



Schlitz Audubon Nature Preschool in Milwaukee is a 2019 Green Ribbon School!

Blending water conservation, early childhood play, and environmental education

The Nature Preschool at Schlitz Audubon Nature Center was founded in 2003. Located on the shores of Lake Michigan, this suburban school serves 144 early learners in morning and afternoon classes. The preschool is a member of the Natural Start Alliance, which is part of the North American Association of Environmental Education and a founding member of the Wisconsin Nature-Based Early Childhood Association, which is, in turn, a part of the Wisconsin Nature Action Collaborative for Children.



Housed in a LEED Gold-certified building, the preschool has three classrooms, each with enormous glass windows overlooking prairie, woodland, and natural play spaces. The teachers often keep the lights off due to the natural light that pours in through the windows, thus reducing energy costs. The school uses geothermal, photovoltaic/solar electric, and active solar thermal energy sources, which provide 50 percent of total energy use, and it sells renewable energy back to the local utility company. Schlitz also implements computer-power management settings; thermostat and hot water temperature setpoints; and uses a central control system to remotely monitor and control heating and cooling equipment. The school monitors energy usage by tracking monthly energy consumption and costs; follows a schedule for regular maintenance of HVAC equipment; and has upgraded to

energy-saving equipment.

The school's drinking water comes from a well on school property. The facilities manager is certified to conduct water tests annually. Schlitz installed water-bottle filling stations to encourage healthy hydration and reduce single-use bottles. The school's educators showed the children how rain barrels work and now allow preschoolers to collect water for play and for watering the gardens. In another play space, classes take turns measuring the daily precipitation with the rain gauge and then use walkie-talkies to report their findings to the nature center land management team.

In fall of 2018, Schlitz began installing a rain catchment system alongside one of the play areas to catch and hold 90 percent of the water from the nature center rain gutters. The water is held in a cistern. When the spout to the cistern

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Greendale's School Garden Reaps a Bounty of Conservation and Inspiration

Faithann Stoner & Kitty Goyette, Greendale Schools

"To plant a garden is to believe in tomorrow," said Audrey Hepburn. Greendale Schools is committed to helping build the tomorrows of its students and providing for the school garden is one way the district does this. The Greendale Schools' garden provides a host of benefits and lessons.

Established in the spring of 2011, the garden has grown from a few raised planting beds to over 10,000 square feet of growing space with a hoop house for year-round growing, a butterfly garden, raspberry patch, and expansive vegetable gardens that help to feed the over 2,600 students of the district through its school lunch program. In 2018, the Greendale Schools' garden had a bumper year and raised more than 1,500 pounds of produce!

Feeding the Students

Serving produce from the school garden in the school lunch program saves the district thousands of dollars each year. "We serve tomatoes, spinach, peppers, cabbage, and a lot of zucchini, cucumbers, onions and fresh herbs grown right here in the garden," said Cindy Kacmarcik, Greendale's Director of Food Service. "At times the supply outweighs the demand, so we process vegetables to freeze for future use."



Lessons Taught

In general, school gardens teach students valuable gardening and agriculture concepts and skills that integrate with academic subjects, such as science, art, health and physical education and even some you might not expect, like English, math and social studies. In Greendale Schools, the garden is used in all these subject areas and across all of its K-12 grade levels.

Art and photography classes use the garden as a backdrop for classroom activities. English and theater classes come to the garden to perform one-act plays. Physical education and health classes visit for important lessons on healthy eating and the benefits of physical activity and wellness (an hour of gardening can burn 300 calories, and provide stress relief and some fresh air!). Environmental science classes use the garden as a laboratory, learning about

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The University of Wisconsin-River Falls is pleased to announce the re-launch of an updated educational leadership master's program called MSE-Professional Development Learning Community. By building leadership skills, this Master of Science in education degree readies teachers and other educational professionals to meet the challenges of today's schools and society.

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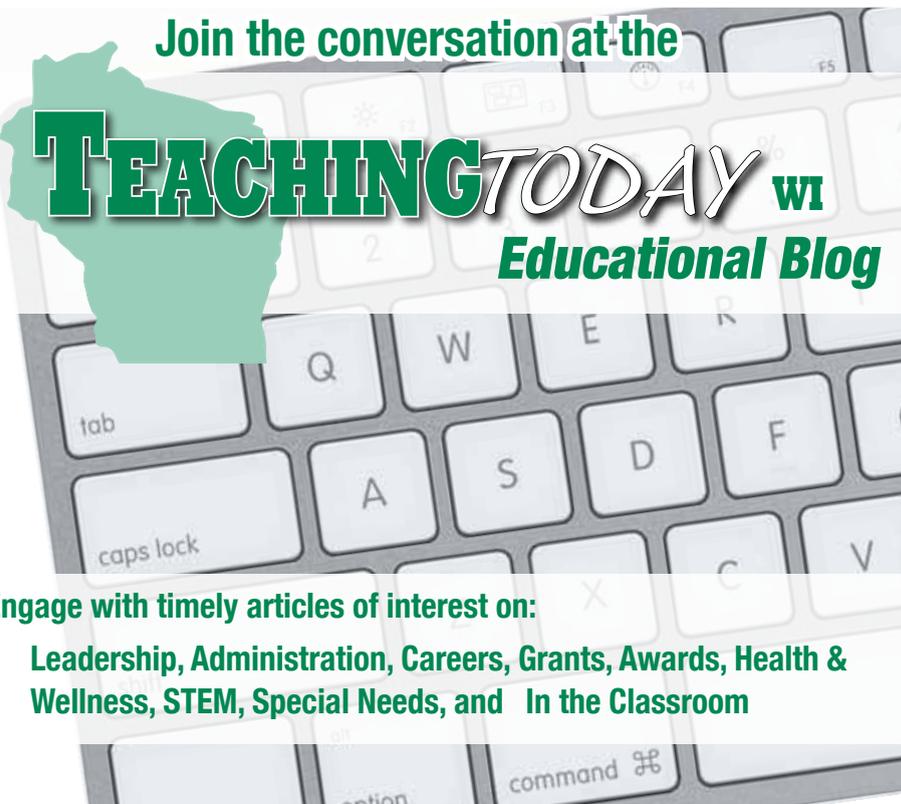



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Wisconsin Association of Agricultural Educators Awards

Outstanding Agricultural Education Program



The agricultural education program at New Richmond High School has received the Outstanding Agricultural Education Program Award from the Wisconsin Association of Agricultural Educators (WAAE). This award was presented to instructor Rachel Sauvola at the WAAE Professional Development Conference held in LaCrosse, Wis. on June 23-27, 2019. This state-level honor is generously sponsored by Don and Mary Josko.

The Outstanding Secondary/Middle School Program Award is bestowed upon an agricultural education program and its instructor who have excelled in membership, participation in WAAE and other professional associations, classroom instruction, FFA involvement, and community service.

Sauvola says, "Every student achieves success in my program — It simply looks different for each one of them as they embrace their opportunities for premier leadership, personal growth and future career success."

Sauvola teaches 16 different courses, all aligned to state and national standards with five

offerings being awarded science elective credits. Her teaching approach puts students in charge of their education through the use of inquiry instruction. In such an environment, Sauvola says she does not feed students information, but rather the students engage with scientifically-oriented questions, gather evidence, formulate explanations, connect scientific knowledge and communicate their findings with plenty of justification.

All of the New Richmond agriculture students participate in experiential learning through an individual Supervised Agricultural Experience (SAE). Sauvola credits community partnerships as one key asset for this success, touting that 38 local businesses have taken students during the past academic year.

Regarding FFA leadership development, Sauvola has students attending many of the local, state and national conferences and conventions. She is also proud of how her students hone their skills through project-based leadership. She has many student managers who take care of the school lab spaces and SOAR Center, which is a 20-acre school farm. Through their efforts, they have netted over 2,000 pounds of fresh beef for school lunch during the past academic year, among other fruitful harvests.

"As agricultural educators we are immersed in both evolving agriculture and learning technology with our students," says WAAE's 2018-19 President Becky Wirkus. "Our organization's members provide nurturing environments for students to grow as leaders as well. Being an agricultural educator like Rachel requires dedication year-round as well as enthusiasm, and a passion for both teaching and learning."

Teacher Turn the Key Award



Katelyn Dei, an agricultural educator at Slinger High School has been honored with the Teacher Turn the Key Award and Scholarship from the Wisconsin Association of Agricultural Educators (WAAE). Dei was presented this honor at the WAAE Professional Development Conference held in La Crosse, Wis. from June 23-27, 2019.

The Teacher Turn the Key Award and Scholarship is given to an agricultural educator in their first years of teaching. Its goal is to allow early-career agricultural educators to attend the annual National Association of Agricultural Educators (NAAE) Convention, giving them an

opportunity to become involved with their professional association on a national level.

Dei believes that youth, energy and open mindedness is an advantage when building an agriculture education program. She has used many resources and the knowledge acquired from attending the Wisconsin NAAE Agriscience Institute to convert lessons to inquiry designed instruction.

This Slinger High School instructor has developed many community partners to extend her classroom. Some examples are Wanaki Wildlife, Wisconsin Trappers, Double S Animal Services and Healthy Gates Equine Massage.

Participating in the 10-gallon milk challenge also led the Slinger FFA chapter to a new partnership with the community food pantry.

"One of the best ways to build a successful future is to educate students well," says Becky Wirkus, 2018-19 WAAE president. "Dedicated agricultural educators, such as Katelyn, help students build real-world skills, learn emerging technology content, develop workplace skills, and utilize intrinsic motivation and critical thinking skills to solve real-world problems."

Outstanding Agricultural Education Teacher



Becky Grabarski, agricultural educator at Adams-Friendship High School, has been awarded the Outstanding Agricultural Education Teacher Award from the Wisconsin Association of Agricultural Educators (WAAE). This prestigious award was presented at the WAAE Professional Development Conference held in La Crosse, Wis. on June 23-27, 2019. This state-level award is generously sponsored by the Dairy Farmers of Wisconsin.

The Outstanding Educator Award recognizes teachers who conduct the highest quality agricultural education programs. These individuals provide excellent classroom experiences, community and professional service and are lifelong learners. Grabarski empowers students to think for themselves, and believes once they are successful at that skill, they can

learn anything.

In Grabarski's FFA chapter, members make a difference in their community by donating fruit to the food pantry and plants to the community garden. Since 2010, the Adams-Friendship FFA chapter has been a top 10 finalist for the Food for America program and a 3-Star ranked chapter five times for the National FFA Chapter award.

Her classroom curriculum is constantly changing just as the agricultural industry does. Instruction consists of many diverse opportunities such as building fishing poles, making cheese, animal dissections, and hydroponics.

Grabarski loves watching students grow and harvest any opportunity encountered, by planting the seed of wonder, cultivating their learning with real-world interactions, and fertilizing their spirit to create productive citizens.

