhD**

(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.

John Evers Date: **January 25, 2016**
(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

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

SUBMISSION

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

OMB Control Number: 1860-0509
Expiration Date: March 31, 2018

Public Burden Statement

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

U.S. Department of Education Green Ribbon Schools
Summary of Achievements
for
West Middleton Elementary School

West Middleton Elementary School has been a model site in the Middleton-Cross Plains Area School District for energy use and chemical reduction, outdoor learning environments and student sustainable initiatives such as composting cafeteria food waste that benefit the environment and school community. The school strives to provide relevant and engaging place-based learning opportunities for students to develop life-long habits, problem solving skills and strategies. West Middleton is working to create a sustainable structure in the pillars and elements to provide for a permanent shift in school culture towards daily healthy habits and sustainability practices. Located in Verona, Wisconsin, this suburban public elementary school has documented significant achievement in all three pillars of U.S. Department of Education Green Ribbon Schools.

Pillar I: Reduced Environmental Impact

West Middleton has achieved an Energy Star rating in 2008-2015 and is one of the most highly rated energy star schools in the Middleton-Cross Plains district in 2015. Staff and students conserve energy by using one bank of lights or daylighting only, rather than two or more to teach and learn. In addition, teachers keep their doors closed to maintain room temperature and prevent heating and cooling of the school hallways. Classrooms also operate on a heating and cooling schedule and use motion sensors to ensure efficient energy usage when occupied and unoccupied.

West Middleton teachers have recycling bins in each classroom. Students are taught proper recycling habits to utilize in the classroom and the lunchroom. A milk carton recycling program has been implemented to properly dispose of hundreds of milk cartons used each day plus food waste is composted and kept from the waste stream. In addition, students go through their lunches and donate unopened milk and packaged food to the local food pantry. West Middleton has a \$737/month cost avoidance due to their school-wide recycling program that keeps over 50% of discard out of the landfill.

Pillar II: Improved Health & Wellness

West Middleton uses nearly all green cleaning products and has developed an Indoor Air Quality Plan using the EPA's Tools for Schools program. Integrated Pest Management with the goal of changing the conditions that encourage pests rather than chemical use has kept the school safe from repeated pesticide use. The school provides special opportunities for living and maintaining a healthy lifestyle beyond the school day. The school also provides and maintains an Outdoor Education Center, a restored prairie and vegetable garden beds are in the works for spring of 2016. Students are planning a vegetable garden through various projects which will require planting, weeding, harvesting and sharing. The integrated PE/Health and Wellness curriculum "Rest-Eat-Move" is both a K-12 comprehensive education program, as well as a staff wellness initiative designed to provide skills and resources for achieving and sustaining healthy living for life. The "Rest" element focuses on three areas: Passive rest (how to get a good night's sleep); Active rest (daily physical decompression); and Mindful rest (strategies for stress reduction). The "Eat" portion of the program emphasizes the importance of choosing real (rather than processed) foods and stresses the enjoyment of buying, preparing and sharing meals. The "Move" portion of the program--for students, athletes and staff—aims at creating bodies that are physically "literate," balanced, and adaptable, rather than simply adapted.

Pillar III: Effective Environmental and Sustainability Education

The outdoor and sustainability learning, which happens on the West Middleton site is often driven by students on the Green Team. Several third and fourth grade teachers have begun to implement inquiry based learning in science. This approach allows for student input for researching areas of interest identified by the students. All grade levels take field trips to natural areas to focus on different aspects of sustainability concepts in line with their grade level dependent, FOSS units. West Middleton has one of the oldest restored prairies in Dane County with the restoration completed in 1983 and is an Earth Partnership School using the prairie as an outdoor teaching site.

Cross-Cutting Questions

West Middleton Elementary is a part of the Middleton-Cross Plains Area School District which received the U.S. Department of Education Green Ribbon Schools District Sustainability Award in 2015. The school has received “Sugar Maple” recognition, the highest recognition possible from Green & Healthy Schools Wisconsin. The school has also achieved EPA Energy Star recognition each year from 2008-2015. The school is a member of the Wisconsin Green Schools Network.

Scoring and Highlights:

The complete state application is too long to include in this nomination submission, so the applicant’s information has been summarized in the following pages, aligned with the pillars and elements. Each application was ranked by teams of external reviewers and internal reviewers, each with different areas of expertise, using a common ranking tool. In addition, the slate of nominees was forwarded to related state and federal agencies to ensure there were no compliance or regulatory issues.

West Middleton Elementary School serves 470 students in grades 4K – 4th grades with 74 staff. The school population has 13% of students who are limited English proficient and 23% of students from economically disadvantaged households.

The summary of the nominee’s achievements as reported in their application is presented in each pillar and element below. The focus area is in reference to Wisconsin’s application structure.

Pillar I: Reduced Environmental Impact

Element 1A: reduced or eliminated green house gas (GHG) emissions

Focus Area: Energy

West Middleton works with an energy management services provider (Johnson Controls) to help efficiency. Johnson Controls conducted a detailed energy audit in conjunction with district-wide energy performance project in August 2009. Eight sites, including West Middleton, had energy audits in October 2014 with Sustainable Engineering Group, Inc. as a part of Energy Star certification. The energy star certification process was just completed in November for 2015. The school was built in 1967 but even so has been an energy star school since 2004. West Middleton’s energy star score in 2004 was 81 and in the last 6 years has scored in the 90s with 2014 and 2015 scores of 93. West Middleton remains one of the most energy efficient schools in the district.

An 11,000 ft² addition to the building in 2006 resulted in new boilers (high efficiency), updated fluorescent lighting in the gym, and new unit ventilators. While the school does not meet green building standards, West Middleton conserves energy and has replaced inefficiency wherever possible.

Staff and students conserve energy by using one bank of lights or daylighting only, rather than two or more to teach and learn and west facing classrooms use daylighting whenever possible for all their lighting needs. In addition, teachers keep their doors closed to maintain room temperature and prevent heating and cooling of the school hallways. Classrooms also operate on a heating and cooling schedule and use motion sensors to ensure efficient energy usage when occupied and unoccupied. In 2014-15 school year, West Middleton did an energy audit of the school looking for energy using, non-essential equipment such as refrigerators and asked for their removal as per the district’s energy policy. An alternative refrigerator in the faculty room was offered for staff lunches to replace retired mini-refrigerators. The school’s Green Team are students that drive the culture of energy conservation by modeling good behavior, such as turning off lights when the room is unoccupied, and encouraging it in others.

