Winter 2024, Volume 2 WISCONSIN'S 4K-12 EDUCATION CONNECTION Winter 2024, Volume 2



"I wish we could stay here all day."

STEAM at Southern Door Schools



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As one of Southern Door Elementary's third grade classes is lining up and ready to head out of the classroom, STEAM Teacher, Jessica Meacham, hears a student say, "I wish we could stay here all day." This type of feedback is common from Southern Door's students. They visit the makerspace once a week for 60 minutes to engage in STEAM challenges and activities. The main focus of their time there is collaborative group work to identify solutions to real-world challenges. While the end result might seem most important: a solution that meets the client's needs, the process is equally important. Students work to refine their communication skills, express their

creativity, and challenge themselves to think critically when faced with frustration or failure.

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stay here all day." This type of feedback is common from Southern Door's students. They visit the makerspace once a week for 60 minutes to engage in STEAM challenges and activities. The main focus of their time there is collaborative group work to identify solutions to real-world challenges. While the end result might seem most important: a solution that meets the client's needs, the process is equally important. Students work to refine their communication skills, express their creativity, and challenge themselves to think critically when faced with frustration or failure.

At the elementary level, the Fab Lab has a balance of non-tech and high-tech tools. From cardboard and hand tools to 3D printers and laser cutters, students are engaged in the engineering process at an early age. If you ask students what their favorite is in the STEAM room, you'll get

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Finding a Signal

Prairie School research team ventures to remote forest in Costa Rica as part of school's first J-Term experience.

Brendan O'Brien Director of Communication

The Prairie School

There is no hot water at the Pacuare Reserve in Limon, Costa Rica. No electricity, either. Power, when required, is provided courtesy of a portable generator. Plastic, well-used cutlery is washed in a rudimentary basin where water is channeled via an exposed network of PVC piping. In small bunk rooms black

netting surrounds each bed, a preventative measure easily defeated by the cockroaches.

It was here 20 students and three teachers from The Prairie School, in Wind Point, Wisconsin, had the January of their lives.

This research trip, titled *Felines and Primates*, was part of the school's first-ever J-Term experience, a new, between semesters program with a goal of exposing students to topics that cannot be offered in the classroom while providing hands-on learning experiences with deep-dive focus.

Check and check.

Anyone familiar with teenagers understands the things capable of getting them out of bed at five in the morning is . . . well, it's not a long list. Turns out, however, that monkeys are one such motivator.

Every morning, their path guided by wooden railings, their bodies protected by long clothing and thick boots, the Prairie team



hiked into the jungle to study the behavior of local primates.

"The students would time how long the monkeys were doing certain things — eating, foraging, grooming, napping," says Jean Weaver, trip coordinator and Prairie's Science Department Chair. "If you get glimpses of that every day, that builds up to significant data to understand them. If you can understand them, then you can protect them."

And this — the understanding and protecting of the jungle's inhabitants — is central to Pacuare's work of ensuring a safe haven for the wildlife, a treasure deserving of appreciation

"From the start it was clear Costa Rica has a very different mindset about the environment than Americans do," says Weaver.

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Kennedy Middle School Technology & PLTW Education Changing with the Times

Jeff Thielke National Board Certified Instructor PLTW-Plastics-Technology/Engineering Kennedy Middle School, Germantown, WI

In 2011 I made a professional decision to join the Technology Education Department at Germantown School District. As An experienced Technology and PLTW Instructor. I had a new revised vision of how I wanted both Technology and PLTW Education to partnership, offering traditional, Technology and Pre-Engineering Education to students at Kennedy Middle School. I knew this would have to involve a total redesign of the present curriculum and renovation of the Labs, in order to accommodate this vision. Here is the story of this great partnership and voyage of success.

It all started with a two-year implementation Plan, offering the Nationally Certified Program, Project Lead the Way (PLTW), in the areas of Design & Modeling and Automation & Robotics; with applied activities in Science of Technology. This first year in 2011, there would be one semester in 7th and 8th grade. In year two, an additional Design & Modeling (B) and Robotics (B) class was implemented. This would enable the entire PLTW-GTT curriculum to be covered over the course of 7th & 8th grade. The more Traditional Technology Education Courses of Exploring Technology, Transportation, Communication, Construction and Manufacturing remained, but were up-dated



over the years to represent more relevant and practical activities. Student enrollment grew over the years, especially amongst our Female Students. In those early years, only 9% of our students were Female. Today, we have near 49% girls in the Technology & PLTW Program.

What's Happening

Exploring Technology Education (6th Grade)

The Construction Unit will include building and testing a Paper Bridge within specification; completing an Architectural Home

Design including interior decorating, utilizing 3-D imaging software. The Manufacturing Unit will include performing a Plastic Casting of the Golf Tee Game, including machining operations and Packaging Design. Designed package will transport an "egg" from 20' to the floor, safely; with material and weight limitations. The Pre-Engineering Unit will include performing CAD drawings of the Golf Tee Game, utilizing the PLTW 3-D modeling software. The Measurement Unit will include utilizing a Blueprint to transfer measurements to materials to construct

an Air Glider; including a performance distance test. In addition, Students will have units in Transportation, Communication and Robotics. The Transportation unit will include a paper rocket and Glider activity to teach concepts about ballistics and stability, and a flight activity about aircraft control. The Communication unit will include activities in semaphore coding, in radio station operation and in live television news production. In the Robotics unit students will assemble gear train mechanisms in order to learn about torque, speed, gear ratio and other power transfer concepts.

Construction (7th & 8th Grade)

Students will design a "Dream" home, including interior decorating, exterior furnishing and landscaping, utilizing 3-D imaging software. Students will build a wooden model bridge, with material and weight limitations, in order to perform a strength test. Students will build a 3/32" scaled floor, roof truss and model of a residential home wall and floor system. Students will perform Pre-Engineering CAD drawings of the bridge and residential home model design, utilizing the PLTW 3-D modeling software.

Communications (7th & 8th Grade)

Students will learn about many types of photography with an emphasis on lighting,

Continued on Page 9

Finding a Signal Continued from Page 1



"Sadly, it's just not part of our society. Our society thinks treasures are what you find at the mall or get on Amazon. Those are our treasures. At Pacuare, they have a very different definition."

The crash course in preservation was provided by Claudio Quesad, the Reserve's Research and Conservation Coordinator.

Recently featured on NPR's popular Here and Now podcast to discuss Pacuare's efforts to safeguard sea turtles, Quesad is a global expert on several different species.

"Claudio inspired our kids so much," says Weaver. "He was a walking encyclopedia."

This metaphor is important. Today's

teens exist in a decidedly encyclopedia-free society, a world of hyperconnectivity, one where answers - and stressors - live at their fingertips. One click, one swipe, one conversation with Siri and they have what they need, instant gratification, no pulling the "M" encyclopedia and flipping to "monkey" required.

At Pacuare, however, this changed: there were no cell phones allowed.

Life slowed down in the jungle. Students hiked and recorded data on clipboards. They noticed things, expertly identifying hole-ridden vegetation feasted on by leafcutter ants. They looked up, marveling at stars they'd never noticed before. They rode in a boat down a crocodile-infested river. They peppered Claudio with questions.

"Interacting with him, someone who has done so much for conservation, they began to understand how multidisciplinary this work really is," says Weaver. "I can say that, but when you start hearing the stories, the wins and losses, you start to really get it."

At The Prairie School, one theme rises above all other — community. The school is a place where every student is known, valued, supported, and challenged, where everyone strives to be their best self, where focus is given to the building and nurturing of relationships. This happens in the classroom all

the time. It can also happen in a jungle.

"We interacted in such an authentic, outof-the-box manner," says Weaver. "There were no technology distractions, no one hurrying off to show everyone in the world what we were doing. We were just doing. We laughed. We played games. We researched. We were in the moment in Costa Rica, and we were all in awe together."





<u>B</u>

Exploring Badger High School's STEM Programs



Jake Popanda College & Career Readiness Coordinator Badger High School

Badger High School is a district that strives to create environments where academic excellence meets innovation. The districts' vision statement is, "Creating and Connecting Opportunities for Excellence". At Badger, our commitment to providing top-notch education is reflected in our distinguished STEM programs. In this overview, we'll dive into the key features of our Engineering, Computer Science, and STEM Chemistry programs, highlighting the facts that define our approach.

