## SPECIAL DOUBLE ISSUE

#### **Summer 2023**

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**Casimir Pulaski Students Finding** 

**Success in Automotive Pathway** 

## Student-Built House Construction Program In 25th Successful Year



Sheboygan Area School District

Pillar 1 of the Sheboygan Area School District Long Range Plan states: Upon Graduation, all students will be prepared to successfully take the next step in their selfdefined career pathway.

Each year for the last 25 years, Sheboygan Area School District students from both North and South High Schools who are enrolled in Career & Technical Education build a house from the foundation to the interior finishing touches. This unique, innovative opportunity gives students the chance to experience handson work and gain skills, experience, and connections to pursue a career in construction trades.

"It is incredibly important for our schools to prepare students for the future by offering real-world, hands-on learning experiences," said Superintendent Seth Harvatine.

The project kicks off each year with a groundbreaking ceremony where students'

confidence is bolstered by program leaders and the excitement for the upcoming project is palpable. Students, their family members, community members, representatives from the district, local carpenters, and electricians all come together at this ceremony to recognize the hard work about to be underway.

At this year's event, the crisp morning air surrounded those in attendance, an American flag waved in the slight breeze, and a large

table was filled with hard hats and donated gear. Each student in attendance had the opportunity to stand in front of their peers and community members and share why they decided to participate in the program. From the desire to gain hands-on experience in building a house, to getting their foot in the door early for a career in construction or electrical engineering, every student's story was distinctive and personal. Their statements of intent were powerful.

Before any construction work can begin, students enrolled in the district's Project Lead the Way Civil Engineering and Architecture classes design a house plan. The students' plans are evaluated by a group of industry builders and educators, and the top design is chosen to be built the next school year. One of the homes, designed by a student, was then purchased by the parents!

This year's house was designed by South

**Continued on Page 9** 

Milwaukee Public Schools

Can students step out of high school and into lucrative, а indemand career? The answer is yes at Casimir Pulaski High School in Milwaukee, Wisconsin. Students at Pulaski have the option to pursue an automotive program that prepares them to work in auto shops

or car dealerships or to continue their training in technical school.

Pulaski, part of Milwaukee Public Schools, has offered the automotive pathway for more than 30 years, and the program has grown to encompass three complete auto shops with two full-time teachers. By the time they graduate, many students receive ASE certification and most will go on to technical schools.

The high school automotive program is one of the largest in the state of Wisconsin and the only program in the city of Milwaukee. A key feature is certification by the Automotive Service Excellence Educational Foundation (ASE), which sets high program standards, requires instructors to maintain ASE certification, and allows students to earn a credential.

At Pulaski, the pathway begins when students take a survey course. Beginning in the sophomore year, students can enroll in courses such as engine repair, suspension and steering, vehicle diagnosis, and auto servicing. Students



learn to work with tools and technology for use with fuel injection, air induction, exhaust systems, emission controls, and more. ASE standards are followed for all instruction.

Luis Vallejo and Pablo Bras are the automotive teachers at Pulaski. Vallejo is a graduate of Pulaski who spent years working in the industry. His career came full circle when he left his employment and returned to Pulaski to teach. Bras was a Pulaski science teacher who altered his own pathway to teach auto body work.

"Students who enter automotive careers will always have a job," said Vallejo, who has been an automotive teacher at Pulaski for more than 10 years. "When you look at how many cars are on the road—they will all need repair at some point. The automotive industry just keeps getting more exciting as new technology comes along and then we train to work on these new innovations."

#### **Continued on Page 28**

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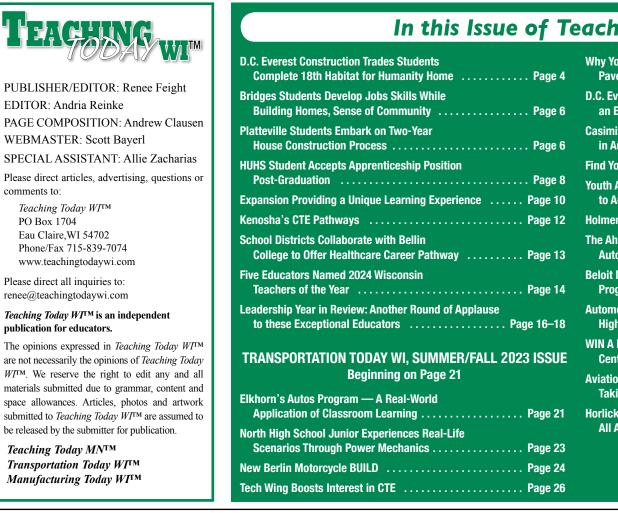
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# D.C. Everest Construction Trades Students Complete 18th Habitat for Humanity Home