"As agricultural educators we are immersed in both evolving agriculture and learning technology with our students," says WAAE's 2018-19 President Becky Wirkus. "Our organization's members provide nurturing environments for students to grow as leaders as well. Being an agricultural educator like Becky requires dedication year-round as well as enthusiasm, and a passion for both teaching and learning."

WAAE Teacher Mentor Award



Troy Talford, agricultural educator at Sauk Prairie High School, has received the Teacher Mentor Award from the Wisconsin Association of Agricultural Educators (WAAE). He was honored at the organization's Professional Development Conference held in La Crosse, Wis. from June 23-27, 2019.

The Teacher Mentor Award recognizes teachers who have developed positive relationships and connections with a beginning teacher. The individuals nominated for the award have answered the call to serve as a mentor for their fellow agricultural educators. The first year teaching is always a challenge and with a little guidance from a mentor, can become more manageable.

Troy utilizes a three-tier philosophy including: learning from great mentors, disseminating their knowledge and reaching out to a larger audience. Some examples of his outstanding mentoring includes:

- Encouraging individuals to participate in WAAE and the Wisconsin Agriscience Inquiry Institute.
- Serving as a NAAE Communities of Practice facilitator.
- Sharing curriculum with CESA to benefit colleagues
- Advising four state officers, three who served as president.
- Participating in the National Agriscience Teacher Ambassador Academy, and many more.

"As agricultural educators we are immersed in both evolving agriculture and learning technology with our students," says WAAE's 2018-19 President Becky Wirkus. "Our organization's members provide nurturing environments for students to grow as leaders as well. Being an agricultural educator like Troy requires dedication year-round as well as enthusiasm, and a passion for both teaching and learning."

Fields of Opportunity

The state of Iowa is known for “fields of opportunity” and the College of Agriculture and Life Sciences at Iowa State University is no stranger to the agriculture industry and the many opportunities that come with it. Students from across the Nation have chosen Iowa State to pursue an education in an agricultural field both online and in the classroom. With the flexibility to further your education from almost anywhere and a variety of degrees offered both online and in the classroom, there are many benefits of an agricultural education at Iowa State.

Megan Zwiefel, a senior majoring in Agricultural Business at Iowa State, appreciated the opportunity to explore various career paths with internships she found through career services in the CALS. She completed internships with Farm Bureau

Financial Services and Flint Hills Resources, which assisted in narrowing down her career choice. “A benefit for my generation, if you’re going into an agriculture career and you are passionate about it, is being able to educate the younger generations about the importance of agriculture. Having that opportunity is rewarding,” Zwiefel said. “I think it’s hard for people to see the importance of agriculture, especially when you don’t live in a rural area. With a growing population, we are having to learn how to grow more and more food, and I think being a part of that is incredible.”

The agricultural education master’s program at Iowa State provides professionals an opportunity to advance themselves within their field by being able to explore courses focused on introduction to research,



instructional methods, program planning, learning theory, and foundations of agriculture. “Students have the opportunity to select additional classes which they would like to tailor to their degree program,” Scott Smalley, Associate Professor in Agricultural Education and Studies at Iowa State said. “The courses within the program allows individuals from a wide variety of fields to be able to successful in the course. Individuals completing the program include agricultural educators, extension professionals, business and industry leaders and non-profit directors.”

Riley Arthur, an Agricultural Business/Economics double major at Iowa State, has been impressed by how much the CALS faculty and staff care about and students and their success. “One of the things that drew me to a career in agriculture was the people,” Arthur said. “There is a culture of respect that is present throughout the entire indus-

try whether it’s in CALS, John Deere or any other agricultural organization.” Arthur said one thing he likes about having an Agricultural Business/Economics double major is, it doesn’t limit him to only agricultural related jobs because he has the education needed to succeed in any field. Arthur is the president of the Agricultural Business Club at Iowa State, which he says has opened up many potential career opportunities. Arthur participated in three internships throughout his time at Iowa State which lead to a job offer upon graduation. “The club has numerous sponsoring businesses and a positive reputation which gives members an advantage when it comes to internships and job possibilities,” Arthur said. “It also gives you the opportunity to meet other students with your major and build those connections.” The opportunities for an agricultural education are endless, start your adventure today!



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Go Green Minigrants

Peace, Love & Planet awards Go Green Minigrants as seed money for environmental initiatives that are school based and led by students. Projects should encompass the core values of reduce, reuse, recycle, and respect for nature; have measureable outcomes; and be approved by the school principal. Awards range from \$50 to \$400, with total funding of \$2,500.

Deadline: Applications due Nov. 22, 2019.

Website: www.peaceloveandplanet.org/calendar

H2O for Life Project Minigrants

The mission of H2O for Life is to improve local and global communities by engaging students as change-makers for a better world. Minigrants are intended to kick-start service-

learning projects focused on the global water crisis and to benefit partner schools. Grants may be used for service-learning project expenses.

Awards range from \$250 to \$500.

Deadline: Applications are accepted on a rolling basis through December 31, 2019.

Website: www.h2oforlifeschools.org/page/kickstart-your-project-with-a-grant

ecoSolution Grants

The Captain Planet Foundation (CPF) awards ecoSolution Grants to support solution-oriented, youth-led projects that result in real environmental outcomes. Projects must be solution-oriented, project-based, performed by youth, and have real environmental outcomes.

Awards range from \$500 to \$2,500.

Deadline: Applications are accepted January 16 through July 15 and July 16 through January 15, annually.

Website: captainplanetfoundation.org/grants/ecosolution

Energize the Environment Grants

Quadratex is sponsoring Energize the Environment Grants to invite individuals and organizations across the United States to explain the environmental efforts they are making and how a grant can enable or extend that work.

Two grants of \$3,500 each are awarded.

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New Richmond's Agriscience Program SOARS to Great Heights



*Haley Beukema and Rose Gillis
SOAR Center Student Manager and
SOAR Center Marketing Manager
New Richmond School District*

When most teachers think about their lesson plans for the week, rarely do they consider when they will fit in their Fleet Farm feed run, but for Rachel Sauvola it's just part of the routine. She has over one hundred hungry animals that count on her and her students every day. Sauvola is the Agriscience Instructor and FFA Advisor at New Richmond High School where she also holds the reins to the New Richmond School District SOAR Educational Center. Founded by Sauvola and her students in 2016, SOAR stands for Student Opportunities with Agricultural Resources and is a school farm located just outside of town. The farm is home to fifteen head of cattle, over forty chickens, eight ducks, and five pet goats.

Animals are cared for by a crew of students enrolled in her Advanced Large Animal Class who do twice daily chores. The purpose of the farm is to incorporate student raised products into school lunch through hands-on learning of agricultural principles. In their first year of pro-



duction, the program raised and butchered four steers resulting in just under 1,500 lbs of beef sold to the School Nutrition Department. Unfortunately, this fell short of the 2,000 lb demand. This past year, they adjusted for the shortage and another seven steers were butchered to obtain 2,314 pounds of roasts and burger that went into school lunch. Six hundred twenty pounds of prime cuts, were kept out to sell to the community to raise the total even higher to 2,934 pounds produced last school year. The School Nutrition Department purchases everything from the Agriscience Department to show the students how successful businesses operate. Students also sell both chicken and duck eggs to community members, hatch and sell home bred chicks and ducks, and grow vegetables in a garden and in their school greenhouse for school lunch.

Back in the classroom, at New Richmond High School, you will also find rainbow trout, largemouth bass, black crappie, and walleye in three 800 gallon tanks, 17 companion animals including 2 baby guinea pigs, a pen with two lambs, a guppy breeding tank, 4 Betta fish, a 20 gallon goldfish tank, a 60 gallon aquarium full of a vast variety of fish, an aquaponic system growing lettuce, a large greenhouse growing veggies and microgreens and plenty of student projects. Being able to show students how to raise and grow food is at the forefront of the entire program. Offering 16 different curricula options, Sauvola is looked upon as a leader in agricultural education. She's a National Agriscience Teacher Ambassador who facilitates programs for educators across the country. She's been named the Outstanding Ag Educator for

Wisconsin, as well as a National Agriscience Teacher of the Year, while the program is the current Outstanding Agricultural Education Secondary Program for the state.

So how did this program begin you may ask? A referendum was passed that allowed Sauvola to design her new facilities at NRHS, which opened in 2010. After moving in, enrollment grew from 20 to 120 students in Large Animal Science by 2014. Sauvola knew she had

to do something to create more hands-on learning opportunities. Having a large animal pen in the classroom, she had been successfully raising steers with her students from two days old to 900 pounds by graduation for four years. Since students learn about the management practices of animals used for food, she quickly realized that she could only castrate the bull calf once and that those students in 2nd and 3rd hour were missing out on a learning opportunity. Then the steer had to return to the farm and students never got to see the end product. Sauvola disliked that students were missing out on a learning opportunity.

Then began the hot pursuit of a barn on school grounds that could accommodate three sections of students' animals so each class could raise some large animals for the hands on experiences. At the last second, the City of New Richmond and the New Richmond Regional Airport swept in with 20 acres and the idea of a partnership with Sauvola.

After a year of intense planning with two fabulous agricultural students in secret, they put the first four calves on the farm in October 2016. Then chickens were added, followed by ducks, and then the adoption of Dot, the first petting zoo goat. The others followed soon after. All of the animals are donated by fantastic community partners. Sometimes it may be one chicken who survived a predator's attack and another time it's a flock of birds from a person who purchased too many. Sometimes it's a special project calf - whereby the mother passed away or chose to abandon it. Whatever the reason for the donations, the SOAR Center students love them and take them in.

The level of troubleshooting and problem solving on a daily basis is one of the best things about this project. It combines all that is taught in the curriculum up to the point that students can take the class that runs the farm. The 21st century skills that are encompassing the SOAR Center are amazing as students learn how to interact with community members, local businesses and potential donors. They know the story and they tell the story. They get to present in front of groups small and large, honing their public speaking skills. Students share their passion and work hard to ensure that everyone knows what they are doing at the SOAR Center.

Community collaboration is key. Other teachers and their families volunteer to do chores on weekends and school vacations. The SOAR Center is used for educating people of all ages and backgrounds, so there have been many elementary students that attend programs hosted by high school students; these programs are structured around teaching a younger demographic of community members where their food comes from. There have been teacher groups and people from 10 different states that have come out to learn more. Local citizens get involved by telling the story and providing time, talent and treasure. Supplies and feed are often donated as well. In total, there are animals from 29 local families and partnerships with over 45 local businesses pooling together at the SOAR Center. Sauvola

has collected over \$150,000 worth of grants in the last two and a half years. One of the community partnerships netted the SOAR Center a new tractor. Each year the local Dodge RAM dealership partners with the program for a brand new pick up to transport students and supplies.