Badger High School is a STEM education hub, anchored by our partnership with Project Lead the Way (PLTW) curriculum. This collaboration ensures that our Engineering and Computer Science programs are not just theoretical but incorporate practical skills crucial for real-world applications. Project Lead the Way is a strategic framework, guiding students toward success in dynamic fields such as engineering and technology.

Our Engineering program has garnered recognition on multiple fronts, notably being recognized as the Wisconsin Technology Education Association (WTEA) Program of the Year in 2022 and the prestigious ITEEA Program of Excellence Award in 2023. These accolades result from our commitment to delivering an outstanding curriculum that prepares students for the challenges and

opportunities in technology and engineering fields

As part of PLTW, our Computer Science program broadens horizons by providing students with immersive experiences in coding and contemporary technologies. With a focus on real-world applications, students in this program gain valuable insights and skills that prepare them for the rapidly evolving landscape of computer science. Similarly, the STEM Chemistry class at Badger High School serves as a platform for hands-on exploration in science. Through practical experiments, students delve into the fundamental principles of chemistry, igniting curiosity and promoting critical thinking. The science department at Badger has also

partnered with UW Madison to integrate Phenomena Based Learning, which is rooted in the idea that students can learn about science starting with observation.

Aaron Burg, Badger's Science Department head, emphasizes the dynamic nature of STEM Chem: "In STEM Chem, we collaboratively test designs and work through complex science that rarely has a single answer. Students experience learning and science as a process rather than as a destination. We think this is the best way that we can prepare ALL of our students, whether future scientists, citizens, partners, homeowners, business and community leaders, citizens -- humans -- to tackle the complexities that the future is certainly going to present. We anchor our learning in challenges such as designing hand sanitizer, quality-controlled tie dye, a disaster response food container, a marketable soap, a cross-categorical bath bomb, and optimization of cannons. We have fun working through the chemistry connected to these challenges."

Badger High School goes beyond traditional education by offering unique opportunities for dual enrollment with Gateway Technical College (GTC). This initiative allows students not only to earn high school credits but also to gain exposure to a college-level education. During the 2022 - 2023 school year Badger students and families saved \$536,845.18 in tuition from GTC through our transcripted credit programming. Transcripted credit courses are taught in our building by our highly qualified instructors through an agreement with GTC. Our school provides 32 different transcripted credit courses; among those 32 courses are varying Engineering courses. The seamless transition between high school and college sets our students on a path toward success in engineering, computer science, and chemis-

Our STEM programs emphasize practical application, ensuring students move beyond theoretical concepts to hands-on experiences. Utilizing tools like AutoDesk,

engaging in 3D printing, and conducting chemistry experiments, students witness the transformation of abstract ideas into tangible prototypes. This practical approach equips them with the skills necessary for success in their chosen STEM fields.

Badger High School takes pride in its FabLab, a facility that fosters innovation. In proximity to our design studios, the FabLab is a crucial space where students bring their ideas to life. Whether working with metals, woods, or engaging in advanced computer science and chemistry experiments, this lab unleashes creativity and pushes the boundaries of what's achievable in STEM fields. Rachel Harmeling, Badger's Library Media Specialist, highlights the value of the FabLab: "It is exciting to witness students entering the Badger FabLab with innovative concepts and using their STEM skills to bring those concepts to life. Whether it be the creation of a 3D-printed gaming keyboard or the crafting of a laser-cut wooden jewelry box, students acquire and develop invaluable skills that will contribute to their future success."

Badger High School's STEM programs are grounded in facts and achievements. The districts' mission statement; Engage, Educate, Empower is truly an embodiment of our comprehensive STEM and Engineering programs. From prestigious recognitions to hands-on labs and strategic partnerships, every element is meticulously crafted to provide students with a solid foundation and practical skills for success in the dynamic realms of engineering, technology, and science







Robust STEM Programs Set Students Up for Success in Oshkosh



Katie Nieman Communication Director Oshkosh Area School District

Oshkosh West and Oshkosh North High Schools provide robust STEM and engineering programs to set students up for success. Courses offer hands-on learning, mirror real-world applications, and connect to local business and industry.

Woodworking reflects the construction industry in the area. Students create practical projects like chopping blocks and end tables, learning various wood techniques. CNC machine operation is taught in advanced woodworking classes, providing relevant experience with automated equipment used by manufacturers. As part of the district's commitment to preparing the future workforce, students are also able to receive industry recognized credentials. In woodworking, that includes Autodesk Certified User - AutoCAD and Woodwork Career Alliance Core Credential.

Graphic arts taps into creativity, allowing students to follow the full design process for products like t-shirts, notepads, stamps, stickers, and signage using Adobe Illustrator. Industry certification in this software is also available, helping students get a leg up on their post-secondary plans while still in high

school. In the world of work, students are able to take graphic arts concepts and excel in marketing, publishing, product development, and

Coding and programming skills are also fundamental across STEM fields. Oshkosh students enrolled in robotics begin by learning how to use basic pseudocode and different robotic sensors and processes. At Oshkosh North, the annual bottlebot competition has become a highly anticipated and engaging learning experience. Teams design, build, and program battlebots that compete in an exciting mid-year competition. Strategic thinking and troubleshooting come together with coding abilities. Robotics students at Oshkosh West also take their learning to the field, programming robots to do a variety of tasks including playing soccer.

The engineering courses available at Oshkosh North and Oshkosh West blend academic rigor with projects and certifications. The curriculum mirrors college classes, allowing students to earn technical college credit and industry-recognized certification - specifically, Autodesk Certified User - Inventor. Students apply the engineering design process in challenges like the egg drop, practicing critical analysis and problem-solving. Students also have access to 3D printers and are able to explore additive manufacturing.





In welding and manufacturing courses, Oshkosh high school students develop key metalworking skills like welding and machining. Advanced manufacturing students at Oshkosh West are putting their abilities into practice building wood-burning rocket stoves, combining their welding expertise with engineering design principles. In addition, students in these courses are taking dual credit through FVTC, earning college credits while still in high school. The dual credit partnership allows students to get a head start on their post-secondary training in welding and manufacturing

Many other courses at Oshkosh North and Oshkosh West provide students with STEM exposure including construction, metals, electronics, mechatronics, auto/home maintenance, architecture, drafting, 3D design, and machining. This range covers diverse industries and allows students to discover passions

Beyond the classroom, students are regularly engaging in unique business tours and field trips to connect learning to potential careers that are available in Oshkosh. Eyeopening experiences include participating in the technical college's Hands-On, High-Tech Event and the Manufacturing First Expo field trip, as well as an immersive visit to the Operating Engineers Local 139 each year.

Lastly, in addition to the wide selection of STEM and career-focused courses, the Oshkosh Area School District's School2Work (S2W) program partners with local manufacturers to provide an immersive paid capstone experience for high school seniors. Students in the S2W program take classes that meet their high school credit requirements but that have been reimagined and are taught through a manufacturing lens. They get paid to work for an area company for four hours during the school day, and they take technical courses at the technical college's Advanced Manufacturing and Technical Center.

STEM education teaches students to approach problems methodically, think critically, and develop perseverance and creativity in solving challenges. The analysis, collaboration, communication, and technical aptitudes gained are invaluable for any career. Handson application in the Oshkosh STEM and engineering programs reinforces these skills while introducing various professions. With this exposure and development, Oshkosh high school students gain awareness and the ability to purposefully chart their academic and career paths.