D.C. Everest Area School District

In May, D.C. Everest Senior High Construction Trades students celebrated the completion of their 18th Habitat for Humanity home. While at the home's permanent site, they posed with Luke Kramer, Business Representative for the North Central States Regional Council of Carpenters, while holding their "Career Connections" certifications. Students who earn this certification and choose to enter the carpentry union receive hours toward their adult Registered Apprenticeship.

One of the students, Kasey Woolley, became indentured on Tuesday, June 13 during a signing ceremony with Findorff. This ceremony marks a year-plus work-based learning experience with the company. In 2022, Kasey — then a junior at D.C. Everest Senior High — participated in a day-long job shadowing experience with Findorff that covered an array of career paths available within a construction company. As a senior,



she enrolled in the Carpentry Unit with the school's Architecture and Construction career pathway and signed with Findorff as a Youth Apprentice in September 2022. She began her apprenticeship at a jobsite in Plover, Wisconsin and then transitioned to working on the new DCE Administration Building that is being constructed on the grounds near the DCE Senior High. Throughout her apprenticeship she explored numerous trades on Findorff job sites and now looks forward to the official launch of her career in the Carpentry Registered Apprenticeship program.

The D.C. Everest Senior High's partnership with Habitat for Humanity of Wausau has provided numerous benefits for students, the local construction industry, and the community. Students gain one-of-a-kind work experience that can't be duplicated within a classroom while exploring career opportunities and developing relationships with people within the high-demand industry. Local construction companies gain access to a new generation of graduates who are singularly prepared to take on the challenges of the workplace. And families in need have the opportunity to raise their families within a custom-built home, providing a sense of stability that can be a stepping stone to future success.

Over the years, the collaborative partnership between the DCE Senior High and Habitat for Humanity of Wausau has grown and evolved due to expanded student interest and student preparedness. The DCE Senior High's new Tech Ed wing — which mirrors 21st-century advanced manufacturing facilities with its spacious, sunlit interior stocked with state-of-the art technologies, tools and machinery — has drawn more students to courses in the construction field. So has the expanded curriculum, which includes Architectural Design (DE), math, physics, Computer Aided Drafting, Advanced Computer Aided Drafting, Construction, Construction Trades and a series of Wood Manufacturing courses. "All of these factors ensure our students can productively contribute to the Habitat for Humanity mission," notes Aaron Hoffman, DCE Career and Technical Education Coordinator. "Students begin by learning the basic principles related to construction but can progress to more advanced principles thanks to our expanded curriculum. Our new Tech Ed wing also provides them with access to computerintegrated technologies that ensure they are better prepared for a real-world work environment."

Last fall, a dozen Construction Trades students were working on the house, sealing up the house for winter conditions. With the framework for the house completed and the outer walls and roof installed, students focused on interior construction projects — interior walls, electrical, plumbing, insulation, drywall — during the winter months. This year's class included two female students, the second time in recent years when young women have joined the team. "A primary focus of our recent renovations has been to create learning spaces that are welcoming to all learners. Both of these young women are inspiring younger stu-



dents as we continue to expand on this positive trend," added Hoffman.





Local contractors rely on UA 400 trained Apprentices, as well as Youth Apprentices to help man projects in heating, air conditioning, refrigeration, plumbing, piping and mechanical service.

**The Local 400 Youth Apprentice program** gives high school students the opportunity to work in these fields while still in school. Youth apprentices have the opportunity to grow their skill set in hopes of earning an apprenticeship after high school graduation.