With bigger and better ideas for the school farm, the 2019-2020 leadership team was pleased to learn that the plans to build new barns on the property have been approved. The first two buildings will be the beef barn and the arena/Outdoor Learning Center. Haley Beukema and Rose Gillis, both juniors at New Richmond High School, have been busy writing grants and composing plans for this new facility and equipment that can make the farm run as smoothly as possible. There have been many improvements made already this year, and the Advanced



Animal Science class is the largest it has ever been: with 5 students in the morning and 6 students in the afternoon taking care of the animals. With many different aspects of farm management required from the students, there are many opportunities for leadership and personal growth through the SOAR Center. These opportunities will forever serve an important role in the personal development of the students in the New Richmond School District.

"As students in the program, we are more ready for life beyond high school because of what belonging to this program has taught us" exclaims a past graduate member of the SOAR Center. We always welcome tourists and love sharing our story with communities far and wide. We are also always searching for time, talent, or treasure that can help us further grow our programs! You can reach Mrs. Sauvola at rsauvola@newrichmond.k12.wi.us — or at 715-243-1761. Come and check it out!

newrichmond.k12.wi.us
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Cudahy Middle School Project is Picking up STEAM



Kimberly Berner
Cudahy Middle School Principal
School District of Cudahy

Last year, a single lesson had grown into an amazing environmental project at the Cudahy Middle School. Using a design approach, teachers are helping students connect light, nutrients, food, fish, and water to science, technical education, art, teamwork and problem-solving skills.

Hydroponics, Aquaculture and Aquaponics

The three-tiered system uses hydroponics, aquaculture and aquaponics to teach how the cycle of water, nutrition, and light help plants thrive and grow food. Hydroponics uses water and chemical nutrients to cultivate plants. Aquaculture is the farming of fish or other aquatic organisms such as algae. Aquaponics brings the two together, using fish

waste to fertilize plants for food.

We are continuing to utilize our hydroponics system here at Cudahy Middle School. We are in year three of this project and going strong. Jared Anderson, took over the STEAM program last year and has used his engineering background to introduce students to the engineering design process.

Towards the end of last year we added a second system. This system has different medium, fish and lighting, as well as a top row with traditional garden soil. The different systems and medium allow students to compare growth between the systems, including how plants grow in traditional soil versus hydroponics medium. The tilapia have reproduced and we now have some baby fish growing in the first tank. Our second system uses koi fish instead of tilapia. Students have been able to see how lettuce grows in the three different medium, using the engineering and scientific process as they experiment. The second system was also created by our Technical Life Skills teacher, Jim Sommerville, and his students.

Students are learning about fish anatomy, plant anatomy, the nitrogen cycle, water chemistry, and how to care for the fish and plants in the system. Students took their knowledge of the in-class system and designed their own. They needed to research about all parts of the

system, build it and then present the system to their classmates. One group brought their system to the office to present it to Mrs. Berner the principal. "The project was well thought out and students could clearly explain all parts of the system, answering my questions as they presented"

Mr. Anderson took his 6th grade students to Grant Park in South Milwaukee last month through a grant from Wehr Nature Center (Mr. Anderson thought the funding came from Jones Island... I am waiting for more information on this). On this field trip, students learned more about water quality and specifically how it relates to the Great Lakes. They helped clean the beach of trash and debris, identified important geographic locations around Lake Michigan, and tested water currents closest to shore. This field trip was a great way for them to understand the importance of clean water and the impact it can have on systems, such as the hydroponics system they use in their class.

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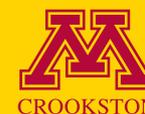
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Plant Science Learning Center Growing Agricultural Skills at Elkhorn Area High School



Elkhorn Area School District

As part of a referendum approved by voters in November 2016, the Elkhorn Area High School greenhouse (The Plant Science Learning Center) was completed last January and learning has been in full swing since then.

The facility is comprised of two greenhouses and a head house. The head house is utilized as a classroom and headquarters for the two greenhouses, which are both 24 feet by 60 feet. Each greenhouse has distinct functions. While one of the greenhouses has a more traditional setup, the second has a more progressive focus.

The traditional greenhouse space features 5 large tables where students will be able to grow hundreds of plants at any time. Serving many roles within the greenhouse, the headhouse

is used as the work space. It is the "Headquarters" of plant science facility.

The Controlled Environment Greenhouse (CEA) is used to introduce students to aquaculture, hydroponic and aquaponics techniques. Ebb and Flow systems are set on a timer that floods and drains the system with nutrient rich water twice a day. This system is used as the initial germination site of our seedlings. Vertical tower systems are used to maximize space and growing area. Each tower can grow 20-25 different plants at once. The Dutch bucket system is designed for crops such as tomatoes, cucumbers and peppers. Vertical aeroponics tower is another method to grow more in less space. With a pipe running down the inside, plant roots are sprayed inside, with the rest of the plant shoots out the tubes lining the system. The aquaculture tank is

used to raise tilapia. This system allows students to learn animal science and water quality principles in class. In this aquaponics system, fish waste water is used to grow vegetables. Water is pumped from the fish tank, filtered for large particles and then sent to the plant growing bed. Here, the plants take in nutrients and in turn, cleaning the water. This water is sent back to the fish tank to start the process again. We had our first successful lettuce harvest this past spring.

Community support from Elkhorn FFA Alumni members and FFA members has been critical in some of our re-design work in the greenhouse. Thanks to some innovation and many hours of volunteer assistance, we more than doubled our plant growing space by building sliding shelves that can "hide" our shade tolerant plants under the main tables when people are in the greenhouse. We have also added more growing space for hanging baskets so we can provide plants directly for a local retailer.

Students have the opportunity to learn about and experience many areas of agriculture production. The new greenhouses allow students to have a comprehensive, hands-on approach to their Plant Science classes, which include Horticulture and Greenhouse Crops. Greenhouse Crops allows students to experience the entire process from seed to selling, teaching students production, greenhouse operations and marketing.

We have been able to implement a program we call Elkhorn FFA's AgVentures. During this program Elkhorn FFA members/agriculture students are sharing agricultural knowledge and experiences with others. Last month we brought approximately 250 3rd grade students to the agriculture department and our students provided 9 education stations for the 3rd grade students related to plants, animals, food science, and technology.

The Plant Science classes are a part of the Agricultural Education Program that was one of only six agricultural education programs nationwide that received the National Association of Agricultural Educators (NAAE) Outstanding Middle/Secondary Agricultural Education Program Award in November 2016. Dave Kruse is the teacher at the high school that heads up the program. Each year in May the students in the program, under Mr. Kruse's guidance, plan and host a plant sale for the community. Kruse is committed to agricultural education. He looks forward to expanding the program through the Plant Science Learning Center, to benefit not only the students, but also the community.

www.elkhornschoools.org

(262) 723-3160



GREEN GRANTS

Continued from Page 5

Deadline: Application essays are due June 30 and October 30, annually.

Website: www.quadratec.com/page/quadratec-cares-grant-program

Conservation Education Grants

The SeaWorld and Busch Gardens Conservation Fund (SWBGCF) makes grants in four priority areas: conservation education, species research, habitat protection, and animal rescue and rehabilitation.

Awards range from \$10,000 to \$25,000.

Deadline: Applications are due April 30 and November 30, annually.

Website: swbg-conservationfund.org/grant-seekers

School Garden Grants

Safer Brand offers School Garden Grants to schools that want to create and start a school garden. Interested schools should explain their reasoning for a school garden and how they would use the grant. Grants of \$500 are awarded.

Deadline: Applications are accepted September 1 through December 1, annually.

Website: www.saferbrand.com/articles/how-to-start-a-school-garden

Emeril's Culinary Garden and Teaching Kitchen Program

The Emeril Lagasse Foundation works to inspire, mentor, and enable student success by integrating gardening and cooking concepts into school curriculums. Emeril's Culinary Garden and Teaching Kitchen Program partners with qualified elementary and middle schools to inspire appreciation for food sources and understanding of nutrition and healthy eating, promote life skills, and teach culinary skills.

Deadline: Letters of Interest are accepted year-round.

Website: emeril.org/emerils-culinary-gardens/schools



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www.canr.msu.edu

Schlitz Audubon Nature Preschool in Milwaukee is a 2019 Green Ribbon School!

Continued from Page 1

is opened, the water runs along a homemade funnel system, through the play space, and out into an educational rain garden. This system allows water conservation, early childhood play, and environmental education to be seamlessly blended.

The school was built with a combination of sustainable woods, including black locust and Norway spruce harvested from the property. The teachers made a commitment to eliminate plastic as much as possible in classroom furnishings and tools, and instead use natural materials, including several items taken from fallen trees on the property. Every few years, a preschool art festival called Ash-to-Art is held, during which children and their families create art on large cross sections of ash wood taken from the ash trees coming down on the property. This experience is combined with lessons and activities about the emerald ash borer.

The preschool uses as many recycled, upcycled, natural, and environmentally sustainable products in the classroom as possible, from educational materials to cleaning supplies. The preschool teachers make a point of reducing, reusing, and recycling in classrooms and teaching this behavior to students. The preschool uses an educational three-bin compost system, and it aims to become a zero-waste school either by repurposing materials, such as play dough and paper, into new art projects; or by recycling; or by composting everything eaten. Schlitz has a

dishwasher and sanitizer that allows the school to avoid paper plates and utensils, and the school serves food family-style.

Students learn about the importance of caring for themselves and others. Students and staff hike daily, transitioning from short distances at the start of the year to a mile by the end. Preschoolers play outside in all weather, and they spend up to two hours and 45 minutes outside daily unless the temperature is below zero degrees Fahrenheit or there is lightning. Families and children learn how to dress appropriately for all temperatures and kinds of weather. Students and staff wash hands several times a day. A yoga class is offered on Mondays, and staff members are encouraged to spend their breaks outside on the 185-acre campus. Teachers get emotional support through staff outings and social gatherings, and they are encouraged to stay home when sick. The staff is united by a common passion and mission, which makes the overall working environment more appealing.

The center supports organic, fair-trade, and local suppliers, and buys local fruits and vegetables as often as possible. While the half-day preschool program doesn't offer meals, the staff cooks healthy foods with the children as part of programming whenever possible, such as during their summer camp called "Dirt Made My Snack." At the camp, preschool children learn the connection between healthy soil and healthy food and make homemade organic snacks daily.

The preschool incorporates environmental concepts into all programs, which serve children between 6 months and 6 years. The Audubon Babies program is primarily sensory-based, giving small children opportunities to touch, smell, listen, and experience nature with their whole bodies. Once the children enter preschool, they begin each day outside in nature-based play areas. These include gardens, trees, logs, a water area, a digging area, a mud kitchen, trees for climbing, and loose items from nature, such as rocks, sticks, and branches. Students are provided tools that help them learn to interact with nature — and each other — in positive ways, using items including shovels, spades, watering cans, dishes, twine, scoops, brooms, trucks, and wheelbarrows. Classes have daily access to the Lake Michigan shoreline, prairies, woodland, oak savanna, and ponds. Students spend between 50 and 100 percent of their time outdoors every day, year-round.