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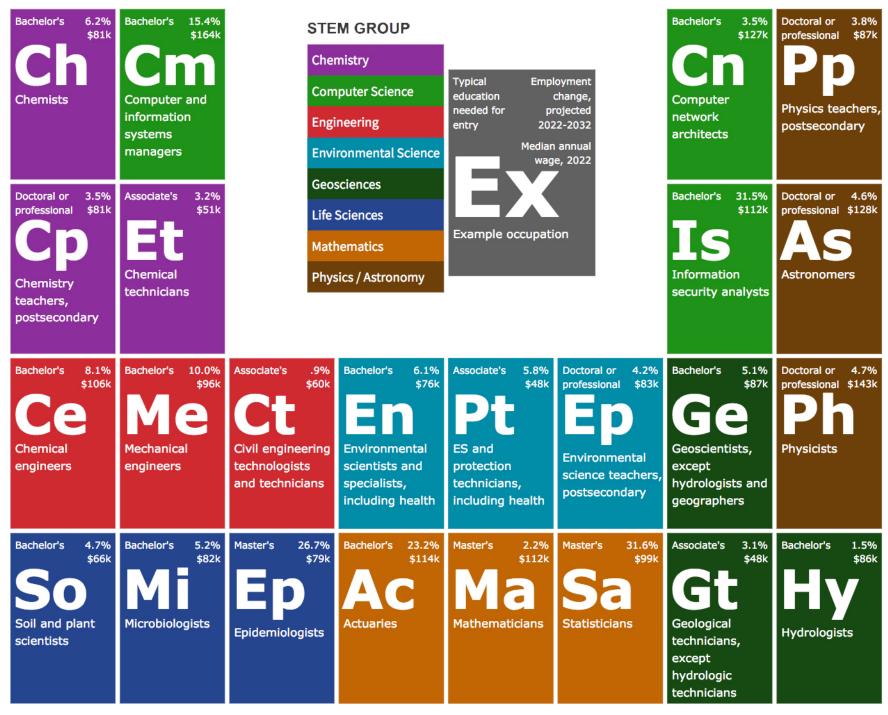


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Periodic table of science, technology, engineering and math occupations

The periodic table of chemical elements, created by Dmitry Mendeleev in 1869, is one of the most important achievements in modern science. To celebrate this achievement, BLS has created our own periodic table! Instead of elements, we have used Science, Technology, Engineering and Math (STEM) occupations. Workers in STEM occupations use science and mathematics to understand how the world works and to solve problems.



BLS U.S. BUREAU OF LABOR STATISTICS

Source: U.S. Bureau of Labor Statistics, Employment Projections program. The BLS would like to thank the Nebraska Department of Labor for the original idea for this table.



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Kennedy Middle School Technology & PLTW Education Changing with the Times

Continued from Page 4

composition, and editing. They will then experience the teamwork of multi-camera Television Production by planning, performing and filming a game show in one take. The stop-motion animation unit will explore the filmmaking process including set building and storytelling. Students will also build a working paper plate microphone/speaker to learn about electrical aspects of communication.

Manufacturing (7th & 8th Grade)

Students will perform Plastic Castings to create a Football tee, Giant Clothes Pin and Flexible Frog. Students will perform Plastic Injection Molding to create a screwdriver set, Rotational Molding to create a bank and Plastic Vacuum Forming to create a mold design for candy making. Students will perform Plastic Thermoforming to create a Clear picture frame. Students will perform fabrication, assembly and finishing of a "Gum Ball Machine" from wood. Students will design a 3D Printed Name Tag. Students will design a Mold to CNC Machine for Plastisol Casting. Students will perform Pre-Engineering CAD drawings of the gum ball machine and Name Tag, utilization the PLTW 3-D modeling software. Students will operate a Production Plastics Injection Molding Machine. Critical thinking, team work and problem solving are incorporated into the construction and testing of a "Rube Goldberg" device.

Design & Modeling (A) (7th & 8th Grade) (PLTW)

Students will utilize the PLTW 3-D mod-

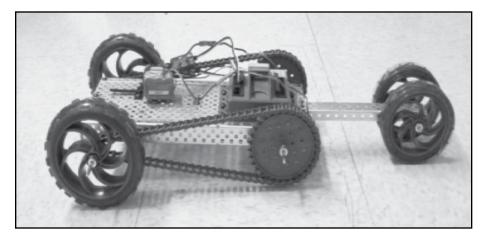
eling software to design and perform CAD Drawings of a Car and Boat vehicle. Students will fabricate their car and Boat vehicle design and perform weight to speed ratio tests. Students will design a Product to 3D Print, utilizing the 3D Modeling Software. Students will create a Graphics Design for constructing a 3" Button. Critical thinking, teamwork and problem-solving skills are incorporated throughout the course. Students will organize a Portfolio including all of their activities.

Design & Modeling (B) (8th Grade) (PLTW)

Students will utilize the PLTW 3-D modeling software to design and perform CAD Drawings of a Mag-Lev and Airplane vehicle. Students will fabricate their Mag-Lev and Airplane vehicle design and perform speed ratio tests. Student Teams will design and fabricate a "Leaf Blower" Hover Craft that a student can operate. Students will create a Graphics Design and transfer it to a "T-Shirt." Critical thinking, teamwork and problem-solving skills are incorporated throughout the course. Students will organize a Portfolio of all of their activities.

Transportation (7th & 8th Grade)

This class emphasizes a project - based engineering style approach to problem solving. Students will apply power tool skills and simple physics to design and build a mousetrap and crash car. They will continue to modify and improve the vehicle as they try to get it to travel as far as possible. Students will then learn electrical energy by building a DC motor and



various types of circuits. Students will learn about spaceflight and aerodynamics by building and testing a flying model rocket.

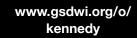
Automation and Robotics (A) (7th & 8th Grade) (PLTW)

In this course students will learn the skills needed to construct a smooth-running, reliable machine that can follow instructions. The class will start in the lab where students build a hydraulic arm and various mechanisms, demonstrating how mechanical energy is transferred. Students then combine multiple mechanisms and electric motors into a project of their own design. Students will then write a program to put their project into motion.

Automation and Robotics (B) (8th Grade) (PLTW)

Robotics B is a continuation of the A course with an emphasis on programming. First, students will learn how to code every type of sensor and motor. Students will then design and build a four- motor robot and code it for autonomous AND radio-controlled operation. Students will then race to complete various timed tasks in a class wide competition.

Watch for part 2 in the following (Spring 2024) issue of Teaching Today WITM





STEAM at Southern Door Schools Continued from Page 1



a variety of answers from robotics to cardboard engineering. And because of this, students are often given opportunities to blend the two.

This year, for example, students are working to design fingerboard parks. Each grade level's park features obstacles, as well as circuitry work that allows things to

light up, move, or make sound. Once complete, the fingerboard parks will be used in a green screen project, where students will superimpose themselves on skateboards in the parks. Families will be encouraged to engage with the fingerboard parks during the annual Family STEAM Night.

The program's success is in part due to

the collaborative work between CTE teachers within the district as well as with local industry. Teachers meet monthly to complete work that strengthens district-wide programming, and local businesses are invited to participate in the annual Advisory Council Meeting. These collaborations provide structure, guidelines, support, and coordination for the enhancement of career and technical education at Southern Door. The goal is to better prepare students for success in continuing education or the workplace.

At the elementary level, the STEAM program has a heavy focus on experiential learning, or learning through play-based experiences. Students are encouraged to be curious and brave, ask questions, and lean on one another when investigating potential solutions to the day's challenge or activity. They utilize the engineering design process as they work, which encourages them to persevere through failure and iterate to improve on prior attempts at a solution.

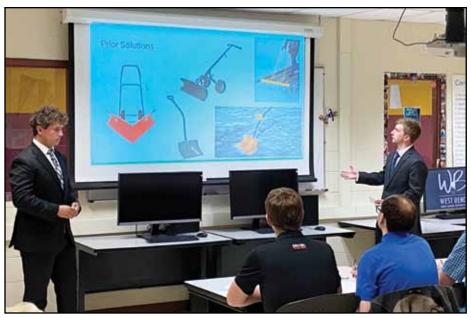
Walking past the makerspace and glancing through one of the windows would give you insight to just how busy students

are as they engage in their work. You'd notice students working in teams, using a variety of tools and materials, and you'd also notice the noise - evidence of productive learning.

A future growth area for the program includes increasing student connections with industry experts and mentors. While Southern Door elementary students have had on site visits from computer science, master gardener, and sewing experts and mentors, they realize the potential for increasing student awareness of potential job opportunities as well as helping them to connect the work they are doing in the STEAM room to the future work they will do outside of school.



West Bend East and West High Schools Engineering Program



Nancy Kunkler Communications Manager West Bend School District

One of the projects for students from West Bend East and West High Schools in the Principles of Engineering class is building a marble sorter. The students, using skills learned in the class, must design, build, program, and test a machine that will sort marbles by color into separate bins. Their designs show that they have learned to design and conduct experiments, as well as to analyze and interpret data.