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## Bridges Students Develop Jobs Skills While Building Homes, Sense of Community



Students and instructor Brian Frerk stand in front of the house they built at 421 4th Street in Green Bay

#### Green Bay Area Public School District

Eighteen students showed off their hard work at 421 4th St. in Green Bay after months of building a home as a part of the Bridges Construction & Renovation program.

Families, friends and local leaders gathered to tour the home and celebrate the students on May 16. Students in the class represented East, John Dewey Academy of Learning, Preble and West High Schools.

Bridges Construction & Renovation is an educational pathway within the Green Bay Area Public School District.

The Bridges program in partnership with NeighborWorks Green Bay offers students a hands-on, community-based, learning experience in the construction industry while earning high school and college credit.

The program prepares juniors and seniors for employment, future education, and career pathways in architecture, construction, engineering and the military. Upon completion of the one-year Bridges program, students are prepared for an apprenticeship or additional educational opportunities and in-demand careers with high earning potential. Students work with professional contractors to learn about structural design, building safety, blueprint reading, rough and finish construction, modern design and home improvements.

Students also explore the application of carpentry, masonry, home wiring, plumbing and architectural design.

At the celebration, Bridges Instructor Brian Frerk presented students with a toolbelt full of tools and shared each student's future plans.

Many students in the class said they intend to pursue working in the trades after high school. Other students said they were going to take the skills they learned in the course and use them to pursue careers in industries like forestry and the Coast Guard.

Students coming out of the course are career ready, but they are also already making an impact on their community.

President and CEO of NeighborWorks Green Bay, Noel Halvorsen gave thanks to the students for their hard work as they not only built a house, but also a sense of community for the future owner.



"This home will be sold to an owner-occupant who we hope will become an engaged neighbor in this part of the community and be proud of the home that they will live in, that these folks have built," Halvorsen said.

Halvorsen said that addressing housing needs in the city of Green Bay is critical and requires building more housing, but he also said it's about partnerships.

"Part of the way we can address [housing needs] is partnering with Green Bay Area Public Schools and the other fine organizations that are a part of this effort so that we can increase the number of people that are going into construction and the trades," Halvorsen said.

Twenty-four students are already set to enroll in the Bridges Construction & Renovation program for the 2023–2024 school year. Two homes will be built side by side on Day Street on Green Bay's east side.

Ten projects have been completed since the inception of Bridges Construction & Reno-



Toolbelts to be given to students as gifts for their hard work.

vation, with two more projects to be finished on 4th Street and Doty Street when the 2022-2023 school year comes to an end.

Beyond skills building, the program provides an opportunity for students to make a positive impact on their community by building and renovating safe, affordable housing. Learn more about the Bridges Construction & Renovation program at <u>gbaps.org/bridges</u>.



## Platteville Students Embark on Two-Year House Construction Process

#### By Elizabeth Kelsey

Photos by Dave Kettering

Five Platteville High School students stood on a residential street in Platteville on Wednesday morning, gazing down into a massive hole that had been excavated in preparation for construction of a house.

They clambered down to examine the work site from the ground level, investigating places where concrete and other materials from the foundation of a former house had been unearthed by the excavators' work.

"That's a whole brick," said junior Zach McClain, chuckling as he picked up the rectangular block and showed it to Jason Sasse, who teaches construction and engineering classes at the high school.

The students are enrolled in a construction class at the high school. Over the next two school years, the class will partner with local contractors to build a 2,000-square-foot, three-bedroom house on the site, from foundations and framing to electrical and plumbing work.

"This is where they put into practice all the things they've learned in (class)," Sasse said. "We can't emulate something like this at the high school."

As Sasse's students explored the excavated area, the teacher chatted with Bill and Jean Sanders, who live in the house next door and own the lot where the project is taking place.

The building on the lot was destroyed years ago in a fire, and another neighbor briefly purchased the property before the Sanderses bought it. Since then, it has remained a vacant lot.

"Our kids and grandkids had a great time playing here," Jean said.

When the Sanderses were approached by district representatives several years ago about the possibility of using the land for a construction project for high school students, they were eager to get involved.

"We were trying to support their efforts in the vocational and technical courses," Bill said. "It'll be like a two-year, in-house training program."