During their time at Nature Preschool, children learn about water, animal habitats, recycling, and seasonal changes; they participate in maple sugaring, gardening, and composting; they care for animals in the classroom, on the trails, and through the onsite raptor center. They develop a sense of community and connection to the land that will outlast their time in preschool. They plant and harvest a large vegetable garden; look for worms and insects under logs; experiment with mud and water; climb on structures

made from fallen trees; run, play, ask questions, explore, and engage. They participate in citizen science programs by monitoring monarch butterfly populations, keeping track of birds, and discussing invasive species. They may spend time on the beach at Lake Michigan, visit one of the many ponds on the property, climb the 60-foot tower, or rake leaves. Their hikes change daily based on what is happening seasonally.

Preschool teachers practice what they teach. Several have taken master naturalist training and participate on the school's sustainability committee. Staff have written extensively and presented at conferences about the social, emotional, cognitive, motor, and overall health benefits of playing outside, which fosters a deep sense of environmental awareness and connection to nature. The goal of the Nature Preschool at Schlitz Audubon is to help children develop a connection to nature and the environment that will remain with them long after they leave the program and will result in their becoming stewards of the earth.

Source — U.S. Department of Education Green Ribbon Schools

[www.schlitzaudubon.org/
learn/nature-preschool](http://www.schlitzaudubon.org/learn/nature-preschool)
(414) 352-2880



Greendale's School Garden Reaps a Bounty of Conservation and Inspiration!

Continued from Page 1

how quickly seeds sprout and plants grow under certain conditions and investigating the different insect species that live in the soil.

Participation also helps students learn about personal wellness and social responsibility for the environment. The District, a 2014 US Department of Education Green Ribbon School District Sustainability Award Winner, uses the garden to teach students to live and work in a green and sustainable manner.

"There are so many benefits to having a school garden," said Heidi Hennessy, Greendale Schools Garden Coordinator. "If I had to narrow it down, the greatest benefit for the students of Greendale would be that the garden provides a place to learn about their environment while acquiring life skills."

Feeding the Garden

In a manner of speaking, the students also feed the garden. Since 2012, the school garden has been collecting food scraps from the school lunch program as compost. As of 2019, all three elementary schools and the high school contribute to the composting. From January to October of 2019, a little over 2.5 tons of compost was diverted from the landfill, with a total of 6.35 tons composted—that's 12,703 pounds—since the effort began in 2012.

Feeding an Interest

Students at Greendale High School can join the Garden & Food Club as an extra-curricular activity. The Club has been in existence for six years, almost as long as the garden itself. The members are passionate about environmentalism and sustainability. They have built birdhouses, planted seeds, and worked with athletic teams during bigger projects like moving mulch or gravel and painting signage.

The Club also plants vegetables for the food service, and waters the plants, pulls weeds and harvests the produce. Their favorite activity is Free Sample Fridays. On these days, produce is harvested, prepared and then shared during student lunches to promote healthy eating and education as to where our food comes from. The group is also involved in plant-related fundraisers to further promote gardening, like Soup-Supply Baskets, Fall Bulbs (that bloom in spring!) and a Holiday Plant Sale.

Market Opportunities

During the summer months, Garden & Food Club members work to harvest/display/sell produce at the Open Markets in downtown Greendale. They also have sold seed artwork created by the Club as well as dried herbs and

perennial plants. The profits are used for the following season's seeds and plants. An added benefit is that the students get the experience of being part of a great working business model.

At the market in June, the group sold lettuce bowls made by planting lettuce in reclaimed colanders, which were very popular. Environmental Science students planted them before school was out for the summer. The lettuce bowls also included herbs from the school garden.

"This year for the first time, we will have a booth at Greendale's Winterfest," says Hennessy. "We plan to sell homemade grape jelly made with grapes grown in the garden, seeds that have been collected along with succulent planters that the Garden & Food Club members will assemble."

Spreading the Love

Last May, Greendale High School's graduating Seniors were offered a coupon after graduation practice to redeem in the school garden for a free house plant. About one-third of the class participated!

Water Conservation

This past summer, as part of the Greendale Green Summer program, the School Garden had

a new rain barrel installed by interns from the Milwaukee Metropolitan Sewerage District. A Greendale alumnae who became an artist with a focus on Environmental art work is currently working with High School Art Teacher Pam Merkel and a group of her students to create signage for some of the garden's native plants along with educational information about water conservation.

Partnership Opportunities

Greendale's garden also helps the district to foster important community partnerships with local businesses and organizations. The UW-Extension Master Gardeners provide technical expertise, a local store sent employee volunteers to assist with fall garden clean up, and an area restaurant in Greendale donates its food scraps for important composting material. Boy Scouts have built benches and a garden shed and the Girl Scouts visit to work on gardening badges. All of these are important activities that make the garden successful.

www.greendale.k12.wi.us
(414) 423-2700



Healthcare Occupations

Employment of healthcare occupations is projected to grow 14 percent from 2018 to 2028, much faster than the average for all occupations, adding about 1.9 million new jobs. Healthcare occupations are projected to add more jobs than any of the other occupational groups. This projected growth is mainly due to an aging population, leading to greater demand for healthcare services.

The median annual wage for healthcare practitioners and technical occupations (such as registered nurses, physicians and surgeons, and dental hygienists) was \$66,440 in May 2018, which was higher than the median annual wage for all occupations in the economy of \$38,640.

Clinical laboratory technologists and technicians

Clinical laboratory technologists and technicians collect samples and perform tests to analyze body fluids, tissue, and other substances.

Education — Clinical laboratory technologists typically need a bachelor's degree. Technicians usually need an associate's degree or a postsecondary certificate. Some states require technologists and technicians to be licensed.

Median Pay — 2018—\$52,330

Overall employment of clinical laboratory technologists and technicians is projected to grow 11 percent from 2018 to 2028.

Diagnostic medical sonographers and cardiovascular technologists and technicians, including vascular technologists

Diagnostic medical sonographers and cardiovascular technologists and technicians, including vascular technologists operate special imaging equipment to create images or to conduct tests.

Education — Diagnostic medical sonographers and cardiovascular technologists and technicians, including vascular technologists, need formal education, such as an associate's degree or a postsecondary certificate. Many employers also require professional certification.

Median Pay 2018 — \$72,510

Overall employment of diagnostic medical sonographers and cardiovascular technologists and technicians is projected to grow 14 percent from 2018 to 2028.

Emergency medical technicians (EMTs) and paramedics

Emergency medical technicians (EMTs) and paramedics respond to emergency calls,

performing medical services and transporting patients to medical facilities.

Education — Emergency medical technicians (EMTs) and paramedics typically complete a postsecondary educational program. All states require EMTs and paramedics to be licensed; requirements vary by state.

Median Pay 2018 — \$34,320

Employment of emergency medical technicians (EMTs) and paramedics is projected to grow 7 percent from 2018 to 2028.

Genetic counselors

Genetic counselors assess individual or family risk for a variety of inherited conditions, such as genetic disorders and birth defects.

Education — Genetic counselors typically need a master's degree in genetic counseling or genetics, and board certification.

Median Pay 2018 — \$80,370

Employment of genetic counselors is projected to grow 27 percent from 2018 to 2028.

Licensed practical nurses (LPNs) and licensed vocational nurses (LVNs)

Licensed practical nurses (LPNs) and licensed vocational nurses (LVNs) provide basic nursing care.

Education — Licensed practical and licensed

vocational nurses must complete a state-approved educational program, which typically takes about 1 year to complete. They must be licensed.

Median Pay 2018 — \$46,240

Employment of licensed practical and licensed vocational nurses is projected to grow 11 percent from 2018 to 2028.

Nurse anesthetists, nurse midwives, and nurse practitioners

Nurse anesthetists, nurse midwives, and nurse practitioners coordinate patient care and may provide primary and specialty healthcare.

Education — Nurse anesthetists, nurse midwives, and nurse practitioners must earn at least a master's degree in one of the APRN roles. They must also be licensed in their state and pass a national certification exam.

Median Pay 2018 — \$113,930

Overall employment of nurse anesthetists, nurse midwives, and nurse practitioners is projected to grow 26 percent from 2018 to 2028.

Occupational therapists

Occupational therapists treat patients who have injuries, illnesses, or disabilities through

Continued on Page 11

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Healthcare Occupations

Continued from Page 10

the therapeutic use of everyday activities.

Education — Occupational therapists typically have a master's degree in occupational therapy. All states require occupational therapists to be licensed.

Median Pay 2018 — \$84,270

Employment of occupational therapists is projected to grow 18 percent from 2018 to 2028.

Pharmacists

Pharmacists dispense prescription medications to patients and offer expertise in the safe use of prescriptions.

Education — Pharmacists must have a Doctor of Pharmacy (Pharm.D.), a 4-year professional degree. They must also be licensed, which requires passing two exams.

Median Pay 2018 — \$126,120

Employment of pharmacists is projected to show little or no change from 2018 to 2028. Employment in retail pharmacies will be affected by increasing sales via mail order and online pharmacies.

Phlebotomists

Phlebotomists draw blood for tests, transfusions, research, or blood donations.

Education — Phlebotomists typically enter the occupation with a postsecondary non-

degree award from a phlebotomy program. Almost all employers look for phlebotomists who have earned professional certification.

Median Pay 2018 — \$34,480

Employment of phlebotomists is projected to grow 23 percent from 2018 to 2028.

Physical therapists

Physical therapists help injured or ill people improve their movement and manage their pain.

Education — Physical therapists entering the profession need a Doctor of Physical Therapy (DPT) degree. All states require physical therapists to be licensed.

Median Pay 2018 — \$87,930

Employment of physical therapists is projected to grow 22 percent from 2018 to 2028.

Physician assistants

Physician assistants practice medicine on teams with physicians, surgeons, and other healthcare workers.

Education — Physician assistants typically need a master's degree from an accredited educational program. All states require physician assistants to be licensed.

Median Pay 2018 — \$108,610

Employment of physician assistants is

projected to grow 31 percent from 2018 to 2028.

Radiation therapists

Radiation therapists treat cancer and other diseases in patients by administering radiation treatments.

Education — Most radiation therapists complete programs that lead to an associate's degree or a bachelor's degree in radiation therapy. Radiation therapists must be licensed or certified in most states. Requirements vary by state, but often include passing a national certification exam.

Median Pay 2018 — \$82,330

Employment of radiation therapists is projected to grow 9 percent from 2018 to 2028.

Radiologic technologists

Radiologic technologists perform diagnostic imaging examinations on patients. MRI technologists operate magnetic resonance imaging (MRI) scanners to create diagnostic images.

Education — Radiologic technologists and MRI technologists typically need an associate's degree. Many MRI technologists start out as radiologic technologists and specialize later in their career. Radiologic technologists must be licensed or certi-

fied in most states. Few states license MRI technologists. Employers typically require or prefer prospective technologists to be certified even if the state does not require it.