In addition, the school implements the following energy efficiency practices and policies:

- Computer power management settings
- Thermostat temperature setpoints
- Hot water temperature setpoints
- Optimized programming of occupancy sensors
- A central control system to remotely monitor and control heating and cooling equipment
- Monitor energy usage by tracking monthly energy consumption and costs
- Guidelines for limiting personal appliances such as portable space heaters or mini-fridges

- Follow a schedule for regular maintenance of HVAC equipment
- Energy and water efficient product purchasing and procurement policy, last updated in 2010
- Energy Policy, developed in 2010

The school installed/upgraded energy-saving equipment OR renovated building(s) in the past ten years and has made the following improvements:

- Energy efficient lighting.: Move to Fluorescent 2011 and LED 2015
- Occupancy sensors: In 2006 and 2011 added occupancy sensors to Unit ventilators and lights
- Energy efficient HVAC system: new unit ventilators 2006
- Carpeting/flooring: Replacements have been made in multiple years throughout the entire building
- Roofing: Increased R value in 2009 and 2011
- Doors: Insulated door systems in 2006 and 2015
- Equipment (e.g. kitchen, offices): new Hobart dishwasher 2006 new efficient refrigerator 2015
- Insulation: Spray foam the perimeter soffit space to stop air infiltration in 2010
- Heating, Ventilation and Air Conditioning (HVAC): Totally new system to include boilers, unit ventilators, piping, air handling units. 2006
- Variable Frequency Drive: Used on pumps to manage flow to the need in 2006

With reduced funding for budgets, the cost of Green Power is prohibitive. We try to use our own local, low energy infrastructure and cultural conservation practices to reduce energy use and the associated cost.

The increase in both kBTU/sq.ft. and kBTU/student/sq.ft. are attributed to the increase in total floor area by approximately 11,000 sq. ft. (new kindergarten classrooms and a multi-purpose room) in 2006 and the decrease in enrollment caused by the relocation of the fifth grade classes to both district middle schools in 2014. Also, use of electricity basically doubled in volume because of the installation of a chiller and air conditioning at this site. Although we are using more energy to heat and cool West Middleton, we have increased our Cost Avoidance savings from \$4,472.00 for a 10% avoidance in year 2004 to \$14,384 which is a 21.3% cost avoidance in 2015. Added insulation, new energy-saving doors, plus an entire boiler and HVAC renovation over the past 11 years have brought about our positive Cost Avoidance figures. Our energy increase due to less students and larger square footage still shows a 21% cost avoidance due to energy efficiency. CO2 levels would have been much higher without energy conservation.

Facilities personnel have advanced training and certifications to help the facility operate efficiently including:

1. WASBO Facility Managers - Bill Eberhardt 5/18/2007
2. Practical Energy Management (PEM) - Neal Bickler 5/1/2010
3. Building Operator Certification (BOC) - Bill Eberhardt Level I since 2002, level II since 2011
4. Building Operator Certification (BOC) - Nick Smith 2014 Level 1

Students are involved in energy education:

Energy stars are given for conservation. While teachers encourage energy savings, the greatest success has come from students encouraging other students to save energy. Students have given energy conservation presentations so classmates know not only HOW to save energy but also WHY energy conservation is desirable.

Staff help identify and/or implement behavioral changes to reduce energy consumption:

Principal Macklem has had meetings encouraging staff to remove mini-refrigerators from classrooms and offices. He is working with staff to utilize the refrigerator in the staff lounge for lunches to reduce energy usage. Computers power down and shut off at the end of the day. Energy Manager, Neal Bickler encourages staff to check to make sure all computers are shut off at the end of the day and not to rely on technology to do this. Printers have a conservation feature with a double print order. This has reduced printing errors and volumes of paper saved. This saves energy as well as resources.

Energy is taught in the curriculum in the following ways:

- FOSS science units teach about energy in Grades 3 & 4. Grade 3 lessons involve matter and energy with grade 4 having an electricity unit.
- Kindergarten has a unit on recycling of wood and plastic.

Staff have participated in professional development related to energy and/or energy education:

West Middleton is located in the Madison area and has access to university classes such as KEEP and Focus on Energy courses that faculty including Principal Macklem have taken. Nick Smith, head custodian has taken Focus on Energy courses to improve energy conservation in his school. He also sends emails to help staff learn ways to conserve energy. Neal Bickler, MCPASD energy manager emails energy saving tips and encourages staff to power down and turn off energy consumptive devices during summers and when school is not in session. Bickler also visits schools and leaves encouraging notes for staff that are conserving energy. Professional development therefore is immersing staff in behaviors that are best practices in conservation as well as formal courses such as Wisconsin K-12 Energy Education Program (KEEP).

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

Focus Area: Water

West Middleton conserves water and protects water quality in the following ways:

- Our school meters water use and documents water use to identify substantial changes in water use.
- Our school conducts annual audits of the facility and irrigation systems to ensure they are free of water leaks and to identify opportunities for savings.
- Taps, faucets, and fountains at our school are cleaned at least twice annually to reduce contamination and screens and aerators are cleaned at least annually to remove particulate lead deposits.
- Our school has a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure).
- Our school has a medication disposal policy.
- Our school has a chemical disposal policy that helps ensure water quality.
- Our school has a grease trap or oil/water separator for the kitchen sanitary waste line.
- Our school inspects and cleans the school septic system per state requirements (as applicable)
- The kitchen staff are instructed to totally fill the dishwasher trays before running a load to conserve on energy and water. They also do not fill up the basins with water when using the sinks but rather use a conservative amount of water to fulfill the need.
- All chemicals are locked so spills are avoided.
- Dishwasher is Hobart water conservative model.
- Outside spigots are keyed so that only intentional use occurs.
- All cleaning supplies are citrus and hydrogen peroxide based.

Our school has the following equipment to help conserve water:

- Low-flow toilets (1.6 gallon per flush (gpf))
- Faucets with properly timed automatic shut-off
- Hand washing faucets equipped with 0.5 gallon per minute (gpm) aerators.
- Efficient dishwashing equipment.
- Air conditioning equipment does not utilize water.
- Optimized water or steam based heating systems to reduce blow-off.
- Water softening systems (if used) regenerate based on water volume treated and not time.

Students are water conservative when washing hands in classroom sinks. Students are trained to count to 3 when drinking water from drinking fountains, which reduces the time the fountains are running. Students have generated signs for hallways encouraging conservation. Students have encouraged other students to turn off faucets (if they forget) when they leave the restroom.

Water topics are taught in the following ways:

- FOSS units in Grade 3 address water cycle, water conservation and water pollution.
- 4K has a unit around Earth Day with one of their topics being the conservation of water and energy.