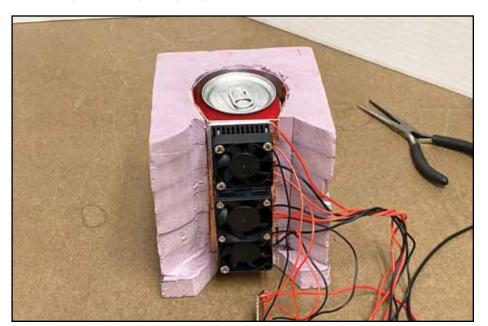
The students are given three weeks to create their marble sorter, which may seem like a long time. However, the students use every minute they have available to perfect their machine. And there are several prototypes, "Failure is encouraged here; we learn from it," explains teacher Ryan Johnson.

Principles of Engineering is one of five year-long engineering courses available to students of West Bend East and West High Schools. The overall goal of the Engineering Program at

the high schools is to expose students to as many careers as possible.

The program begins with Introduction to Engineering Design. In this class students use a problem-solving model to improve existing products and invent new ones. They learn how to use Autodesk Inventor and Autodesk Fusion computer-aided design software, which help them to analyze potential solutions and communicate those solutions to others. Completion of this class gives them the foundation for the other engineering classes.

The East and West High Schools Engineering Program covers many of the basic concepts within the engineering field including careers, programming, robotics, automation, drafting, and physics. It covers various technology systems and manufacturing processes and introduces students to a wide variety of careers in engineering and technology fields. They will learn firsthand how engineers and technicians use math, science, and technology in an engineering problem-solving process to benefit people.



The other classes in the program include Civil Engineering and Architecture, Digital Electronics, and Engineering Design and Development. The program has grown since it was implemented in 2007. In the first year, there were three sections and now there are eight.

Many of the students who take the capstone class, Engineering Design and Development, aspire to a career in engineering. The class features a year-long project. The students brainstorm ideas for their project by discussing a problem they have in their daily lives or their family's lives. As Johnson says, "We have to define a problem before we can solve a problem." Students are paired up through their similar interests. Together, they work on the project, which culminates in a presentation to judges and families. The highest scores go to the project groups who document and communicate their project best.

One of the highest scores ever was for soccer socks meant to hold shin guards in place. Named Lock Socks, the students worked with local experts and found a company to create a prototype. Other projects have created tools to help prevent rear end collisions, remove snow and ice easily from cars, and a cart to hold a large number of laptop computers without getting the power cords tangled.

Students at West Bend East and West High Schools have a wide variety of options to explore potential careers during high school, with the Engineering Program providing a clear view of the many exciting careers in

west-bend.k12.wi.us

Bringing Space Exploration to the Schools



The unique STEM Shuttle has been visiting schools throughout Wisconsin for the past 18 years. A variety of hands-on workstations related to STEM and space exploration, along with 2 veteran teachers, greet the 10 students per session who will be participating in the activities. There can be up to 5 sessions a day.

The STEM Shuttle is designed for grades 4 through 8. The hands-on activities and instructions are adjusted for the different grades and learning levels.

From day one, the most popular activity for the students has been the robotic arm. Students work with their partners to capture a satellite and return it to the payload bay of the shuttle for repairs. Yes, many of today's students will probably travel in space, or be employed to design structures to be built there.

That's why there is a strong emphasis

on engineering, at the upper elementary and middle school levels, on board the shuttle. Constructing an arch and working on the balancing beam are two more of the favorite workstations on the shuttle. And we can't forget to mention the Ozone Layer station. In fact, if you ask 5 students what activity they enjoyed most, you will likely get 5 different

If you have the opportunity to do so, please visit www.stemshuttle.com and take a peek at the students working at the various workstations. You will also find on the home page some feedback we have received from teachers and administrators.

If you are interested in bringing the STEM Shuttle to your school or event, or have questions, please email stemshuttle@gmail.com.



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CTE Program Highlights in the Rice Lake Area School District

Career and Technical Education at Rice Lake offers a variety of opportunities for students. Here's a brief look at the career pathways students are being introduced to at Rice Lake.

Agriculture

The Agriculture program at Rice Lake is fortunate to have access to the "River Doc" Nature Conservancy which was generously donated to our district. This conservancy includes a mature hardwood forest, a stream, lakefront, grassland, and an agricultural field. This has allowed our students to gain real life and handson experiences in a variety of courses and develop their skills. Students in our Forestry course had practical experiences identifying tree species, measuring the volume of lumber, determining the stocking density of the forest, and they developed a potential plan for management decisions of this forest. Students in Natural Resources have units focusing on protecting our



soils and water. They have done labs determining soil types, horizons, nutrient levels, and they have learned about erosion prevention methods to protect our waterways. Our Wildlife Management course has also done several projects identifying habitat types, wildlife, and even has a Trail Camera from the Wisconsin DNR Snapshot program. The River Doc Nature Conservancy is used by all levels of students 4K-12 in the district, and we are fortunate to have such a unique resource as a part of our district.

Business

The Rice Lake High School Business Education program continues to promote college and career readiness. The department has partnered with a local technical college to offer 21 credits of dual credit courses. The classes include Accounting, Law, Management and several others. Students in these classes develop real world skills while building the confidence to be successful in college and beyond. In addition to the partnership





with a local college, Rice Lake High School has a dynamic internship program. Each term students receive on-site experiences with many of the premier employers in the area. There are 78 students scheduled to have internship experiences this year through a partnership with more than 63 local employers.

Family and Consumer Education

The students in the Family and Consumer Sciences program are always wanting to learn and connect with the community. Projects that students have created include hats and mittens for local children, dresses for children around the world, and most recently the pillow project. This project was completed by the Hobbies for Life class, where students learn many different skills with the hope of developing a new hobby that they can take with them for the rest of their lives. Students at the elementary school level created pictures of animals/ creatures that the students in Hobbies for Life class brought to life with their



sewing skills. Each child was able to receive a stuffed animal/creature that was created by a high school student, from the drawings that they had made.

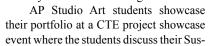
Tech Ed

Our construction pathway is growing and the things we are building are becoming more and more complex. This was a 16x32 deer hunting cabin with a loft that our Construction Framing 1 class completed in spring of 2023. The cabin was built on site and then hauled to its final destination. As we have started building these bigger and more complex structures, more and more students are interested in the program, and



our class size and number of sections are growing. We also are getting more community involvement as well as compliments from people driving or walking by. This makes the students feel proud of their work and take more pride in the class.

High School Art students were chosen to showcase their three-dimensional artwork at Arts in Hand Gallery in Spooner, WI during the month of June. Braden Thomas and Joshua Nelson, both recent graduates, shared some of the amazing pieces they created during their senior year at Rice Lake High School.





tained Investigation with community members. The artists have an opportunity to explain an underlying connection between their pieces whether through subject or mediums. This offers the AP Students a chance to communicate their ideas and allows them to formulate thoughts for the writing component of the portfolio submission.





New Richmond High School's Blueprints to a Successful Future



School District of New Richmond

New Richmond High School's Building Construction class is not just a course, it's a transformative journey for students passionate about the construction industry. Spanning two hours daily throughout the entire academic year, this hands-on program offers a comprehensive curriculum, real-world projects, industry partnerships, and valuable life-long skills

To ensure students are well-prepared for the challenges of the construction field, the Building Construction class requires completion of prerequisite courses such as Manufacturing and Design, Wood Techniques, and Cabinet and Furniture Making. These foundational courses set the stage for a rigorous curriculum covering a diverse range of topics. "The course is good for all students because someday everyone is going to either own a home or be renting a home, and should know how to troubleshoot and repair things when they go wrong," said Technology Education Instructor, Jeremy Vogler.

From construction materials, hand tools, and power tools, to job safety, working conditions, building design, print reading, outdoor

slab construction, and more, the curriculum is a robust exploration of the construction industry. Students learn the importance of project mapping, guidelines, obeying building codes, and conducting ongoing inspections. The class instills a culture of safety and quality in every project.

"Within this course, we are teaching students everything from the foundation to building construction industry, and the biggest thing is safety," said Vogler. "It's important to know how to use the tools and be safe using them, and they are getting the hands-on experience that they need through this class."