Median Pay 2018 — Magnetic resonance imaging technologists \$71,670; Radiologic technologists \$59,520

Overall employment of radiologic and MRI technologists is projected to grow 9 percent from 2018 to 2028.

Registered nurses

Registered nurses (RNs) provide and coordinate patient care, educate patients and the public about various health conditions.

Education — Registered nurses usually take one of three education paths: a Bachelor of Science degree in nursing (BSN), an associate's degree in nursing (ADN), or a diploma from an approved nursing program. Registered nurses must be licensed.

Median Pay 2018 — \$71,730

Employment of registered nurses is projected to grow 12 percent from 2018 to 2028.

Bureau of Labor Statistics, U.S. Department of Labor Occupational Outlook Handbook Healthcare <https://www.bls.gov/ooh/healthcare/home.htm>

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Did you know?

According to the Bureau of Labor Statistics as of May 2018:

Radiologic Technologist: Median annual wage – **\$61,240**

Diagnostic Medical Sonographer: Median annual wage – **\$67,080**

Registered Nurse: Median annual wage – **\$71,730**

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook at <https://www.bls.gov/ooh/healthcare/radiologic-technologists.htm> (visited August 27, 2019).

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A Decade of Jo-2-Go at Mukwongo High School



Randi Jensen and Heather Kane-Terhorst,
MHS Teachers
Mukwonago Area School District

From humble beginnings to a newly created cafe space, Jo-2-Go, an MHS student-run coffee shop, celebrated 10 years of success this year.

In 2009, Jo-2-Go was born in Heather Kane-Terhorst's classroom. Students and staff prepped for Jo-2-Go there, measuring out single cups of hot chocolate and French vanilla cappuccino mix before hauling the drinks on an old overhead cart to the athletic concession

stand.

In the beginning, hot drinks were mixed using a hand blender, with hot water from one of three donated vintage coffee makers. Over time, the menu grew to include more flavors of hot drinks, classroom-baked muffins, and Jo Mix, a combination of seasoned pretzels and cereal.

In 2011, Jo-2-Go moved to a bigger classroom with a kitchen. This allowed students in special education Life Skills class to bake more items. As the space expanded, the menu did too. Baking and packaging various goods and sweet

treats became regular student tasks to get ready for Jo-2-Go each week. A variety of cold drinks, including iced coffee, were added to the menu to meet the desires of more customers.

After receiving a grant from the Education Foundation, new, larger coffee pots were purchased, and a contract with a vendor upgraded the cappuccino machines to serve more customers. On Thursday mornings, hundreds of students and staff would buy from Jo-2-Go.

Then in September 2018, with the new renovations at MHS, Jo-2-Go received a huge upgrade with the new cafe space.

"The new space has given us a better teaching environment for helping our students work on customer service skills in a real-world work environment," Kane-Terhorst said. "These are the skills needed for success in the world of work. . . . Providing students these supports in a safe and supportive environment will help our students be successful in life. That is the main reason Jo-2-Go was started."

This year, another long-term goal of Jo-2-Go was achieved when it purchased an eight passenger van equipped with a wheelchair lift, which opened doors for students with



mobility needs. Now students have increased access to community-based experiences! The van has been used to work on independent living and vocational skills in and around Mukwonago.

Jo-2-Go continues to work each week with the hope of purchasing another van to provide more opportunities for special education students across the district, and more opportunities for experiences in our great community.

www.masd.k12.wi.us
(262) 363-6300



FINANCIAL LITERACY ONLINE RESOURCES

Practical Money Skills for Life

A free Web site designed to help educators, parents and students practice better money management for life.

Website: www.practicalmoneyskills.com/index.php

National Endowment for Financial Education

NEFE's High School Financial Planning Program® (HSFPP) is a free turnkey financial literacy program specifically focused on basic personal finance skills that are relevant to the lives of teens in Grades 8–12.

Website: www.hsfpp.org/

Money Math: Lessons for Life

A four-lesson curriculum supplement for middle school math classes, teaching grade 7-9 math concepts using real-life examples from personal finance.

Website: www.treasurydirect.gov/indiv/tools/tools_moneymath.htm

Money Talks

Money Talks for Teens is a bilingual (English/Spanish) money management curriculum aimed at teens 14-18 years old and the adults who work with them.

Website: moneytalks4teens.ucanr.edu/

Gen i Revolution

A free online personal finance game for middle and high school teachers and their students. "Gen i Revolution" is based on the 'Learning, Earning and Investing' Program, as well as content from 'Your Credit Counts' and 'Financial Fitness for Life.'

Website: www.genirevolution.org

Building Wealth

A personal finance education resource which presents an overview of personal wealth-building strategies that includes setting financial goals, budgeting, saving and investing, managing debt, and understanding credit reports and credit scores.

Website: www.dallasfed.org/microsites/cd/wealth/index.html





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- \$75.00 cash prizes will be awarded to each of the six Honorable Mentions.

Middle School Contest:

- \$100.00 cash prizes will be awarded to each of the six winning entries.
- \$25.00 cash prizes will be awarded to each of the six Honorable Mentions.



**Deadline for submissions is December 2nd
 at 5:00 pm! Submit your essay soon!**

**The Winners of the 2018
 Dream Career Essay Contest**

We would like to say a big hearty thank you to all of the high school students and middle school students that shared their Dream Careers with us last year! Choosing the Winning and Honorable Mention entries was a very difficult task. Some entries brought a laugh, a smile and even a tear.

2018 High School Contest Winners:

The six winners of \$200.00 each from Teaching Today WI were:

- William M.** — Doctor, Arrowhead Union High School
Nora V. — Navy Nurse, Arrowhead Union High School
John P. — A Robotic Reality, Greendale High School

Amalia M. — Psychiatrist, Onalaska High School

Jordan G. — Everything theirs isn't, Arrowhead Union High School

Grace J. — Child Psychologist, Luck High School

The six Honorable Mentions and winners of \$75.00 each from Teaching Today WI were:

Rilee W. — Penologist, Prairie du Chien High School

Kaden C. — Physical Therapist, Prairie du Chien High School

Julianna T. — Dairy Geneticist, Luck High School

Annika C. — Graphic Designer, Fort Atkinson High School

Megan R. — Journalist, Arrowhead Union High School

Sufyan H. — Corporate Lawyer, Greendale High School

Kaden S. — Entrepreneur, Bay View Middle School HSSD

Ella G. — Nursing Home Activity Director, River Ridge School District

Brylee K. — Vet assistant and help abandoned horses, River Ridge School District

Krysta T. — My Vet Tech Dream, Gordon Olson Middle School, Mauston

Mya S. — Zoologist, James Fenimore Cooper School MPS

The six Honorable Mentions and winners of \$25.00 each from Teaching Today WI were:

Noah P. — Computer Programmer, River Ridge School District

Tatyana L. — Special Education Teacher, Bay View Middle School HSSD

Maddie H. — Author, Bay View Middle School HSSD

Brandon M. — Aerospace Engineer, Bay View Middle School HSSD

Nyomi G. — Neurosurgeon, James Fenimore Cooper School MPS

Braylyn Q. — Meant To Be a Farrier, River Ridge School District

Middle School Contest Winners:

The six winners of \$100.00 each from Teaching Today WI were:

Brandon Alexander G. — Chief Financial Officer, James Fenimore Cooper School MPS



High School essays are to be between 500 and 600 words in length. Middle School essays are to be between 400 and 500 words in length. A Word document or PDF is preferred. We will be featuring the winners in our Holiday Issue which will be released in mid-December. The honorable mentions will be presented in the following three issues. This contest is open now for submissions, and the deadline for entries is December 2nd at 5:00 p.m.

Entries must include a teacher contact name, what school the student is attending, and grade.

SEND ENTRIES TO:

dreamcareers.teachingtoday@gmail.com

For any questions please contact:

Andria – andria@teachingtodaywi.com, 715-360-4875

Renee – renee@teachingtodaywi.com, 715-839-7074

Creations Come Alive at 3D Print Club



Stephanie Blue
Prairie View Elementary Principal
Mukwonago Area School District

A 3D Design Club was a new activity option for students at Prairie View and Clarendon Avenue Elementary Schools during the 2018-'19 school year to allow them to explore 3D printing. The club was created

and taught by Christine Perkins and Megan Jochem, library technology specialists for the two schools.

Perkins wanted to offer students an after-school opportunity because the schools had purchased a 3D printer but were struggling to find time during class to show students how to use it and design products effectively. In the club, students in 4th, 5th, and 6th grades explored CAD design with the Tinkercad application and used the engineering design process to create projects printed with the Makerbot 3D printer.

In week one, students learned how to cut holes in objects on Tinkercad and explore basic shapes. Each student designed and printed a bookmark. The next week students worked on building vertically, with each student designing their own pencil holder. During the last session, students used skills they learned the first two weeks, filled out a

planning sheet based on the design thinking process, and designed and built their own 3D creation.

Aidan Christensen, a 6th grader at Prairie View, enjoyed his time in the club. "I loved being able to create what I wanted with no rules and use specific measurements and tools to create an object on my own," he said.



There was so much interest in this club that both schools hit capacity within days. The schools look forward to increasing capacity and offering the club to more students next year.

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What is KIDS Lab?

KIDS Lab cultivates excitement in technology by engaging students in creative thinking, problem solving and collaboration through discovery-based learning.

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D.C. Everest Middle School Steam Teams Earn Top Honors in Statewide eCybermission Competition



D.C. Everest area School District

Last spring the U.S. Army Educational Outreach Program (AEOP) announced that the 7th grade Team Jerassic Cheetas — Landon Lee, Jordan Ukpong and See Yee Yang — from D.C. Everest Middle School was a 1st place state winner in the 17th annual eCYBERMISSION competition. In addition, the 7th grade L.L.K. Smart Team — Kelsie Clark, Lynsey Imlach and Lillian Jessen — earned an Honorable Mention.

eCYBERMISSION — one of several

science, technology, engineering and mathematics (STEM) initiatives sponsored by the U.S. Army Educational Outreach Program (AEOP) — is administered by the National Science Teachers Association (NSTA). Students are challenged to work in teams of 3-4 to identify a problem in their community and use scientific practices or the engineering design process to develop a solution. The teams submitted their Mission Folder — the official write-up of the project — through the eCYBERMISSION website to be evaluated

and scored by volunteer virtual judges.

Team Jerassic Cheetas worked together with DJ Huddleston, Team Advisor, and Team Mentor Rodney Dombrowski of Wausau Tile on an environmental research project to determine the effect of recycled plastic on concrete quality. First-place state winning teams received \$1,000 per student team member in U.S. EE Savings Bonds.

The L.L.K. Smart Team completed an environmental research project examining how increasing the thickness of plastic bag sheeting, via lamination, affected its tensile strength.

Kyleigh Graham, Madelyn DuBore and Dakota Witucki — Team D.M.K. Lab Rates — examined how the orientation of corrugated cardboard laminates affects the load capacity of a cardboard beam.