Kitchen staff receive annual inservice about reducing production waste including conservation of water techniques.

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

Focus Area: School Site

Our school has the following runoff or stormwater management practices:

- Rain garden
- Downspouts directed to vegetated areas
- Mowing, leaf collection, and snow removal managed to keep removed materials off impermeable surfaces
- Use of leakproof lids on dumpsters or other outdoor waste collection bins
- Other ways of reducing storm water runoff and/or impermeable surfaces (specify):: Rain barrels are planned for the upcoming school garden.

Our school uses the following landscaping practices:

- use of alternative water sources (ie. grey water, rainwater) for irrigation.
- use of mulch and native plants to reduce watering needs
- landscaping designed to be water-efficient and/or regionally appropriate
- use of broom or blower to clean driveways and walkways
- No irrigation system for the lawn is used. No fertilizers, herbicides or pesticides used.

School grounds include native landscaping that is water conservative and grassy areas are not watered. Stormwater is collected in rain gardens. There is a plan to enlarge and increase the number of current rain gardens. The large on campus prairie with native plants demonstrates to students and staff that long roots help native plants survive drought conditions unlike grassy lawns with their shallow root systems.

- Our school has a habitat garden. Approximate size: 2.5 acre prairie and .5 acres of rain gardens, and also has raised native plant gardens
- Our school has a food garden. Approximate size: A food garden is in the planning stages to be planted in spring. Size is yet to be determined by the Green Team. More committee members are currently been recruited.
- Our school uses the existing site, lawns, parking areas, playgrounds, etc. for outdoor teaching.
- Our school has integrated natural features into the playground area.
- Our school has an arboretum. Approximate size: 2 acres with 48 mixed hardwoods and conifers.

The school has revamped fencing for safety since the school faces a county highway. The drainage "river" that forms in Feb/Mar is coned off for safety. Only students in the company of their teacher have access for science experiments. Without a stream close by, this intermittent stream provides a temporary outdoor learning area for volume flow rates and other science experiments.

Integrated Pest Management mandates that pesticides/herbicides are used sparingly on school grounds and applied only when school is not in session such as summer. Multiple rain gardens and the extensive prairie direct storm water to infiltrate and get filtered by native plants. Wasp nests are discouraged using soap and water as deterrents.

Element 1C: Reduced waste production

Focus Area: Recycling & Waste Management

In the classrooms, West Middleton teachers have recycling bins. Students are taught proper recycling habits to utilize in the classroom and the lunchroom. All classrooms have separate recycling and trash bins and peer pressure helps direct materials to the appropriate bin. Some teachers have begun composting leftover snack items in their classrooms.

In the cafeteria, the Green Team student members encourage recycling and composting of food waste. A milk carton recycling program has been implemented to properly dispose of hundreds of milk cartons used each day plus food waste is composted and kept from the waste stream. By composting and recycling milk cartons, waste from the cafeteria lunch program has been greatly reduced. This can be easily observed in the need to empty the recycling dumpster vs the trash dumpster. In addition, students go through their lunches and donate unopened and packaged food to the local food pantry. Monitors are in place in the cafeteria to make sure students recycle and compost correctly. West Middleton has a \$737/month cost avoidance due to their school-wide recycling program that keeps over 50% of discard out of the landfill.

As part of the curriculum, kindergarten has a unit that involves recycling of wood and paper. In other grades, these topics are not a part of the curriculum but are rather part of the culture of West Middleton School. Staff encourage recycling in the classroom and cafeteria. Recycling signs are used to help encourage and identify which items should be recycled. The results of this type of education has been very positive and the recycling/composting program has been a successful endeavor.

The director of food services educates kitchen staff annually regarding waste reduction at the production level and recycling. A study was done 3 years ago that focused on kitchen waste volume that resulted in training for new production techniques that reduced identified waste. Lower meal cost is attributed to the cost of waste disposal being less due to less waste. Nick Smith monitors the weight of the compost saved from the landfill. This savings is tracked over time. West Middleton has doubled the amount of recycling while reducing its landfill waste by half during the lunch periods. Cost avoidance dollars throughout the district are reported to the public and school board on an annual basis. Of the district elementary schools West Middleton has the third highest cost avoidance due to their recycling and composting program. These figures are for the last completed school year, 2014-15 and West Middleton only began composting cafeteria food waste in the spring of 2015. Therefore, the cost avoidance due to recycling/composting should grow during 2015-16 school year.

Our school has a policy to minimize the generation of all waste types.

Recycling and Waste Reduction policy #743:

The District shall integrate the concept of resource conservation, including waste reduction and recycling, into the environmental education curriculum at all levels of the school system. In addition, the District shall:

1. Decrease the amount of waste or consumable materials by:

- ✓ Reduction of the consumption of consumable materials whenever possible.
- ✓ Full utilization of all materials prior to disposal.
- ✓ Minimization of the use of non-biodegradable products whenever possible.

2. Cooperate with, and participate in, recycling efforts being made by the municipalities in which the District resides and Dane County. As systems for the recovering of waste and recycling are developed within the municipalities and county, the District shall participate by appropriately separating and allowing recovery of recyclable waste products.

3. Purchase recycled products where financially viable. The District encourages suppliers, both private and public, to make recyclable products available for purchase by the public schools.

The Facilities Manager is responsible for an ongoing recycling plan of action for the District. Building principals shall be responsible for the recycling programs in their assigned buildings.

Our school recycles the following materials:

- ✓ Paper
- ✓ Glass
- ✓ Metals
- ✓ Plastic Containers
- ✓ Ink Cartridges
- ✓ Milk and Juice Cartons
- ✓ Batteries
- ✓ Computers

Most surplus school equipment is either sold or recycled in an environmentally correct manner.

Recycling bins are located in hallways, classrooms, cafeteria, staff lounge, main office, and the IMC. Recycling bins are clearly labeled showing what items are recyclable, placed next to "landfill" containers and put in convenient places to encourage recycling. Trash cans are labeled "landfill" to further educate students where trash ends up.

In 2014-15, the district purchased copy paper with 30% recycled content and experienced a high amount of paper waste throughout the district in the high capacity copy machines. Therefore the decision was made to purchase virgin paper to reduce copy paper waste.

- Our school has a small scale, compost demonstration site used primarily for educational opportunities.
- Our school composts our cafeteria food waste.
- Our school composts school landscape waste material.
- Any unopened milk or packaged food is donated to the local food pantry. 30,000 lbs of edible food district-wide are donated per year to Middleton Outreach Ministry (MOM) Food Pantry. West Middleton students understand that giving to charity is far better than discarding good food.