One hallmark of the Building Construction class is its commitment to hands-on learning. Students actively engage in constructing storage sheds, outdoor classrooms, bridges, and various projects within the District. "Hands-on experience is very important because you can identify what the materials are, what the different saws are, and the proper way to use them," said NRHS Junior, Chance Perry.

Recent projects showcase the diversity of their skills: constructing the musical set, crafting dividers for Paperjack Elementary School, building benches, a dog house, a utility trailer floor, and stairs. These projects represent skill-building lab activities that bridge the gap between theory and practical application.

One notable partnership is with Countryside Plumbing and Heating. Beyond providing information and insights, this partnership involves tangible support through equipment donations which enriches students' learning experiences. These connections with industry professionals are invaluable, offering students a network and potential pathways for their future careers.

"I am graduating a year early and I will be leaving for the Marine Corps as a Combat Engineer in June," said Perry. "As a Combat Engineer, I will be designing where people live overseas and building it. This class gives you all of the experience you need to build everything from the ground up with limited resources."

At the heart of the Building Construction class lies the motivation for students: the ability to turn theoretical knowledge into tangible, real-world structures. The class operates as a cohesive team, using blueprints to guide them through the process of construction.

The benefits of the Building Construction class extend far beyond the classroom. The course equips students with life-long skills essential for homeownership and maintenance. The class serves as a practical gateway to higher education and, eventually, successful careers in the construction industry. "This course is preparing me so that I can eventually help my dad by working for his business," said NRHS Junior, Brandon Hiltner. "I'm just getting better by learning the techniques Mr. Vogler is teaching me."

The hands-on nature of the course is pivotal. It allows students not only to learn essential skills but also to construct functional items from paper to a finished product. This approach goes beyond traditional education, serving as a foundation for potential careers in construction. The Building Construction class at NRHS is a pathway to building success, one project at a time.

newrichmond.k12.wi.us







XXX A Focus on Creating Student Achievement at Kaukauna High School



Craig Sackmann Technology and Engineering Instructor Kaukauna High School

Kaukauna High School's Technology & Engineering Department has seen strong student enrollment over the years. Kaukauna High School houses 1280 ninth through twelfth grade students; 459 of them are currently enrolled in a technology education class.

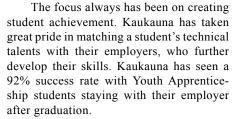
The high school offers 28 different TAE courses, 13 of those are technical college dual-credit courses. Kaukauna offers entrylevel TAE courses that allow students to explore technology concepts and build to lab-based, skill-specific courses.

Five full-time instructors offer courses in Automotive, Woodworking, Machining, Welding, AutoCAD, Electronics, and Engineering Principles. The variety of courses are 1 or 2 trimesters in length, allowing students to explore the different pathways.

Because of its reputation and demand from area businesses, the Technology & Engineering classes offered to students have become an important part of the culture at KHS.

Part of the success of the program has been the lab-based projects that are tied to real life applications, giving students solid fundamental skills. The STEM model has been department's philosophy, offering students high-quality instruction that allow students the greatest chances for success. This model empowers students to be successful post-graduation in that it holds students accountable for understanding the content. The curriculum exposes students to content-related literacy and math in every course.

Youth Apprenticeship numbers this year are 41 placements specific to TAE, and 33 additional CTE students for the district. All Youth Apprenticeship students are currently taking at least one dual-credit course.



The rigorous classroom content has directly impacted the Youth Apprenticeship numbers by maintaining a consistent number of student applicants for local businesses. Working with local business that have been involved with the Youth Apprenticeship program allows the TAE instructors to stay up-to-date with industry standards. Students succeeding in the work place, has strengthened the relationship with local businesses, providing instructors with valuable insight, donations, and supplies that expand projects to enhance the curriculum.





KHS's TAE department has a seen a number of upgrades to their labs to offer state-of-the-art facilities. Some of the upgrades including digital read out lathes, as well as Haas and Mazak Vertical CNC machines in the Machining lab. SawStop table saws, a CNC, and laser engraver are high tech additions in the Woodworking lab. Automotive has added a digital tire changer & amp; balancer and top of the line vehicle hoists. Welding has added the latest multi-process light industrial welding machines. Teaching the students to use the equipment gives them the hands-on learning that gives them an advantage entering the work force.

Both individual and small group projects give the students a balanced approach in problem solving. While the emphasis is for students to engage in lab projects, students are also offered lessons on soft skills to round out their education. The Technology & Engineering numbers have prospered because of the support from administration and the local community who understand the value of technology education and the role it plays for the Kaukauna Area School District.





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Each camp demonstrates how STEM fields intersect with athletics, fine arts, and other disciplines. Learn more and register at **uwplatt.edu/stem-power**. Check back as more programs will be added.

STEM at Bat • April 5–6 Grades 8–12

Computer Games Programming • June 24–28 Grades 9–12

Strength in Numbers • July 15–17 Grades 9–12

Cyber Defense • August 12–16 Grades 9–12

Bellin Health Sports Medicine Partners with Valders Area School District and Ashwaubenon School District



Late last summer, Bellin Health Sports Medicine announced partnerships with Valders Area School District and Ashwaubenon School District to deliver top-tier sports medicine services to the districts' studentathletes, faculty and staff. These partnerships, which went into effect July 1, underscore the commitment of all organizations to the health and well-being of their communities and throughout the region.

Valders Area School District

As part of this alliance, Bellin's highly skilled athletic trainers will be present during practices and games to ensure the safety and well-being of student-athletes. Students requiring specialized care will have direct and convenient access to Bellin Health Titletown Sports Medicine & Orthopedics.

"We are thrilled to join forces with Valders Area School District to provide elite sports medicine services to their student-athletes," said Mark Husen, Bellin Health Team Facilitator for Athletic Training Business and Growth Development. "This collaboration strengthens the support available to the student-athletes, enabling them to overcome challenges, reach their full potential and compete at the highest level. We look forward to implementing our evidence-based, athlete-focused approach to promote long-term athletic success and well-being within the Valders community."

Bellin Health's athletic trainers will work closely with the district's athletic programs, coaches and administrators to ensure that student-athletes receive optimal care and treatment. Guidance and support regarding injury prevention, conditioning, nutrition and sports psychology will also be provided.

"It has been an absolute pleasure partnering and working with Bellin," said Kelly Isselmann, Valders High School Athletics Director. "I appreciate their professional manner in all that they do and provide. I continue to be impressed with our athletic trainer, Hayley Reinke. Her precise, detailed communication with student-athletes and parents has been outstanding. I am extremely pleased with Bellin and could not be happier with their services."

www.valders.k12.wi.us

Ashwaubenon School District

Through this valuable partnership, Bellin Health will deliver comprehensive athletic training and sports medicine services to all students participating in the district's athletics programs. They will also offer support and guidance on issues such as injury prevention, conditioning, nutrition and sports psychology.

"We are delighted to work with the Ashwaubenon School District to provide high-quality care to their student-athletes and support staff," said Sports Medicine & Orthopedics Outreach Programs Director Phil Schaible. "We appreciate the importance of sports in our community, and we are proud to play our part in keeping these athletes safe and healthy. The Ashwaubenon School District has a rich history of success and tradition, and we are thrilled to join forces with another pillar of this community."

Bellin will have dedicated athletic trainers on site to guarantee the safety and well-being of the student-athletes during practices and games, providing immediate care and attention for any injuries or emergencies that may occur. Athletes in need of elevated care

will receive prompt and easy access to Bellin's expert team at Bellin Health Titletown Sports Medicine & Orthopedics.

"We are excited to partner with Bellin Health to provide our students with access to top-notch services and care," said Nick Senger, Ashwaubenon High School Activities Director and Associate Principle. "Our student-athletes will be in the best hands when injuries occur; and as importantly, have opportunities to learn about the psychology of sport, nutritional benefits and strength and conditioning programming to maximize their potential. We look forward to working with Bellin to enhance and strengthen our athletic programs. The reputation of Bellin Health as an organization partnering with schools in our communities is of the highest regard."