“The remarkable projects submitted by these students demonstrate their commitment to tackling some of their communities’ most daunting challenges. The U.S. Army is truly awed by the thoughtfulness and originality behind the ideas put forth by these students,” said Christina Weber, AEOP Cooperative Agreement Manager. “I congratulate the state winners on their accomplishments and wish them luck in the next phase of the eCYBERMISSION competition.”

“We are so proud of all the state winning



teams for their hard work, dedication, and ingenuity in applying STEM to solve problems in their communities and create positive change in the world around them,” said NSTA Executive Director Dr. David Evans.

www.dce.k12.wi.us
(715) 359-4221



Join the STEM Movement. **Wherever** you are. **Whoever** you are.

eCYBERMISSION is a web-based STEM competition for students grades 6-9 sponsored by the **U.S. Army Educational Outreach Program**. **eCM** is looking for educators, community leaders, parents, and professionals interested in STEM to create teams of students.

REGISTRATION IS NOW OPEN!

Visit ecybermission.com to register and complete your teams by November 20th and your students will receive a FREE STEM Kit.

VOLUNTEERS NEEDED!

Visit the site to learn more.

Accept the Challenge.
Join the Mission.



Ecybermission
ACCEPT THE CHALLENGE



M MHS Robotics Team 930 Dominates on World Stage



Benjamin Kossow
Mukwonago Area School District
Coordinator of Assessment and Data

Mukwonago FIRST Robotics Team 930 returned home from the FIRST World Championship at Ford Field in Detroit this spring celebrating a 2nd-place finish. The robotics team, consisting of nearly 50 students and over a dozen mentors and coaches, competed against more than 400 teams from across the world. In taking 2nd place, Team 930 became only the second Wisconsin team ever to place as a world championship finalist.

Team 930 overcame adversity on its path

to the finals. Starting in January, the team typically has six weeks to build and test a robot they design from the ground up within strict rules and a limited budget.

“We lost a lot of time due to snow days in January, but the whole team stepped up to work together and get things done, coming in to work overtime on Fridays and Sundays and putting in extra hours during the week,” said Samantha Murphy, Team 930 member and MHS senior. “Every day was spent constantly innovating and improving because we can always do better, and it really paid off.”

Internationally, over 3,700 teams com-

peted in regional events to qualify for the FIRST World Championship. Team 930 competed at events in Chicago, Iowa, and Milwaukee against dozens of other regional teams to earn a spot in the World Championships, where the team advanced to the elimination rounds and rose to the top.

“Going into the competition, I wasn’t very optimistic about how we would do, because the competition is pretty tough at the world championship,” Murphy said. “But as we kept advancing in the competition, everyone got more and more excited to be there, and it really motivated us to go further because we knew then that we could.”

“The big goal of this program is to give students opportunities for learning that they don’t get in a typical high school program,” said Greg Billetteaux, a lead mentor for Team 930, MHS graduate, and former Team 930 member.

Billetteaux, a software engineer for Milwaukee-based RokkinCat, an engineering company, explained that mentors encourage students to use design and build processes that mirror what one would find in real-world industries.

“I’ve learned so much about programming, the engineering process, teamwork, and leadership throughout the years and I am so grateful for it,” Murphy said. “Being a part of Team 930



inspired me to keep pursuing [science, technology, engineering, and math] and study computer science at Purdue University next year, and I will take all of the valuable lessons I’ve learned with me.”

www.masd.k12.wi.us
(262) 363-6300



STEM Contests

eCybermission Competition

eCYBERMISSION is a web-based science, technology, engineering, and mathematics (STEM) competition for students in grades six through nine that promotes self-discovery and enables all students to recognize the real-life applications of STEM. Teams of three or four students are instructed to ask questions (for science) or define problems (for engineering), and then construct explanations (for science) or design solutions (for engineering) based on identified problems in their community. Students compete for State, Regional, and National Awards. The U.S. Army Educational Outreach Program is committed to answering the Nation’s need for increased national STEM literacy and to expanding STEM education opportunities across the country to open doors to new career paths for American students that lead to a brighter tomorrow.

Deadline: To receive a free STEM kit, register by November 20, 2019.

Website: www.ecybermission.com/

National Science Bowl

The US Department of Energy (DOE) National Science Bowl (NSB) is a nationwide academic competition for middle and high school students that tests knowledge in all areas

of science and mathematics. It was created in 1991 to encourage students to excel in mathematics and science and to pursue careers in those fields.

Deadline: Regional competition dates vary, but are typically between January and March. See the website for specific dates. The national competition will take April 25 through 29, 2019; and April 30 through May 4, 2020.

Website: www.energy.gov/science/wdts/workforce-development-teachers-and-scientists

National Geographic Bee

Each year thousands of schools in the United States participate in the National Geographic Bee (Nat Geo Bee). The contest is designed to encourage teachers to include geography in their classrooms, spark student interest in the subject, and increase public awareness about geography. Public, private, and home-schooled students, as well as Department of Defense Dependents Schools, in grades 4 through 8 are eligible for this challenging test of geographic knowledge.

Deadline: Registrations are accepted August 1, 2019 through January 24, 2020.

Website: www.nationalgeographic.org/education/student-experiences/geobee/

EngineerGirl Essay Contest

The annual EngineerGirl Essay Contest encourages students to write about the role of engineering in society and the impact it has on our world. Essays for the current contest, which is entitled, “Engineering For Your Community,” should convince other to improve the community’s infrastructure.

The contest is open to individual girls and boys in each of three categories:

- Grades 3 through 5 (ages 8 to 11)
- Grades 6 through 8 (ages 12 to 14)
- Grades 9 through 12 (ages 15 to 18)

First-place winners are awarded \$500, second-place entries \$250, and third-place entries \$100.

Deadline: Essays are due February 1, 2020.

Website: www.engineergirl.org/127874/2020-contest

Toshiba/NSTA ExploraVision Competition

ExploraVision is a science competition that engages students teams in research and development with a strong emphasis on science, technology, engineering, and mathematics (STEM). Working in teams of two, three, or four members, students study a technology of

interest and predict what that technology might be like in 20 years, and then explore what is necessary to make their visions a reality.

Each first-place team receives a prize of a US EE Savings Bond worth \$10,000 at maturity for each student. Each second-place team receives a prize of a US EE Savings Bond worth \$5,000 at maturity for each student.

Deadline: Projects are due February 10, 2020.

Website: www.exploravision.org/what-exploravision

World of 7 Billion Student Video Contest

Create a short video – up to 60 seconds – about human population growth that highlights one of the following global challenges: Sustaining Water Systems, Ensuring Economic Opportunities, Improving Climate Resiliency. All videos must include:

- a) how population growth impacts the issue
- b) at least one idea for a sustainable solution

For high school, one first prize of \$1,000; one second prize of \$500; and two honorable mentions of \$250 are given, for a total of 12 prizes. For middle school, one first prize of \$500 and one runner up prize of \$250 are given for a total of six prizes.

Deadline: Entries are due February 27, 2020.

Website: www.worldof7billion.org/student-video-contest



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This article is for informational purposes only and is not intended to constitute legal, financial, or tax advice. Certain recommendations or guidelines may not be appropriate for everyone. Consult your personal advisor or attorney for advice specific to your unique circumstances before taking action. (The Trustee Custodian for the WEA Member Benefits IRA accounts is Newport Trust Company. To be eligible for this program, you must meet the IRS eligibility requirements for contributing to an IRA. *Restrictions may apply. Wisconsin residency required.

Apply for a Grant



FEATURED GRANTS

\$10,000 Classroom Makeover from The Meemic Foundation!

The Meemic Foundation has partnered with Lakeshore® to give away the largest grant award ever in the history of the Foundation! We are giving away three Complete Classrooms® from Lakeshore valued at up to \$10,000 each to Wisconsin teachers! No application to complete — simply log in to your Foundation Club account and nominate yourself, a local school or educator. Deadline is Dec. 31.

Website: MeemicFoundation.org/LargestEver

Monthly Grant Opportunity from The Meemic Foundation!

We invite you to PopIn2Win! It's The Meemic Foundation's monthly opportunity for a valuable resource or tool that will enhance your school or classroom learning for your students! It's super-fast and easy. No application to complete. Just log in to your Foundation Club account and nominate yourself, a local school or educator to enter the current month's PopIn2Win opportunity.

Website: MeemicFoundation.org/PopIn2Win

Webb Family Foundation Grants

The Webb Family Foundation makes grants in the areas of education; youth development; career and workforce readiness; financial literacy; entrepreneurship; science, technology, engineering, and mathematics; digital and blended learning; and youth mentorship.

Deadline: Letters of Inquiry are accepted year-round.

Website: webbfamilyfoundation.org/learn-how-to-apply/learn

Tina B. Carver Fund

Established in memory of a longtime English as a Second Language (ESL) educator, the Tina B. Carver Fund provides grants to teachers for funding student classroom learning materials and teacher materials (e.g., ancillary materials that can be used in conjunction with textbooks or other instructional materials) to support adult ESL education programs in the United States.

Grants up to \$400 are awarded.

Deadline: Applications are due January 31, May 31, and September 30, annually.

Website: www.tesol.org/enhance-your-career/tesol-awards-honors-grants/teaching-materials-grant

Music Education Grants

The Guitar Center offers grants that support music education projects and programs. The company believes that music inspires creativity and personal expression, builds self-esteem, and teaches cooperation and team building from playing music together.

Deadline: Applications are accepted year-round.

Website: www.guitarcenter.com/pages/corporate-giving

Arts in Education and Sapling Grants

The Laird Norton Family Foundation offers Arts in Education and Sapling Grants that focus on children, youth, and education. Funding aims to increase and improve prekindergarten through grade 12 arts learning in US public schools.

Deadline: Information forms are accepted year-round.

Website: www.lairdnorton.org

Community Action Grants

AAUW (formerly American Association of University Women), through its Community Action Grants Program, provides funds for innovative programs or nondegree research projects that promote education and equality for women and girls.

One-year awards range from \$2,000 to \$7,000, and two-year awards range from \$5,000 to \$10,000.

Deadline: Applications due December 1, 2019.

Website: www.aauw.org/what-we-do/educational-funding-and-awards/community-action-grants

Shumann Foundation Grants

The Robert F. Shumann Foundation awards grants to programs in education and those emphasizing environmental sustainability, particularly open-space habitats; arts, culture, and humanities; and animals, particularly birds and ornithology studies.

Deadline: Applications accepted year-round and are due February 28, annually, to be reviewed at the annual grant meeting.

Website: www.wellsfargo.com/private-foundations/schumann-foundation

“A strong reputation is like a good bonfire. When you have one kindled it's easy to keep the flame burning, . . . But if you fall asleep and neglect it, you'll wake up with ashes.”

— President Zachary Taylor



Partners in Play: Building Skills and Friendships

Early Education Program Designed Around Students With Special Needs



Shorewood School District

On weekday afternoons, Katie Madlung's classroom at Lake Bluff Elementary School is bustling with the usual activities of early childhood education. But the program she directs, Partners in Play, is unique in its design and goals.