Our school or district has a policy on the proper storage, transportation, and disposal of regulated wastes that is actively enforced and followed at our facility. Regulated waste includes medical waste, used oil, universal wastes, RCRA hazardous waste, and e-waste. West Middleton does not generate hazardous waste.

- Our school disposes of unwanted computer and electronic products through an approved recycling facility or E-cycle Wisconsin program.
- All our computer purchases are Electronic Product Environmental Assessment Tool (EPEAT) certified products.
- Unwanted computers or furniture is first sold through district "garage sales" before being considered for recycling. Reuse is deemed favorable over recycling.
- All district schools have software that requires teachers to actually select what they want printed at the printer (after selecting print on the computer) to reduce mistake printing. This has reduced the paper use district-wide by 693 reams of paper in the 2013-14 school year, (most recent data). This translates to 756 sheets of paper per West Middleton student saved from the waste/recycle stream. Avoiding waste printing also eliminates the ink that would have been used in printing.
- All printer cartridges are recycled and reused.
- Paper napkins are purchased chlorine-free so they may be composted as well.

Teachers were given a slide presentation to educate students on the differences among trash, recycling, and composting items. There's a "Green Bin" in the teacher book room from which teachers may borrow books to share with their classes, and there is a similar bin of books in the library for students to check out books on composting.

Element 1C: Use of alternative transportation

Focus Area: Transportation

The school conducted a formal internal transportation audit on August 28, 2015. While the majority of the students ride bus, 5% Carpool (2+ in the car). The most sustainable and safe practice for all students is to ride the bus, free of charge. West Middleton is not a neighborhood school. There are no sidewalks or safe highway crosswalks.

Staff have participated in professional development related to sustainable transportation and air quality education:

- MCPASD sent the transportation services manager (TSM) and transition transportation coordinator (TTC) to National Association for Pupil Transportation conference in November to learn of alternatives to gasoline and diesel fuel such as propane, CNG, and diesel electric hybrids.
- Transportation staff, the Superintendent and Assistant Superintendent are all inserviced on the latest technology learned at the conference.
- WI Department of Energy held conferences in 2012 on Compressed Natural Gas opportunities that were attended by TTC.

- All transportation staff are instructed in low idling procedures....at 20F--10F limit is 15 min/hr and below - 10F idling as necessary. This low idling policy reduces emissions, wear and tear on the engine, and saves \$8-10,000 annually districtwide. In winter the buses were idling as much as 200 hours/week and after GPS equipment was installed to monitor and enforce idling policy in 2012, the average was reduced to 15 hours/week greatly reducing fuel use and emissions.

The school also offers opportunities that help to reduce vehicle emissions, fuel consumption, and traffic, and/or promote physical activity to get to school where safe and possible, including:

- Bike racks, showers, lockers, and/or other bike amenities.
- Offers subsidized transit passes.
- Safe Routes to School program : Town of Middleton submitted a grant request from SRTS to build a bridge so WM students can safely cross the highway.
- A well-publicized, no idling policy that applies to all vehicles (including school buses).
- Consistent, clear communications to families regarding transportation options and policies.
- Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.
- A policy pertaining to fuel-efficient fleet vehicle purchasing.
- A plan to regularly review bus routing to optimize passenger/miles driven ratios
- School bus contracts include restricted idling and/or use of newer, retrofitted or alternative-fuel powered buses
- Participates in EPA's Clean School Bus program
- Clean diesel/bio diesel/alternative fuel

The district uses routing software, Transfinder, to locate stops to shorten routes for route optimization and stop optimization. This is reviewed by the transportation director to find the best routes to minimize time and road distance for riders as well as to increase efficiency and decrease total emissions.

WM students are transported by Middleton-Cross Plains Area School District buses. District transportation includes:

*buses retrofitted with diesel oxidation catalyst using EPA region 5 Midwest clean diesel initiative grant *ultra low sulfur diesel fuel used

*From 2010 to 2014 retired 24, 1993-99 buses and added 31 new, low emission and better MPG buses

*Transportation center requires no idling when dropping off or picking up students at school

*GPS equipment used to monitor reduced idling

*one suburban with flex fuel option

*district owns 4 suburbans for transporting small groups

*Use routing software, Transfinder, to locate stops to shorten routes for route optimization and stop optimization.

*district participates in the "Safe Routes to School" Program.

*district has a well-publicized no idling policy that applies to all vehicles (including school buses).

*district has established Safe Pedestrian Routes to school which are distributed to parents and posted in school offices.

*District uses a rubric that includes age, condition of bus, power train, and cost to maintain the bus, to replace inefficient buses.

*2015 four new buses replaced inefficient buses

Pillar II: Improved Health & Wellness

Element 2A: Integrated school environmental health program

Focus Area: Environmental Health

The school is implementing a formal health and safety program and a comprehensive indoor air quality management program that is consistent with EPA's Indoor Air Quality (IAQ) Tools for Schools. The school does not have labs that use chemicals.

Frequent handwashing is encouraged in all classrooms and after restroom use. In this elementary setting where chemical use is greatly reduced inside as well as outside the building and no labs that would use chemicals are in the curriculum, FOSS units do not include environmental health topics.

All staff receive annual blood born pathogen training and complete an online assessment. Healthy Cleaning practices provide proper training of custodians in the hazards, use, maintenance and disposal of cleaning chemicals, dispensing equipment, and packaging.

The school has taken the following actions to improve contaminant control and ventilation:

- Our School has taken actions to prevent exposure to asthma triggers such as mold, dust, and pet dander.
- Our school has installed one or more energy recovery ventilation systems to bring in fresh air for use in the HVAC system.
- Our school meets ASHRAE Standard 62.1-2010 (Ventilation for acceptable indoor air quality)
- Our school has installed local exhaust systems for major airborne contaminant sources
- Our school has CO alarms that meet the requirements of the National Fire Protection Association Code 720
- Our staff visually inspects all our school's structures on a monthly basis to ensure they are free of mold, moisture, and water leakage.
- Our school's indoor relative humidity is maintained below 60%
- Our school has moisture resistant materials/ protective systems installed (i.e. flooring, tub/shower, backing, and piping).
- There are no wood structures on school grounds that contain chromate copper arsenate
- Our school has combustion appliances that are annually inspected to ensure they are not releasing carbon monoxide; OR not applicable – the school does not have combustion appliances
- All of the ground contact classrooms at our school have been tested for radon within the last 24 months.