In addition to the current services, the partnership between Bellin Health and the

Ashwaubenon School District will expand to include strength and conditioning services, allowing student-athletes to further optimize their training and performance. This impending addition will provide an opportunity for student-athletes to train under the guidance of certified strength and conditioning specialists, helping them reach their full potential while reducing the risk of injuries.



To learn more about Bellin Health's sports medicine and orthopedic services, please visit bellin.org/titletown.

Nurse Practitioner — A Stand-Out Career



In its scorecard, U.S. News & World Report ranked nurse practitioners high for future growth, awarding the advanced-practice nursing profession a 9.9 out of 10.

The near-perfect score for future growth draws on the Bureau of Labor Statistics' (BLS') employment growth projections. NP jobs are projected to grow 45% from 2022 to 2032, much faster than average.

The nurse practitioner field is projected to add an estimated 118,600 additional jobs by 2032, higher than any other healthcare job on the 2024 list except one. (Registered nurses will add 177,400 jobs, earning the No. 10 on the list. However, due to the

higher employment numbers, RN jobs are projected to grow 6% from 2022-2023.)

NPs also stand out because of their high median salary. In May 2022, the median annual pay for NPs was \$121,610, according to BLS data. As U.S. News noted, the field has a low 0.6% unemployment rate.

High demand and six-figure median salaries landed NPs at the top of the list of the best healthcare jobs for 2024. They also ranked #1 for the best STEM jobs and the best jobs overall.

Source-Nurse journal.org

Area Districts Collaborate With Bellin College to Offer Healthcare Career Pathway

Three Green Bay-area school districts have collaborated with Bellin College to offer their high school students new curriculum that leads to a career pathway in healthcare. Students from the Luxemburg-Casco, Kewaunee and Denmark districts can participate in a pathway into the Bellin College Healthcare Academy.

Participating students can earn up to 42 college credits while in high school, allowing for both career exploration and the opportunity to get a leg-up on their post-secondary educa-

"By the three neighboring districts coming together, we are able to offer our students more coursework choices as they select career pathways. We already are seeing strong interest among our students in these classes," says Mike Snowberry, director of learning services for the Luxemburg-Casco School

"The Bellin College Healthcare Academy is a partnership that allows us to create 'reallife' career and academic experiences for Kewaunee High School students interested in the healthcare field," says Kewaunee School District Superintendent Scott Fritz. "College is an expensive career exploration program, so our hope is to create as many opportunities for our students to experience career pathway opportunities while still in high school.'



"The real importance of participating in the Bellin College Healthcare Academy is to fulfill the mission of the Denmark School District, which is to provide the highest level of educational programming to ensure student success within school and beyond," says School District of Denmark Administrator Luke Goral. "With the current, exceptional job market and the ever-increasing cost of post-secondary education, taking advantage of post-secondary opportunities and business partnerships, combined with work-based curriculum, the Bellin College Healthcare Academy will give our students an extra advantage after graduating from high school."

Students who complete the Bellin College Healthcare Academy coursework while in high school have the potential to receive a bachelor's degree in nursing at Bellin after only two additional years of post-secondary study.

Initial exploratory coursework will rotate between the three participating high schools, offering students the opportunity to affirm their interest in the healthcare field through study and job shadow opportunities. These classes include Introduction to Healthcare, Medical Terminology, Customer Service in Healthcare, Health Communication and Nursing Assistant.

Students then apply and interview for admittance to the Bellin College Healthcare

Academy. Once accepted they begin upperlevel coursework, online and in-person at the Bellin campus. Paid internship opportunities also are available to students from this point

Ultimately, Bellin College Healthcare Academy students will be well positioned for any of the Bachelor of Science programs at Bellin College.

"We applaud Bellin College, along with the Kewaunee and Denmark school districts, for their collaborative efforts to bring this new partnership forward in a rather short time period," said Snowberry. "

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Bellin College

Congratulations! 57 Wisconsin Teachers Earn National Board Certification

Established in 1987, the National Board for Professional Teaching Standards is an independent, nonprofit organization working to advance accomplished teaching for all students.

The NBPTS certificate measures a teacher's practice against high and rigorous standards. The process is an extensive series of performance-based assessments that includes teaching portfolios, student work samples, videos and thorough analyses of the candidates' classroom teaching and student learning. Teachers also complete a series of written exercises that probe the depth of their subject-matter knowledge, as well as their understanding of how to teach those subjects to their students.

National Board certification is voluntary and open to all educators who have a baccalaureate degree and three years of classroom experience in either a public or private school.

Advantages for Wisconsin Educators

The NBPTS certificate compliments, but does not replace, Wisconsin state licensure. It is a professional certificate used to obtain a lifetime master educator license in the corresponding area and level. In addition, Wisconsin educators who received NBPTS certification can:



- Obtain reimbursement for costs of up to \$2,000 personally incurred to achieve certification.
- Receive annual grants of \$2,500 or \$5,000 for the remaining duration of the NBPTS certificate.

Additional information about the National Board for Professional Teaching Standards can be found online at www.nbpts.org.

Additional information about the National Board for Professional Teaching Standards/Wisconsin can be found online at https://dpi.wi.gov/licensing/apply-educator-license/nbpts

Hats off to these educators!

Rebecca Abler

Hamilton School District
Sussex, Wisconsin
Health Education/Early Adolescence Through
Young Adulthood

Kimberly Alizadeh Ashrafi

Sun Prairie Area School District Sun Prairie, Wisconsin Generalist/Early Childhood

Hyrum Barker

New Richmond School District
New Richmond, Wisconsin
Music/Early Adolescence Through Young
Adulthood

Zachary Bartsch

Prairie Farm School District
Prairie Farm, Wisconsin
Music/Early Adolescence Through Young
Adulthood

Amy Bass

School District of Reedsburg Reedsburg, Wisconsin Generalist/Middle Childhood

Kayla Beil

Nekoosa School District Nekoosa, Wisconsin Social Studies-History/Early Adolescence

Helissa Bell

Chippewa Falls Area Unified School District Chippewa Falls, Wisconsin Music/Early and Middle Childhood

Michele Bergeron

Chippewa Falls Area Unified School District Chippewa Falls, Wisconsin World Languages/Early Adolescence Through Young Adulthood

Resa Beversdorf

Kaukauna Area School District
Kaukauna, Wisconsin
Literacy: Reading-Language Arts/Early and
Middle Childhood

Lindsey Bubnich

Tomah Area School District
Tomah, Wisconsin
Literacy: Reading-Language Arts/Early and
Middle Childhood

Jay Bullock

Milwaukee Public Schools
Milwaukee, Wisconsin
English Language Arts/Adolescence and
Young Adulthood

Shawn Burns

Germantown School District
Colgate, Wisconsin
Physical Education/Early and Middle
Childhood

Emily Chittick

Milwaukee Public Schools
Milwaukee, Wisconsin
Science/Adolescence and Young Adulthood

Kristen Cohen

Racine, Wisconsin Literacy: Reading-Language Arts/Early and Middle Childhood

Racine Unified School District

Cheryl Esser

Nekoosa School District
Nekoosa, Wisconsin
Exceptional Needs Specialist/Early
Childhood Through Young Adulthood

Jonathan Etter

Wauwatosa School District
Wauwatosa, Wisconsin
English Language Arts/Adolescence and
Young Adulthood

Amy Felcyn

Mount Horeb Area School District

Mount Horeb, Wisconsin

Science/Adolescence and Young Adulthood

Lucy Fisher

Wisconsin
Physical Education/Early and Middle
Childhood

West De Pere School District

Sue Guenther

Gale-Ettrick-Trempealeau School District Ettrick, Wisconsin Generalist/Middle Childhood

Dan Hansen

Fort Atkinson School District
Fort Atkinson, Wisconsin
English Language Arts/Adolescence and
Young Adulthood

Stephen Hilger

Oshkosh Area School District Oshkosh, Wisconsin Generalist/Middle Childhood

Laura Hillman

Our Redeemer Lutheran School Delavan, Wisconsin Generalist/Middle Childhood

Allison Houzner

Hillsboro School District Hillsboro, Wisconsin Generalist/Early Childhood

Amanda Jensen

Holmen School District
Holmen, Wisconsin
School Counseling/Early Childhood Through
Young Adulthood

Mollie Jones

Oconto Falls Public Schools
Oconto Falls, Wisconsin
English Language Arts/Adolescence and
Young Adulthood