Not quite preschool, not quite kindergarten, Partners in Play is designed around students

with special needs, to foster progress in their education and development with help from typically developing peers.

Madlung is the Shorewood School District's early childhood special education teacher. She and her team conceived Partners in Play to provide a new opportunity for children aging out of Birth to 3, Wisconsin's early intervention program for infants and toddlers with special needs.

Previously, Madlung and other intervention experts provided state-supported services for qualified

3- and 4-year-old students in the classrooms of the District's preschool program, Bright Beginnings. "We thought, 'What about if the occupational therapist, the speech pathologist and I were to do our own early childhood program, and tailor it to what our students really needed for their individualized education plans and goals?'" Madlung says. "And also, bring in typical peers, so they

would have those wonderful role models."

Partners in Play launched in fall 2017 with 12 students, six of whom were qualified to receive interventional services. All 12 attended K4 in the mornings, then would come to Madlung's room for lunch, rest time and an afternoon of more learning and play.

Madlung says it's ideal to have at least equal numbers of special-needs students and typical peers in class, or even a majority of typical kids, which she has this year. "The biggest benefit of Partners in Play is that my students see behaviors that they are able to emulate," she says. "So they see students sitting on the carpet, engaging appropriately, raising their hands . . . all the things we want to see them doing. And the goal is, 'Oh, I see my friend doing that, I'm going to do that, too.'"

Jessica Micol Buss, whose son Winston, 4, is one of Madlung's current students, says she was thrilled to find a program designed around Winston's educational needs that also included daily exposure to typical peers.

"Winston absolutely loves going to school and he loves his school friends and teachers," says Buss. "His play skills and social skills have grown incredibly over the course of the school year and we see these skills carrying over at

home and in the community. His is making amazing strides in his goal areas while he learns excellent foundational skills for school readiness and behavior. Partners in Play has completely exceeded our expectations."

Madlung says inclusive early-childhood educational settings like Partners in Play are beneficial for all students. "Once the typical kids get to know my students, and having grown up with them from a young age, they just perceive them as part of their class, no matter how they act or what they do," Madlung says. "They just accept them, and will even look out for them and care for them. It can be a really powerful relationship."

For more information about Partners in Play, contact the Special Education team at 414.963.6906.

(Story written by Paula Wheeler and photo taken by Jon Kirm for Shorewood Today magazine.)

www.shorewood.k12.wi.us
(414) 963-6900



Marcy Elementary Named 2019 National Blue Ribbon School



Principal — Michele Trawicki
Hamilton School District Superintendent —
Paul Mielke, Ph.D

Marcy Elementary is a K-5 school grounded in a tradition of excellence. From our humble beginnings as a one-room, rural school in 1888 to becoming a high-performing, suburban school, the roots of high standards have not changed. Marcy is one of seven schools in the Hamilton School District. Located west of Milwaukee in northern Waukesha County, the district serves 4,831 students who come from six municipalities.

Marcy earned this award as an Exemplary High Performing School. Since the Wisconsin State Report Card was first implemented in 2011, Marcy has earned the highest rating of "Significantly Exceeds Expectations" every year. Our focus over the years on high academic

expectations as well as providing a safe, welcoming environment has paid dividends.

At Marcy we embrace traditions. One of the most treasured traditions is our annual Veterans Day assembly. Six hundred students gather to honor those who served our country and their families, and our veterans appreciate the respect shown to them. Additionally, hundreds of people support family fundraising events, such as our Fun Run and Marcy Carnival, which run seamlessly because of committed parent and community volunteers.

Our staff does not take lightly the responsibility of educating students to help them reach their full potential. With decreasing budgets and increasing class sizes, we embrace our challenges as a family – working as a team to capitalize on available resources. Many of our processes and structures have been built to support every student's unique needs and learning style. As a staff we have invested in developing best practices in both academics and social-emotional development. Multidisciplinary teams meet continuously to analyze data and plan for adjustments to instruction which may be delivered one-on-one, in small groups or whole class. Planning is done with grade level cohorts and with the guidance and support of resource teachers and administrators. Sharing ideas among teams and from other teachers who are finding success is key to promoting student growth and developing our own toolbox of strategies.

Our annual site plan is informed by the latest research and information regarding best practices in education. Our building leadership teams analyze annual data to help us monitor our practices and make necessary adjustments to the previous site plan. Once the building leadership team has developed a plan that identifies strengths and greatest needs for growth, the grade level teams begin their planning. Teams work in consultation with specialists, special education teachers and administrators. We collaboratively identify the next steps for improvement, always considering the continuum of instruction from individual learners to whole group instruction.

District initiatives are included and implemented into our site plan with careful consideration. Our school is often a step ahead in the implementation of these initiatives allowing us to customize the direction to best fit our learners. We never accept a new curriculum or initiative without first considering the purpose. Is it something that will further our students' development as learners and citizens? We delve into the research to determine the best implementation based on fidelity to the curriculum and relevance to our students. During monthly instructional team meetings, we engage in learning conversations about our goals and direction utilizing protocols. The protocols help us respond to current questions and build upon each other's strengths.

School culture is foremost in what makes Marcy great! The saying "Choose a job you love, and you will never have to work a day in your life," is especially applicable to Marcy. Marcy teachers are not merely workers; they are educators who nurture our students. Teaching is truly a passion and a calling. Marcy staff members are invested in their own development so that they can provide the best environment possible for our learners. Whether a paraprofessional, custodian, or teacher, we are a cohesive team. We share in the most mundane duties and embrace the most complicated challenges. Students see us working together to be our best so that they can be their best. The relationships we build with our students, community and staff are what cement us in continually reaching higher levels of achievement. We reach beyond excellence and work towards what is possible. Students want to be their best because we strive to be our best.

For more information about the National Blue Ribbon Schools program and the schools receiving the 2019 designation, visit: www2.ed.gov/programs/nclbbrs/index.html.

Source — National Blue Ribbon Schools Program; U.S. Department of Education

www.hamilton.k12.wi.us
(262) 246-1973



Cedar Hills Elementary Earns a 2019 National Blue Ribbon Award

Principal — *Keith Ruffolo*

Oak Creek-Franklin Joint School District Superintendent — *Dan Unertl*

Cedar Hills is one of seven elementary schools within the suburb of Oak Creek, Wisconsin. Part of the Oak Creek-Franklin Joint School District, Cedar Hills earned this award as an Exemplary Achievement Gap Closing School.

Cedar Hills achieved a perfect score in closing achievement gaps in English Language Arts and a nearly perfect score in mathematics on their school report card released by the Department of Public Instruction.

There is so much diversity within our school community. We are a community of learners. Our families come from all over the world, speak different languages, celebrate different holidays, eat different foods, but when we are here, we are one community. Along with linguistic diversity, we have a great deal of cultural diversity. Within our school community, we work alongside students, staff, and parents who have been born in countries from all around the world. We have a great deal of linguistic, cultural, and religious diversity. That diversity is continually acknowledged and celebrated.

Throughout the past few years, we have used goal setting as a strategy at Cedar Hills in order to promote self-advocacy. Our staff started this process by doing a book study around a growth mindset in order to learn how to help

students reach their full potential. Our staff uses the idea of a growth mindset to encourage students in all areas of learning. The concept of a student not having not gotten there “yet” is strongly embraced in our school. Students discover that they can achieve anything if they put forth the effort and use mistakes as opportunities to improve. In the classroom, students discuss their individual goals regularly, as well as their goals as a larger classroom community. Through cycles of Plan, Do, Study, and Act (PDSA), students and teachers modify learning plans and discover strategies that lead to success in the areas of literacy and mathematics. This systems approach is referred to as CLS or Classroom Learning Systems in our district. Teachers help guide students to see themselves as co-producers of learning and continually study their learning results in order to increase their metacognition. This systems approach is visible in regular education classes, as well as our physical education, art, world language, and music classes.

In order to help inform goal setting, our students take a universal screening assessment three times per year in the areas of literacy and math. As a school, we involve staff members in conversations around this data. Specifically, we analyze the data of students whose scores are below the twenty-fifth percentile. Through support from pupil services, our English Learner (EL) specialist, and our learning coach, we review universal

screening data and determine which students need additional interventions.

At Cedar Hills, we understand the importance of teaching the whole child. We use a restorative approach to resolve conflict and prevent further harm. Listening to students talk about what happened, who was affected, and how they can make it right helps make their voice heard and helps build conflict resolution skills for the future. Implementing a schoolwide mindfulness curriculum has also supported this approach. Classrooms promote mindfulness daily and explicitly teach students how to focus, manage emotions, handle stress, and resolve conflicts.

“We celebrate diversity at Cedar Hills,” Principal Keith Ruffolo shared. “We live and breathe our school vision statement, You Belong Here, which reflects the care and compassion for students and families and has set a strong foundation for learning.”

“It fills all of us here in Oak Creek/Franklin with immense pride to have Cedar Hills Elementary earn this extremely high honor,” said Dan Unertl, superintendent of the Oak Creek-Franklin Joint School District. “This national recogni-



tion is a true testament to the dedication of our hardworking faculty and staff, the outstanding leadership of Principal Ruffolo, our supportive families, dedicated School Board, exceptional community, and our amazing students.”

For more information about the National Blue Ribbon Schools program and the schools receiving the 2019 designation, visit: www2.ed.gov/programs/nclbbrs/index.html.

Source — *National Blue Ribbon Schools Program; U.S. Department of Education*

www.ocfsd.org
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Presidential Awards for Excellence in Mathematics and Science Teaching



The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) are the highest honors bestowed by the United States government specifically for K-12 science, technology, engineering, mathematics, and/or computer science teaching. The Awards were established by Congress in 1983. The President may recognize up to 108 exemplary teachers each year.

Awards are given to science, technology, engineering, mathematics, and/or computer science teachers from each of the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Department of Defense Education Activity schools, or the U.S. territories as a group (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and U.S. Virgin Islands).

The award recognizes those teachers

have both deep content knowledge of the subjects they teach and the ability to motivate and enable students to be successful in those areas. Since the program's inception, more than 4,800 teachers have been recognized for their contributions in the classroom and to their profession.

Awardees reflect the expertise and dedication of the Nation's teaching corps, and they demonstrate the positive impact of excellent teachers on student achievement. The National Science Foundation administers PAEMST on behalf of The White House Office of Science and Technology Policy.

Recipients of the award receive the following:

- A certificate signed by the President of the United States.
- A paid trip to Washington, D.C., to attend a series of recognition events and professional development opportunities.
- A \$10,000 award from the National Science Foundation.
- An opportunity to build lasting partnerships with colleagues across the nation.

Wisconsin's 2019 Awardees Congratulations!

The awardees were selected from the finalists chosen by the Wisconsin Department of Public Instruction in the years 2017 and 2018. The awards were announced October 15, 2019.