There is a chemical management program in place that implements a chemical purchasing policy that supports low or no-VOC products and substitution when less hazardous alternatives are available, storage and labeling, training and handling, hazard communication, spills (clean up and disposal) and selecting third-party certified green cleaning products.

School Healthy Cleaning Policy:

The Middleton-Cross Plains Area School District shall develop, implement, and monitor a Healthy Cleaning (HC) plan designed to optimize conditions for learning and minimize human exposure to hazardous chemicals, allergens, irritants, and pollutants. It is therefore the policy of this school to incorporate Healthy Cleaning procedures for all school buildings.

Green Clean Plan:

A comprehensive Healthy Cleaning plan encompasses cleaning practices, as well as the procurement of cleaning products, equipment and training. There are dozens of manufacturers who offer “certified” green cleaning chemicals that work well and are cost-competitive compared to traditional products. Vacuums are available with high-efficiency filters that can capture microscopic materials that might adversely impact building occupant health or damage sensitive equipment.

Cleaning Practices:

Changes in the frequency, technique or time when cleaning is performed can be as important as the products and equipment being used. HC promotes the use of less toxic or non-toxic cleaners and the use of equipment that would reduce the need to use harsh, conventional chemicals. The technology of the cleaning industry has made remarkable advances with newer technologies that perform effectively, reduce health and environmental impacts, and are cost competitive compared with conventional products.

Procurement of Cleaning Products and Equipment:

The products chosen to accomplish the tasks can have significant impacts on the health and performance of students, staff, and the people performing the cleaning. Choices in cleaning products and equipment dramatically impact the lifespan of building materials and furnishings while preserving the environment as a whole.

Training:

Healthy Cleaning practices provide proper training of custodians in the hazards, use, maintenance and disposal of cleaning chemicals, dispensing equipment, and packaging.

Storage Procedures:

Many cleaning products arrive in concentrated form may require special handling, storage, and disposal. Staff must plan for the physically isolated storage, safe usage, and proper disposal of cleaning agents and other hazardous chemicals that cannot be eliminated from school buildings and grounds.

Education:

Staff, students, custodians and the public are educated about the potential problems of traditional cleaning products, the Healthy Cleaning policy and procedures. Custodial staff, administrators, teachers, students, vendors and visitors can learn about what they can do to promote a healthy school environment, such as recycling paper and plastic; maintaining uncluttered classrooms and workspaces; and handling spills properly.

An Integrated Pest Management (IPM) approach for controlling insects, rodents and weeds is used at Middleton-Cross Plains School District. Our IPM approach focuses on making the school building and grounds an unfavorable habitat for these pests by removing food and water sources and eliminating their hiding and breeding places. We accomplish this through routine cleaning and maintenance. We routinely monitor the school buildings and grounds to detect any pests that are present. Pest sightings are reported to our IPM coordinator (Bill Eberhardt) who evaluates the "pest problem" and determines the appropriate pest management techniques to use to address the problem. The techniques can include increased sanitation, modifying storage practices, sealing entry points, physically removing the pest, etc. We only use chemicals (pesticides) when necessary to eliminate a pest problem. The school will try to use the least toxic products when possible.

The volume of annual pesticide use is 10 gallons per 6500 students per year at the School District level.

- Our school has an employee who is certified to apply pesticides.
- Our school contracts with a certified and licensed pesticide applicator.
- Our school posts a notice at the time of pesticide application and for at least 72 hours following application.
- Our school provides pest control policies and methods of application to parents and school employees and meets posting requirements.
- Our school makes available copies of pesticide labels, copies of notices, material safety data sheets (MSDS) and annual summaries of pesticide application in an accessible location.
- Our school prohibits students from entering a treated area for at least 8 hours after the treatment or longer if required by the pesticide label.

The school follows the Middleton-Cross Plains Area School District's Indoor Environmental Quality Management Plan, established May 1, 2012. Some of the IEQ Policies, Plans and Guidelines include:

- **Non-Smoking Policy:** Wisconsin Statute 101.123 (2) (a) 2 prohibits tobacco use in all educational facilities.
- **Animals in the Classroom Policy:** The educational value of animals in the school setting is recognized by the Middleton-Cross Plains Area School District. However, conditions must be maintained to insure the safety and well being of students, staff and the animals. Live animals may be brought into the classroom as part of a written curriculum, with the approval of the school principal. Animals trained to assist individuals with disabilities are allowed in schools provided the health, safety and welfare of the student, staff and animal are not compromised. Specific restrictions regarding reptiles, undomesticated animals, birds, wolf hybrids and stray animals apply. In general, animals must be handled according to the recommendations of the Wisconsin Humane Society and Wisconsin Division of Health.
- **Hazardous Materials Plan:** Continuous efforts are made to minimize hazardous materials within the school district. Science chemical waste is neutralized and disposed of in-house by trained personnel. Where hazardous waste is generated, appropriate disposal is contracted and waste manifested to insure safe and compliant disposal. Manifesting and program records are on file at the District Operations Center. Reportable quantities of Hazardous chemicals as defined by the Wisconsin Emergency Management are inventoried and reported annually
- **Asbestos Hazard Emergency Response Act (AHERA):** AHERA is a federal law which requires that all primary and secondary schools develop and implement a plan for managing all district building materials which may contain asbestos. As part of this plan, very specific practices are mandated including: periodic inspections, maintenance, removal practices and annual notification. New buildings are inspected and detailed inventories are maintained. Asbestos materials are also investigated prior to any renovations which may disturb suspect materials. The complete asbestos management plan is accessible on the district's Health and Safety page found on the district's web site.