Nathali Jones

Wisconsin Rapids School District
Wisconsin Rapids, Wisconsin
Physical Education/Early Adolescence
Through Young Adulthood

Tori Joosten

Nekoosa School District Nekoosa, Wisconsin Mathematics/Early Adolescence

Anthony Jordan

Franklin Public School District Franklin, Wisconsin Mathematics/Early Adolescence

Molly Kaminsky

Elmbrook School District Brookfield, Wisconsin Generalist/Early Childhood

Sarah Lawton

Nekoosa School District
Nekoosa, Wisconsin
English as a New Language/Early and Middle
Childhood

Tanya Lohr

West Bend School District
West Bend, Wisconsin
Social Studies-History/Adolescence and
Young Adulthood

Stephanie Menges

Two Rivers Public School District
Two Rivers, Wisconsin
Literacy: Reading-Language Arts/Early and
Middle Childhood

Elizabeth Meyer

Sauk-Prairie School District
Prairie Du Sac, Wisconsin
Music/Early and Middle Childhood

Gregory Mielke

West Bend School District
West Bend, Wisconsin
English Language Arts/Adolescence and
Young Adulthood

Kayla Marie Moffatt

Elmbrook School District Brookfield, Wisconsin Generalist/Early Childhood



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or visit: go.wisc.edu/educatorwi

National Board Certified Teachers Continued from Page 18

Megan Moselev

Milwaukee Public Schools
Milwaukee, Wisconsin
Exceptional Needs Specialist/Early
Childhood Through Young Adulthood

Abigail Muras

Mount Horeb Area School District

Mount Horeb, Wisconsin

Literacy: Reading-Language Arts/Early and

Middle Childhood

Alicia Obermann

Arrowhead Union High School District
Hartland, Wisconsin
Mathematics/Adolescence and Young
Adulthood

Hannah Peterson

School District of Whitefish Bay Whitefish Bay, Wisconsin Social Studies-History/Adolescence and Young Adulthood

Christopher Powers

Stoughton Area School District
Stoughton, Wisconsin
Music/Early and Middle Childhood

Laura Price

Elmbrook School District
Brookfield, Wisconsin
Science/Adolescence and Young Adulthood

Kimberly Rice

Eau Claire Area School District
Eau Claire, Wisconsin
Literacy: Reading-Language Arts/Early and
Middle Childhood

Dianna Rogers Wells

Verona Area School District
Verona, Wisconsin
World Languages/Early Adolescence Through
Young Adulthood

John Schad

Kohler School District Kohler, Wisconsin

English Language Arts/Early Adolescence

Jordan Sisson

Wausau School District
Wausau, Wisconsin
Mathematics/Early Adolescence

Stephanie Spang-Magee

Oconto Falls Public Schools
Oconto Falls, Wisconsin
English Language Arts/Adolescence and
Young Adulthood

Catherine Swanson

South Milwaukee School District
Milwaukee, Wisconsin
English Language Arts/Adolescence and
Young Adulthood

Christopher Swenson

Elmbrook School District
Brookfield, Wisconsin
Music/Early and Middle Childhood

Elizabeth Vander Heiden

Elmbrook School District
Brookfield, Wisconsin
English As a New Language/Early and
Middle Childhood

Michelle Volk

Green Bay Area Public Sch District
Green Bay, Wisconsin
Career and Technical Education/Early
Adolescence Through Young Adulthood

Sarah Wallace

Kickapoo Area Schools Viola, Wisconsin English Language Arts/Adolescence and Young Adulthood

James Ward

School District of Greenfield
Greenfield, Wisconsin
Social Studies-History/Adolescence and
Young Adulthood

Keith Wartzenluft

Racine Unified School District
Racine, Wisconsin
Career and Technical Education/Early
Adolescence Through Young Adulthood

Michael Weidner

Nicolet Union High School District Glendale, Wisconsin Mathematics/Adolescence and Young Adulthood

Brooke Wells

Kaukauna Area School District Kaukauna, Wisconsin Physical Education/Early and Middle Childhood

Katie Wilsmann

Two Rivers Public School District
Two Rivers, Wisconsin
School Counseling/Early Childhood Through
Young Adulthood

Kimberly Zielinski

Platteville School District
Platteville, Wisconsin
Literacy: Reading-Language Arts/Early and
Middle Childhood

The University of Wisconsin-Madison Empowers Educators in the Classroom and Beyond



Genessi Bryant (right), who currently teaches third grade at Madison's Huegel Elementary, is enrolled in the Wisconsin Idea Principal Preparation program. As part of this work, Bryant spends time shadowing Huegel Principal Kristi Kloos. (PHOTO: Sarah Maughan/UW-Madison School of Education)

From staffing shortages to growing concerns about student mental health, the University of Wisconsin–Madison School of Education recognizes the challenges K-12 schools are facing and is helping find solutions to tough problems.

Many know about our highly ranked teacher education programs, which prepare new educators to foster high achievement in the classroom.

In addition, we have other innovative pro-

grams — many fully online — that equip experienced educators with the knowledge and skills to become leaders who can improve K-12 education both in and beyond the classroom.

Here are some examples of how our state's flagship institution is supporting educators and making a difference for all students.

Harnessing data to answer tough questions

Our online MS in Educational Psychology: Learning Analytics

program prepares students to harness the power of data to tackle a broad range of educational challenges. Graduates are able to use data to help improve individual student learning, raise graduation rates, and address equity gaps. "Fundamentally, we're not just creating number-crunchers," says David Williamson Shaffer, the faculty director of the program. "We're teaching educators how to use powerful new tools to

make a meaningful difference in students' lives."

Empowering future school leaders to make a difference

Our 15-month Wisconsin Idea Principal Preparation (WIPP) master's degree program meets online on weekends and during the summer. Enrolling in cohorts, participants learn from leading scholars in the field. "Tailored for working educators, WIPP affords easy access to a top-tier, reputable educational leadership program designed to equip aspiring leaders with the knowledge and skills to tackle the complex challenges in K-12 education," says Tina Salzman, the program's director. Upon graduation, students earn the credentials to pursue a principal license in Wisconsin.

Cultivating dynamic sports leaders

The online Master's in Sports Leadership (MSL) program draws from UW–Madison's world-leading academic and athletic resources to prepare dynamic sports leaders for positions across diverse settings in K-12 schools, colleges and universities, and beyond. Peter Miller, the program's faculty director, underscores the importance of quality leadership in sports, as coaches often build relationships with students across their high school years. "That can have a significant influence on a student," he says. "The MSL is designed to produce effective sports leaders who can help to ensure that more people

will have great and impactful experiences."

Equipping educators with tools to inspire students

In two years, teaching professionals can complete the online MS in Educational Psychology for Educators (MSPE) degree program — including an instructional coaching certificate — in one of the leading Departments of Educational Psychology in the nation. The program draws a diverse mix of teachers and education professionals who are motivated to learn and apply the best practices in education to their work in classrooms, schools, and districts. MSPE graduates are equipped with tools and strategies to address the individual needs of students within K-12 settings.

Supporting school-based mental health professionals

UW–Madison researchers recently received a four-year, \$10.4 million federal contract to launch a national center to expand and improve the country's school-based mental health workforce. The Mental Health Evaluation, Training, Research, and Innovation Center for Schools (METRICS) will help schools better serve students — who are increasingly reporting mental health concerns — by providing tools to strengthen the pipeline and training of mental health professionals.

Learn more: education.wisc.edu



Way to Go Kettle Moraine Schools!

National History Day Awards the Patricia Behring Teacher of the Year Award to Kettle Moraine Teacher

Last summer, National History Day® (NHD) awarded Mr. Terry Kaldhusdal at Kettle Moraine Middle School in Dousman, Wisconsin, the 2023 Patricia Behring Teacher of the Year for the Junior Division. Each of the 58 National History Day Affiliates may nominate one high school and one middle school teacher for this award.

This award comes with a \$10,000 cash prize in addition to the prestige of winning an internationally competitive award that recognizes social studies educators who demonstrate creative teaching methods that engage students in history and help them make exciting discoveries about the past.