**Richard Erickson 7–12, Science
Bayfield High School
School District of Bayfield**

“It goes without saying that it is a true honor to be recognized for the work that has

been my passion for 35 years. I am excited to receive the Presidential Award while also acknowledging the many teachers who are deserving of recognition for their efforts to foster the sense of wonder in students. It is a testimony to the science teachers who fanned the flame of my curiosity, my colleagues with whom I have collaborated on exciting projects, and my role models who have made me a better teacher.”

Richard Erickson has been teaching for 35 years and has been at Bayfield High School for 25 years. There, he teaches 11-12th-grade Chemistry and Physics, and a science-focused experiential learning alternative education program for 9-12th-grade at-risk students. Previously, he taught for ten years at Mahtomedi High School in Minnesota.

Richard collaborates with scientists from the Red Cliff Band of Lake Superior Chippewa, the National Park Service, and Northland College to provide his students with authentic scientific experiences and research opportunities. He facilitates independent student research and encourages his students to participate in science fairs. Richard has worked with the University of Wisconsin to develop a summer program focused on indigenous arts and sciences, targeted toward Native

Continued on Page 21

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andria@teachingtodaywi.com

Thank you, to all our past, present and future contributors!

Presidential Awards for Excellence in Mathematics and Science Teaching Continued from Page 20

American students. For the past three years, he has coordinated science festival events in the northwest region of the state and has served on the Wisconsin Department of Public Instruction “Reimagining Science Fairs” committee.

Richard was a Minnesota Teacher of the Year Finalist in 1992 and the 2014 Wisconsin High School Teacher of the Year.

Richard earned a B.A.S. in teaching physical science and is a National Board Certified Teacher and is certified in broad field science, physical science, chemistry, physics, and alternative education.

www.bayfield.k12.wi.us
(715) 779-3201



Michelle Howe K-6 Science
Lodi Middle School
School District of Lodi

“The Presidential Award is a way to celebrate science education and all the great things teachers do! It’s a true honor for not only myself but my family and colleagues that have supported me. Receiving this award inspires

me to continue my passion and dedication in promoting science and STEM education in my school, community, and state. I look forward to the collaboration and work with other Presidential Award winners to improve my teaching and student learning.”

Michelle Howe has been a teacher for the past twelve years at Lodi Middle School. She currently teaches sixth grade science. Michelle previously taught at Janesville Craig High School for one year. Michelle has implemented a blended agriculture class in which students participate in agriculture and the Future Farmers of America. She previously taught agriculture for six years.

Professionally, Michelle is involved with the Wisconsin Society of Science Teachers and the Wisconsin Association of Agricultural Educators. Michelle is involved in her school district as a sixth-grade team leader, District Science Department chair, and STEM Fair chair.

To improve learning and bring real-world applications to her students, Michelle has participated in the Wisconsin Forward Exam review, American Wilderness Leadership School, Great Lakes Shipboard Science Research, a Thailand exchange, Citizen Science-WI, and the Department of Natural Resource’s (DNR) Snapshot Wisconsin. She is a Wisconsin DNR Certified Instructor and National Board Certification 2019 candidate.

Michelle holds a B.S. in agricultural education and earned her M.S. in agricultural education and biology from the University of Wisconsin-River Falls. She also earned her English as a second language, environmental studies, and English language arts teaching licenses.

www.lodi.k12.wi.us
(608) 592-3851



Kevin Reese 7-12, Mathematics
Clintonville High School
Clintonville Public School District

“Even with this recognition, I still feel there is more work to be done for me to improve as a teacher. I arrive each morning ready to take on the challenge of another student that I have yet to fully engage in learning and to bring out their best as a person. This is a tribute to all the students I have ever taught who inspired me to give my best effort in and out of the classroom, and for all my hardworking colleagues who have dared with me to take risks to improve instruction for our students.”

Kevin Reese has been a mathematics teacher at Clintonville High School for his entire 17-year teaching career, currently assigned to teach 9-12th-grade Advanced Algebra, Pre-Calculus, Advanced Placement Statistics, and AP Calculus. Kevin is also an adjunct instructor for the UW-Oshkosh, permitting qualified students in his Pre-Calculus, Statistics, and Calculus courses to earn dual credit from the UWO campus. In his classes, Kevin works to incorporate student-centered activities that everyone can grasp, but that have high learning potential.

Throughout his time teaching mathematics, Kevin has maintained a passion for leadership. In addition to leadership roles within his mathematics department, building, and district, he currently serves on a state-wide committee that is working to develop a guide that will consist of instructional practices aimed at promoting educational equity in mathematics throughout the state of Wisconsin. He also works to develop future leaders through his advising of the student council at Clintonville High School. Kevin is a member of the Wisconsin Mathematics Council and the National Council of Teachers of Mathematics.

Kevin earned a B.S. in mathematics from the University of Wisconsin-Stevens Point and a M.S. in mathematics education from the University of Wisconsin-River Falls. He is a certified teacher for grades 9-12 mathematics..

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Rebecca Saeman K-6, Mathematics
Sauk Trail Elementary
Middleton-Cross Plains Area

“Being honored with the Presidential Award reconfirms my purpose as an educator and encourages my passion for and dedication to my mathematics students and fellow educators. As mathematics teachers, we must remain dedicated to empowering students to acquire new learning skills, expand their mathematical understanding, and develop self-confidence to fully apply themselves throughout their future academics. I share this award with my inspiring children, dedicated educators, and supportive family.”

Rebecca Saeman has been employed within the Middleton-Cross Plains Area School District as a Math Interventionist for over 12 years. She has spent the past nine years as a Math and Reading Interventionist at Sauk Trail Elementary. She previously served as Math Interventionist at Northside Elementary and Park Elementary.

Rebecca loves working directly with her students to grow their academic skills and confidence levels. She focuses on making sure all students are aware of the learning targets for the lesson and why the learning is relevant and important. She also enjoys counseling educators in the area of conceptual mathematics, so they may pay forward these same learnings to their own students.

In addition to her daily student curriculum and educator training, Rebecca also cofacilitates the annual STEAM clubs for students in first and second grades to inspire their enthusiasm for STEAM through discovery-based learning.

Rebecca has conducted several professional development presentations at National Math Recovery Conferences and within her school district. Topics include early numeracy skill development and activities to promote student growth. Rebecca holds a B.S. in elementary education and she has earned both a Reading Teacher License and a M.S.Ed.

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Major Award for WSD Director of Curriculum and Instruction



Dr. Connie Gartner, director of curriculum and instruction at the Wisconsin School for the Deaf (WSD), received the Leadership & Service Award from the Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD). CEASD presented the award to Gartner at their annual conference banquet in Denver, Colorado on April 28. Marla Walsh, director for the Wisconsin Educational Services Program for the Deaf and Hard of Hearing, and superintendent of the Wisconsin School for the Deaf, accepted the award on Gartner's behalf.

"To be nominated among people I hold

in great esteem is quite a humbling experience for me," Gartner said of the award. "It is a great organization that has as its sole purpose the support and furtherment of deaf and hard of hearing education for kids."

Gartner has worked at the Wisconsin School for the Deaf for over 21 years, developing a bilingual/bicultural educational program for Wisconsin's deaf students. She has implemented data-driven school improvement and student learning outcomes. Her strategic planning has advanced technology, curriculum alignment with Wisconsin state standards, and implementation of educator effectiveness at WSD. She has also taken an active role in WSD's pursuit of CEASD accreditation.

While pursuing her master's degrees, she learned of the leading-edge research about language and culture. She appreciated the newer ideas and learned the WSD was implementing them. "Being able to come to WSD and really see the research I had been engaged in being deployed here has been a really edifying experience," Gartner said.

The CEASD Leadership and Service Award is meant to recognize leaders with ten or more years of experience serving in education for the deaf and have recently retired or will retire at the end of the school year.

Upon retirement, Gartner plans to fulfill

unfinished travel plans with her husband, who is a teacher. And, as is the case with many life-long educators, she already has the feeling that she will serve in other capacities in what she calls "stepping down but not letting go." In her retirement, she may continue working to support more opportunities for deaf and hard of hearing students in the STEM fields. "Something with telescopes and astronomy," she said.

Gartner has been grateful to work for the Wisconsin Department of Public Instruction over all of these years and their support for the school. "I'm a huge believer in residential education for deaf kids. They have the opportunity to be just regular kids with other kids who are like them and with people who know how to communicate directly with them. To let go of that is a bit sad for me, but



I'm a big believer in new, fresh ideas, and it's an exciting time to be in deaf education in the state."

*Courtesy of the Wisconsin DPI
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Six State Finalists for Presidential Teaching Awards Named



The Wisconsin Department of Public Instruction named six educators as finalists for the 2019 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST), considered the highest honor bestowed by the U.S. government for mathematics and science teachers.

The 2019 awards recognize those who teach grades seven through 12. Wisconsin finalists are:

- **Stephanie Ballard**, high school science teacher, Campbellsport Middle-High School
- **Katie Haas**, middle school mathematics teacher, Edgar Middle School
- **Karen Olson**, high school science teacher, Baraboo High School
- **Jennifer Koziar**, middle school mathematics teacher, Edgewood Campus

School, Madison

- **Constance Rauterkus**, high school science teacher, Oconto Falls High School
- **Maighread McHugh**, middle school STEM and mathematics teacher, La Crosse Design Institute

“Wisconsin’s finalists for these awards help students every day to engage and excel,” State Superintendent Carolyn Stanford-Taylor said. “This requires not only expertise in their content area, but also an understanding of best instructional practices based on education research. To reach this level as an educator takes true dedication and commitment.”

Anyone may nominate a teacher for the award. States establish selection committees who select the finalists based on criteria required by the national PAEMST program. Established by Congress in 1983, the awards recognize teachers for high-quality instructional programs informed by content knowledge to enhance student learning. Awardees serve as models for their colleagues, inspiration to their communities, and leaders in STEM education; STEM is the abbreviation for science, technology, engineering, and mathematics, which includes computer science. Applications from Wisconsin’s finalists will be judged at the national level by a committee organized by the National Science



Foundation, which administers PAEMST on behalf of The White House Office of Science and Technology Policy.

Awardees receive professional development opportunities, \$10,000 from the National Science Foundation, and a trip to be recognized in Washington, D.C. Nominations for the 2020 awards, which will recognize educators in grades kindergarten through six, are expected to open in late November.

More information about the Presidential Awards for Excellence in Mathematics and Science Teaching can be found online at

www.paemst.org

<https://dpi.wi.gov/news/releases/2019/six-state-finalists-presidential-teaching-awards-named>



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Congratulations!

Kevin Reese '02

Presidential Award for Excellence in Mathematics and Science Teaching



"I arrive each morning ready to take on the challenge of another student that I have yet to fully engage in learning and to bring out their best as a person."

Kevin Reese discovered his purpose for mathematics education while at UW-Stevens Point. Since then, Kevin has spent 17 years as a mathematics teacher at Clintonville High School.



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