- Lead Plan: The Middleton–Cross Plains Area School District’s lead paint policy strictly follows the mandated Renovation, Repair and Painting Rule – DHS 163. This rule requires sampling and safe work practices where lead painted coatings are disturbed (more than 20 square feet outdoors, more than 6 square feet indoors) in pre-1978, child occupied buildings. The plan and the historical sampling results and inspection details are accessible on the district’s Health and Safety page found on the District’s web site.
- Radon Gas Plan: Periodic radon samples are gathered in occupied areas below grade (ground level). Where conducted, testing is performed for a 90 day period, during “closed” conditions (heating season) to demonstrate worst case exposure conditions. Specific sampling results are on file at the District Operation Center.
- Anti-Idling Guideline: Exposure to diesel exhaust can cause lung damage and respiratory problems. Diesel exhaust exacerbates asthma, existing allergies, and long-term exposure is thought to increase the risk of lung cancer. The Middleton–Cross Plains Area School District is committed to eliminate all unnecessary idling by school buses. School buses are directed to not idle unnecessarily on school grounds. Exceptions are made for excessive weather conditions. The general temperature and time allotments are:
 - Above 20° 5 min.
 - 10° - 20° 15 min.
 - 10° below as needed
- Preventive maintenance involves routine inspection, adjustment, and repair of building structures and systems, including the heating, ventilating, and air conditioning system (HVAC); unit ventilators; local exhaust; fresh air intakes; and flooring. Preventive maintenance plays a major role in maintaining the quality of air by assuring that the building systems are operating effectively and efficiently to maintain comfortable temperatures and humidity in occupied spaces. The Middleton-Cross Plains Area School District addresses preventive maintenance by maintaining and documenting equipment and system maintenance according to manufacturer’s recommendations and best practice. Specific written procedures are available upon request.
- Microbial Management: Microbials such as mold, bacteria, and viruses are a significant cause of illness, health symptoms, and discomfort for building occupants. Moisture control is the most effective way to control microbial growth. The Middleton-Cross Plains Area School District manages microbial concerns by promptly investigating signs of water intrusion and/or microbial growth. Materials contaminated with microbials will be promptly and appropriately cleaned or replaced following current guidance document recommendations. Mold growth will be properly removed from non-porous surfaces by trained staff or contracted service personnel using appropriate methods and equipment. Remediation projects that cannot be handled by trained staff will be contracted to appropriate professionals. Specific control and protection measures are used as needed for large-scale remediation projects. Complete professional remediation is verified through third party clearance testing as necessary.

Staff Responsibilities for Maintaining Good IEQ:

Middleton-Cross Plains Area School District staff members play an important role in maintaining and improving environmental quality. Since the actions of staff members can affect the quality of the indoor environment in school buildings, employees are provided with information and training about IEQ as appropriate. To the extent possible and as resources allow, the district will:

- A. Train Maintenance and custodial staff annually in general concepts of IEQ including indoor air quality, integrated pest management, microbial identification and cleaning, etc. as part of the annual training process. New staff members will be informed on appropriate elements of as part of the initial hiring and training process.
- B. Instruct custodians to follow all policies regarding cleaning chemicals, ensure that the school is regularly vacuumed and swept, clean drain pans, empty trash cans, and check drain pipes regularly. They also look for signs of pest problems and inform the appropriate party of any issues.
- C. Inform general staff members as needed through e-mail communication, personal communication and/or all staff briefings.
- D. Instruct teachers to help to maintain adequate airflow from ventilators by: refraining from stacking books or other items on ventilators, refraining from covering vents with posters, refraining from turning off fans due to noise, removing clutter in their classrooms, properly disposing of hazardous waste, and enforcing the school’s various IEQ policies in their classrooms.
- E. Communicate the school’s activities to the school board, staff, students, and community and ensure that the school is implementing IEQ policies appropriately.

- F. Ensure that the Facility Operators maintain HVAC systems, properly operate systems and that all buildings are maintained adequately and cleaned regularly.
- G. Ensure that Health Officers/School Nurses track illnesses, such as asthma, that may provide an early warning of IEQ problems.

Prevention of IEQ Problems

The Middleton-Cross Plains Area School District is committed to preventing IEQ problems. To reach this goal, to the extent possible and as resources allow, the district will:

- A. Keep equipment and operating systems in good working condition and make every effort to best accommodate the needs and comfort of students, staff, and other users of the school building.
- B. Evaluate building systems and conduct walkthroughs of the various district buildings, schedule regular review and maintenance for those systems that require continual attention, and handle IEQ concerns identified during the walkthroughs in accordance with this plan; and
- C. Comply with all applicable codes and operate current systems according to manufacturer design to help ensure high quality facilities for all district functions.

Element 2B: Nutrition & Fitness

Focus Area: Health & Wellness

The school promotes nutrition, physical activity and overall school health through the following actions:

- Our school has a School Health Advisory Council (SHAC) or school wellness committee, established: 09/02/2014.
- Our school has implemented a comprehensive school physical activity program (CDC) or implemented the DPI Active Schools: Core 4+.
- Students spend at least 120 minutes per week per year in school supervised physical education.
- Our school offers opportunities for students to be physically active outside of physical education classes (e.g., recess, open gym, before/after school programs, classroom activity breaks).
- Our school promotes hand washing for staff and students.
- District REM program (Rest-Eat-Move). The District has adopted its own wellness program for all students and staff. The integrated PE/Health and Wellness curriculum "Rest-Eat-Move" is both a K-12 comprehensive education program as well as a staff wellness initiative designed to provide skills and resources for achieving and sustaining fitness for a lifetime. The "Rest" element focuses on three areas: Passive rest (how to get a good night's sleep); Active rest (daily physical decompression) and Mindful rest (strategies for stress reduction). The "Eat" portion of the program emphasizes the importance of choosing real (rather than processed) foods and stresses the enjoyment of buying, preparing and sharing meals. The "Move" portion of the program--for students, athletes and staff, alike--aims at creating bodies that are physically "literate" and adaptable, rather than simply adapted.

The school provides a shared school nurse (30%) and a health assistant (full time), a 50% shared school psychologist, 25% shared school social worker, a full time counselor, and 50% behavioral interventionist. Parents and staff are all informed of the services provided and this information is on the website.

The school provides outdoor education, physical activity, and nature-based recreation for your staff and students: PE activities: Students do fitness runs including the mile run and field/tagging games. Students have snowshoed in the prairie during winter. Every year there is a fourth grade track meet, an all-day event, held at Middleton High School. Classroom teachers often have their students hike using trails through the prairie. Several grades use the outdoor area in spring for field day where parents come and help run activities.

Students help identify and/or implement behavioral changes to improve health and wellness in the following ways: Third and Fourth graders are selected to be members of the Pride Pack which is a PBIS team. Their goal is to help increase positive actions for students. They teach and model desired behaviors through peer resolution.

Staff help identify and/or implement behavioral changes to improve health and wellness in the following ways: Staff help students improve their health and wellness by instructing in the R-E-M program. As noted above, this is an all inclusive wellness program involving rest, good food and how to move for health, strength and flexibility. The staff Wellness Committee has helped target different training opportunities for staff development. Some of these include mindfulness training, yoga, and journaling.

Health, nutrition, wellness, and physical activity are taught in the following ways:

- Inside we use pedometers to track fitness levels, incorporate healthy eating into games by using My Plate and food cards and consistently have an independent warm up that consists of strength, endurance and stretching in grades 2-4.
- We have a health theme for each month and try to plan this into each month's activities.
- We have a Girls on the Run team after school for girls grades 3 and 4. This group meets 2x/week and incorporates lessons on well being with running.
- Our community service project this fall is collecting canned food for MOM food pantry.