Selected by a committee of experienced teachers and historians, Mr. Kaldhusdal was recognized for his passion for the NHD program by the Wisconsin History Day Affiliate Coordinator Jessica Schmitz:

"Terry is the biggest champion for NHD, and he has such excitement for the process because he believes it challenges his students. His students are encouraged to explore the history they are interested in and understand

that history is messy. He is incredibly proud of every victory his students have, whether they are finding a resource, completing their project, or winning an award, and he sees their true reward as the critical skills they learn for

"Mr. Kaldhusdal is a 30-year veteran teacher, author, and filmmaker. He shows his passion in the classroom and is a leader in the field," shares NHD Executive Director Cathy Gorn. "I am very proud to award Terry Kaldhusdal the Patricia Behring Award this year."

About National History Day (NHD)

NHD is a non-profit organization based in College Park, Maryland, that seeks to improve the teaching and learning of history. The National History Day Contest was established in 1974 and currently engages more than half a million students every year in conducting original research on historical topics of interest. Students present their research as a documentary, exhibit, paper, performance,

or website. Projects compete first at the local and affiliate levels, where the top entries are invited to the National Contest at the University of Maryland at College Park. NHD is sponsored in part by HISTORY®, the National Endowment for the Humanities, the National Park Service, The Better Angels Society, and the Diana Davis Spencer Foundation. For more information, visit nhd.org.

About National History Day in Wisconsin

History Day in Wisconsin is open to middle and high school students statewide. The program is organized by the Wisconsin Historical Society, with support from the Wisconsin Historical Foundation, NHDinWI offers program support for teachers and students as well as student events. For more information, visit wisconsinhistory.org/nhd. Courtesy of National History Day



NATIONAL HISTORY DAY 2024

Turning Points



Stellmacher Named WASBO School Business Manager of the Year



Kettle Moraine School District

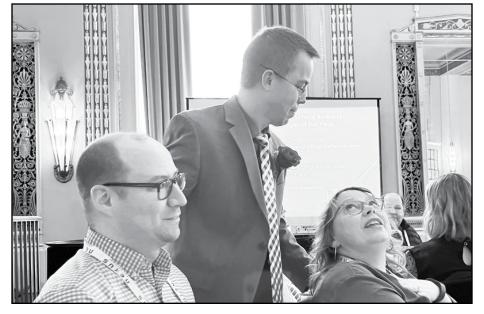
Kettle Moraine School District CFO John Stellmacher was awarded Wisconsin Association of School Business Officials (WASBO) 2024 School Business Manager of the Year today at their State Convention. The ceremony, held in Milwaukee, drew school

superintendents and business managers from across the state.

A former WASBO President, and critical advocate for educational funding, Stellmacher has been a leader in Wisconsin education. Stellmacher is a frequent presenter at both WASBO and WASB conferences. He mentors countless business managers and provides instrumental support to the Southeast Wisconsin Schools Alliance (SWSA), advising on fiscal solvency and providing quality education efficiently.

"I think this award is a reflection of the collaborative nature of both our profession and specifically our district," John explained. "As I look back on my nearly 20 year career, I am grateful to be in a position where I can be an advocate for education and for kids. It's been my dream job, and although the financial aspects of my role are the essential function, I always think of myself as representing education first. Any financial decision we're making needs to be viewed through the lens of the student."

"Financial transparency in education is more important now than it's ever been. Statewide, we are having conversations about how Wisconsin prioritizes, or doesn't prioritize, education. Locally, in order to secure the resources we need in education, we are having to lean on taxpayers who are also voters. They



want to know that the district is making good use of the resources we already have. Taxpayers will support quality, but they need to understand and see that vision."

Superintendent Dr. Steve Plum added, "John is a diligent fiscal agent with a kind heart, a perfect combination for effective and efficient business management."

"There's no training manual for this position," John concluded, "but the people who are successful know it is a culmination of a lot of people taking time to mentor you along the way. The work that I've been able to do has only been possible because of the many people who do that work with me."





Milwaukee Italian Immersion School Teacher Wins National Award for her Work at MPS



Milwaukee Public Schools

Previously a teacher of English in Italy, Enrica Fracchia-Miller has been teaching MPS students how to speak Italian since 2014. Her teaching at Milwaukee Italian Immersion School, and her curriculum for her students, impressed the judges of a prestigious national award

Fracchia-Miller is the 2023 winner of the Coccia-Inserra Award for Excellence and Inno-

vation in the Teaching of Italian, which honors a teacher at the K-12 level. She teaches 1st and 2nd grade at Italian Immersion, which is housed in Victory School, 2222 W. Henry Ave.

The award committee reviewed lesson plans from Fracchia-Miller and a video that shows her teaching. The award typically is given to someone who teaches Italian as a second language, but at the immersion school,

Italian is the primary language, Fracchia-Miller noted.

Fracchia-Miller, a native speaker of Italian, has been a teacher for 31 years. The majority of that time was in Italy, teaching English to middle schoolers. "I just transferred my knowledge here," Fracchia-Miller said.

She grew up in a small town in the Italian region of Liguria, moving to the United States 12 years ago. She was studying for a master's

degree in Philadelphia when an MPS teacher emailed her to ask if she would be interested in teaching in Milwaukee.

She was indeed interested, and she was offered the job just three hours after her interview, Fracchia-Miller recalled.

She started teaching 4th grade — not yet at full immersion — and began preparing materials for the next school year. Fracchia-Miller then taught Italian to 5-year-old kindergartners, fully immersing them in the language. She moved with those kindergartners to 1st grade.

Fracchia-Miller worked to develop a curriculum for her students that is easy to use and child friendly but still follows the state's Common Core standards for teaching subjects in English, she said.

Teaching Italian to children that young is a pleasure, Fracchia-Miller said. "Adults want to speak another language without mistakes," and focus on fluency and grammar. With small children, "the most important thing is that they can understand you," and that they can make themselves understood, she said. "It's a lot of fun, I'm telling you."

The immersion students become readers

of Italian first, she noted, and then build their English reading skills in second grade.

Two of Fracchia-Miller's best students are of Iraqi and Mexican heritage. The Iraqi-American student speaks Arabic at home and can switch between the languages with no problem. The Mexican-American student "can compare Spanish and Italian and see that they're very similar," Fracchia-Miller said.

Learning another language, the teacher said, "is an open door" when children grow up and move on to careers.

"You have such a flexibility, a mindset. It can open doors for you at work," she said.

The award comes with a \$5,000 prize. Of that, half is to be used in the classroom, to advance Italian language and culture through curriculum and programming. The other half is to be used for the winning teacher's professional development.

mps.milwaukee.k12. wi.us



Cudahy School District Celebrates Kristy Adams for Winning the Wisconsin NEA Education Support Professional of the Year Award



Clare Canfield Cudahy School District

The Cudahy School District is proud to announce that Kristy Adams, a dedicated

paraprofessional within our district, has been honored with the prestigious Education Support Professional of the Year Award for the state of Wisconsin by the National Education Association (NEA). This esteemed recognition makes her a national nominee for the award, highlighting her exceptional contribution to the field of education.

The NEA Education Support Professional (ESP) of the Year Award is an annual accolade that celebrates the significant impact Education Support Professionals have in schools, communities, and their profession. The award recognizes an individual who not only demonstrates outstanding achievements but also embodies the critical role ESPs play in advancing public education.

Kristy Adams has been an integral part of the Cudahy School District for 15 years. Her journey with the district is deeply rooted, as she is not only a graduate of Cudahy High

School but also a resident of the Cudahy community. Her commitment to education is further exemplified by her children, who are both graduates and current students of Cudahy schools.

Throughout her career, Kristy has consistently demonstrated excellence in her role and an unwavering dedication to the students and staff of Cudahy School District. Her achievements are a testament to her passion for education and her belief in the power of community involvement in shaping successful learning environments.

"We are incredibly proud of Kristy Adams and her remarkable accomplishments. This award is a reflection of her hard work, dedication, and the positive impact she has made in our district," said Dr. Tina Owen-Moore, Superintendent of Cudahy School District. "Kristy embodies the spirit of community and commitment that we value so highly in our

listrist "

The Cudahy School District extends its heartfelt congratulations to Kristy Adams on this significant achievement. Her recognition as the NEA Education Support Professional of the Year is not only an honor for her but also for the entire Cudahy community.

www.cudahysd.org



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