Professional development or training for staff related to health and wellness includes:

- Introduction to Movement is a four-week course offered to staff taught by the MCPASD wellness coordinator. The goal is to familiarize staff with the available facilities, equipment and expertise available within the district.
- All staff are invited to participate in and help create "Rest, Eat, Move" wellness opportunities. Introductory sessions were conducted last Jan-Feb and included instruction in understanding food and health connections; functional movement and training opportunities and stress reduction through mindfulness and meditation.
- A Health Risk Assessment is mandatory for all staff with health insurance through MCPASD.
- A monthly wellness letter is emailed to all staff with tips on healthy living. This was begun in 2014-15 school year.
- The media coordinator at Middleton High School has produced several short wellness-oriented video segments featuring the District Wellness Coordinator aimed at introducing various aspects of the comprehensive Rest - EAT - MOVE Physical Education / Health and Wellness initiative for district staff.
- Experts from the UW (Physical Therapy; Nutritional Science; Sports Medicine; Sleep Clinic, Sports-Med, etc.) are invited to present on various topics that district employees may take advantage of.
- There are three wellness equipment carts around the district. One is at West Middleton. Each cart contains multiples of the following equipment: Mini-bands; medicine-balls; light-denomination dumbbells; foam-rolls; sticks, straps (with handles); and long surgical-tubing loops. The idea is to offer a portable option for teacher & staff movement sessions. Simple equipment is used because simplicity yields complexity in training. Jason Eckes has started to teach the WM staff about how the equipment can be used.

Additional actions to promote healthy behaviors and overall wellness of staff, students, and the surrounding community:

The initial trial-run of after-school wellness sessions for staff (Tuesdays & Thursdays) occurred during the spring semester, last year (at the high school) using equipment similar to what was purchased for the three wellness carts. In addition, an extensive library of movement video clips is being created that would be available to staff--to assist in learning and to help people become comfortable with the fine points of the training ideas used. The goal is to create wellness "tribes" . . . groups of teachers and staff who meet regularly to move. That may be with the carts; it might be Zumba classes (being done at Elm Lawn for all district staff); it could be Yoga (Betsy Delzer is offering Yoga throughout the district); it might be a walking group . . . anything. The West Middleton "tribe" is free to decide the venue for their wellness program or partake in district offerings.

WM implemented a staff wellness activity each month last year. Staff was encouraged to participate in a 1-3 week activity and turn in a completed form for a prize drawing. The activities included: Drinking more water each day, Trying a new food each week or increasing fruit/veggies in their daily diet, increasing fitness activities throughout the week, keeping a gratitude journal, Increasing hours sleeping each night, walking so many steps/miles per week, random acts of kindness/pay it forward, guided meditation at staff meetings, and after school fitness classes.

The school has a health, nutrition, and/or wellness policy to improve health and wellness of students and staff:

WELLNESS POLICIES ON PHYSICAL ACTIVITY AND NUTRITION

The Middleton-Cross Plains Area School District is committed to providing school environments that promote and protect children's and adult's health, well-being, and ability to learn by supporting healthy eating and physical activity. Therefore, it is the policy of the Middleton-Cross Plains Area School District that:

- *The school district will engage students, parents, teachers, food service professionals, health professionals, and other interested community members in developing, implementing, monitoring, and reviewing district-wide nutrition and physical activity policies.*
 - *All students in grades K-12 will have opportunities, support, and encouragement to be physically active on a regular basis.*
 - *Qualified child nutrition professionals will provide students with access to a variety of affordable, nutritious, and appealing foods that meet the health and nutrition needs of students; and will provide clean, safe settings and adequate time for students to eat.*
 - *All schools in our district will participate in the National School Lunch Program and targeted schools will participate in the School Breakfast Program.*
 - *Schools will provide nutrition education and physical education to foster lifelong habits of healthy eating and physical activity, and will establish linkages between health education and school meal programs, and with related community services.*
-
- Our school participates in the National School Breakfast Program.
 - Our school participates in the National School Lunch Program.
 - All foods and beverages sold during the school day meet the USDA's Smart Snacks in School nutrition standards.
 - Our school or district has a policy for healthy classroom snacks.
 - Our school participates in Farm to School activities, including local food procurement, established: 2006
 - Our school has a garden that supplies food for our students in the cafeteria, a cooking or garden class or to the community, pending 2015-2016
 - Our school prohibits advertising and promotion of less nutritious foods and beverages on school property.
 - Our school has on-site indoor and outdoor physical activity facilities available to students, staff, and the community.
 - Our school purchases food locally sourced or certified as "environmentally preferable" - Gap certified 10%

West Middleton students are offered at least one fruit and one vegetable daily for their hot lunch. Skim and 1% milk are also offered. Hand washing is done several times a day including before lunch and in instances where students have been identified as having food allergies.

The school follows the district policy for harassment and bullying, #411.1. Bullying of students and staff will not be tolerated and is prohibited in the Middleton-Cross Plains Area School District. All forms of harassment in cyberspace, commonly referred to as cyber bullying, are also unacceptable and viewed as a violation of this policy. This policy applies to all educational activities and environments supported by the district. The Board of Education considers these actions to be detrimental to the health and safety of students and staff, and disruptive to the educational environment. Students, parents, and staff may report bullying 24/7 utilizing the district online reporting system, School Works. There is also a district telephone hotline to report bullying. Both systems allow anonymous reporting.

Pillar III: Effective Environmental and Sustainability Education

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems

Focus Area: Environmental & Sustainability Education

The school has a K-12 scope and sequence that integrates environmental and/or sustainability education as part of the regular coursework at all grade levels.

Each grade level discusses recycling and composting as it is something that we believe in at our school. Energy conservation is also stressed. Specific environmental education topics in the curriculum include:

- K...Animals/trees and recycling wood/paper.
- First grade: insects, balance & motion, soil and soil critters.
- Second grade: new plants, solids & liquids, Air & weather.
- Third grade: water, matter and energy.
- Fourth grade: structures of life, magnetism & electricity, Earth materials.

Environmental education also takes place out in the greater community. Kindergarten takes field trips to farms, pumpkin patches, and the West Middleton prairie every season of the year. First grade goes to the Geology Museum to study rocks and Aldo Leopold Nature Center to learn about insects, their environment, what their food sources are, etc. Second grade goes to Aldo Leopold Nature Center to study plants and weather. Third grade has been to the Pheasant Branch Conservancy to learn about water concepts including watersheds, groundwater and water testing. Third grade also goes to the International Crane Foundation each year to learn about global environmental efforts that saved the whooping crane from extinction and about other environmental factors that threaten cranes and various wildlife species. Fourth grade goes to Cave of the Mounds to learn about land forms and rock; they also study Wisconsin History, including how the land is farmed and preserved and the Dairy Expo to learn about dairy production in the state. Fourth grade also goes to the Pope Farm Park twice annually. Pope Farm Park is the convergence of 3 watersheds and the location of glacial recession in the area. Students in the fall learn about native peoples diet by observing examples of wild foods and seasonings and suggesting a recipe for a stew and/or a bread using these ingredients. The school is an Earth Partnership School with a school prairie that all levels use in various curriculum activities.

Third grade also has a market each year in which students sell items they've made, many from recycled objects, and the money goes to a different charity each year: two years it went toward building a solar powered school in Uganda, one year it went for school supplies in Nepal, last year it went to MOM Food Pantry.

All of the grade levels celebrate Earth Day with various activities using recycled goods and cleaning up around the school grounds and prairie. Students also planted fruit trees for Arbor Day.

WM is located in the vicinity of UW-Madison and numerous other institutions of higher education. There are a variety of courses that are offered through UW-Extension, etc. that staff can participate in. All new staff in the district were introduced in 2014 and 2015 to the opportunities to educate students through programming at the Pheasant Branch Conservancy. Included was cited research for the benefits of outdoor education. In addition, staff members have participated in Earth Partnership for Schools, Green & Healthy Schools Workshops, KEEP (WI K-12 Energy Education Program), and Focus on Energy training.

West Middleton staff use the school grounds, school forests, and outdoor sites for teaching and learning in the following manner: Every grade investigates the prairie for observation, science activities, or for general inquiry. Trees on the school grounds are used in the tree FOSS unit in kindergarten. First grade studies insects in the prairie. Second grade studies plants outdoors in terms of seeds, bulbs and roots. Fourth grade also uses outdoor sites to identify plant and animal interrelationships.

Principal Macklem verbally encourages teachers to utilize the out of doors as a teaching strategy. The district has a field trip fund to encourage teachers to take field trips to community nature sites such as Pheasant Branch Conservancy and Pope Farm Park Conservancy that utilize naturalists to enhance and support FOSS science units. Teachers utilize the school prairie in lessons from using observational skills to habitat. In spring during snow melt a stream develops on school grounds that teachers use to hone student observational skills, writing skills, and math calculations to determine flow rate.

The school encourages educational use of the school grounds, school forests, and outdoor teaching sites:

In spring of 2015, trees were donated by a local company, Modern Woodmen of America and students helped to plant the 5 new apple trees.

School has integrated wood chips in the playground and incorporated boulders for seating in the area with oaks providing shade as teachers instruct a lesson outdoors. The school is an Earth Partnership School that sent 2 teams of teachers over two summers to the UW-Arboretum for instruction on planting and caring for

a prairie and also received a binder of lessons that can be used with students in all grade levels and subjects. Teachers were trained in using the prairie curriculum to feel comfortable including these lessons at West Middleton.

Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills

Focus Area: Environmental & Sustainability Education

West Middleton teachers are making a window into composting. The school librarian has agreed to have a glass terrarium where all students can view the composting cycle. We will put composted soil, shredded newspaper, measured food peels (fruit/veggies only) into the terrarium along with some red wiggler worms. Students will be able to watch the process of decomposition and be part of feeding the worms. Follow up information will be sent to teachers so they may teach students about the science of decomposition (or the FBIs of it: fungus, bacteria and invertebrates).

Kindergarten studies trees; they use the large pines and hardwoods on the grounds to observe and learn about bark, leaves, and how trees grow. First grade studies insects. Second grade studies plant life cycles and grows bean plants; they also learn about weather. Third grade teaches about water. Topics include the water cycle, watersheds, pervious and impervious surfaces, natural springs, groundwater and water testing. Fourth grade learns about glaciers and environmental and climatic factors that affect them.

Currently a grant has been written to purchase a 3-D printer for the purpose of students to learn simple programming to develop functional 3-D objects. Additionally the school has already purchased Lego Mind Storms and a Sphero Unit for which students will develop programming.

Element 3C: Development and application of civic knowledge and skills

Focus Area: Community Involvement

Teachers and students have contributed to the Middleton Outreach Ministry (MOM) Food Pantry. Third grade has a market each year in which students sell items they've made, many from recycled objects, and the money goes to a different charity each year: two years it went toward building a solar powered school in Uganda, one year it went for school supplies in Nepal, last year it went to MOM Food Pantry. While Uganda and Nepal are not local it shows the commitment students have to helping others in a sustainable way both in the fundraising aspect and the charity's mission.

2nd grade girl scout troops helped to build the compost bins last spring. We had put out emails to the community and fliers to grades 3-4, so a few additional students and parents came as well. They also painted the compost bins, and they raked pine needles and other tree/plant debris for the compost bin.

Mike Healy, Adaptive Restoration, volunteered to assess the condition of West Middleton's prairie. He gave advice for burning and invasive species removal that was needed. Actually, the health of the prairie was excellent and only minor removals and a burn was recommended.

A group of students are doing a trash and recycling project and have observed composting and recycling habits and processes by working with First Lego League of Dane County to look at ways to reduce waste. Students who are members of Girls On the Run of Dane County have teamed up to do a food drive and other needs for community members in poverty.

Teachers also have a partnership with the Friends of Pope Farm Park that results in all fourth grade students to participate in two field trips to the Pope Farm conservancy each year. The students learn about different rock types.

The Wisconsin glacier in our area advanced as far as Pope Farm then receded leaving all kinds of rocks for the students to experience in the rock wall, constructed of rocks removed from farm fields during the agriculture history of the park. The students also learn about the cultural history of Native Americans who utilized the Pope Farm lands prior to settlement. One activity involves making different choices for survival in a typical year. This helps reinforce Food, Shelter, Water, and Space needs of all species as well as unique human needs for hunter-gatherers. Teachers have partnered with Friends of Pheasant Branch (FOPB) to bring students to Pheasant Branch Conservancy to learn about watersheds, water testing, groundwater, water towers, etc. The fall of 2015 representatives of the FOPB met with the West Middleton PTO to suggest partnering to help in funding field trips in the future. Ongoing discussions will occur.

Staff give back to the community through participation in Dane County United Way every year.