The couple retains ownership of the land and are funding the building materials, architect's fees, building permits and more. They



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## **HUHS Student Accepts Apprenticeship Position Post-Graduation**



The Hartford Union High School District is proud to recognize and congratulate Youth Apprenticeship student Mitchell Klein who has accepted an apprenticeship position with Associated Builders and Contractors of Wisconsin post-graduation!

"The Youth Apprenticeship program at Hartford Union High School has helped me so much in the past year. Mr.Carr has helped me stay on track with all the requirements and helped me significantly to find my job," said Mitchell. "The Youth Apprenticeship program

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helped me find my career choice while still attending high school."

The Youth Apprenticeship program is a work-based education opportunity that is a structured method of combining classroombased education with related, practical work experience. It provides academic credits for structured job experiences while helping students make the transition to post-high school life/work/education.

**Continued on Page 9** 

### 24th VISION Home Complete

On September 1, 2022, a groundbreaking was held at 1447 Red Oak Drive in Hartford, WI. Hartford Union High School students were about to begin growing their skills in the building trades and design by constructing a new home.

Instructor Mark Murphy said, "The goal is to teach students the total aspect of building a house from designing to budgeting expenses, acquiring a loan, using skills to help with the build, selecting fixtures, landscaping, and finally selling the home.

The project is part of Hartford VISION homes and is the 24th home the Hartford Rotary Foundation Inc. and HUHS have collaborated to build. The goal is to have enough profit from the home's sale to pay off the mortgage (covered by the Hartford Rotary Foundation Inc. up until the sale) and purchase a new residential lot for the 2023–24

Hartford VISION home project. This year's build is a spacious 4



bedroom,  $3\frac{1}{2}$  bath, exposed ranch style home. The garage features a huge storage loft and a kitchen with granite countertops, GE Cafe series appliances and a pantry.

#### For more details about the home:

"Very special New Construction home built in cooperation with professional contractors and the students of Hartford Union High School"

https://www.firstweber.com/realestate/ details/25118702/1447-red-oak-drive-hartford-wi-53027



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## **Student-Built House Construction Program**

In 25th Successful Year Continued from Page 1



High School senior Lucas Jowett.

The House Construction Program is a collaboration between Sheboygan North and South High School.

Starting in August, the house design is built by Sheboygan students from North and South with the instruction coming from Ted Schermetzler. Over the course of the year Ted goes through every home-building process with the students from foundation to finish work. Some jobs require specialty help so experts (electricians, plumbers, HVAC, etc.) are brought in and are partnered with students to show the correct installation process.

Each home is a ranch-style home that is roughly 1750 sq ft,  $2\frac{1}{2}$  baths on the first floor, 3 bedrooms, 2 car garage, open concept, and a semi-finished basement. Each lot built on has different requirements so the home plans may change from year to year.

Once finished the Botany class helps with the landscaping and Housing and Interior Design help with the decor/painting of the home.

Then, with the aid of local realtors or word of mouth, the homes are sold.

All of the homes during the 25 years of building have sold. The funds from every house keep the program going from year to year.

This is truly a community project. Students benefit from working alongside local contractors, carpenters, electricians, and other skilled professionals, who guide and teach them throughout the construction process. A Construction Trades committee made up of representatives from local businesses, organizations, and school staff meets regularly to guide and support the project and the students involved.

The Sheboygan Area School District looks forward to another successful year for this popular program!



#### **South Senior Wins House Design Contest**



Every year since 1998, students from North and South High School's Project Lead the Way Program and Civil Engineering, Architecture, and Advanced Students courses compete in a House Design Contest to design the district's student-built house for the following year.

Students are asked at the beginning of the school year to create a single-story 1750-square-foot home. The house must have three bedrooms, two and a half bathrooms, a two-car garage, as well as an unfinished basement. Students submit their plans, which are then reviewed by Technical Education Teacher Ted Schermetzler and various home construction groups. The group narrows the competition down to the top three finalists, who are invited to attend a luncheon sponsored by the Kiwanis Club, which was held this year at the Sheboygan Senior Community. During this luncheon, the Kiwanis Club awards the winning house designer a check for \$200, and the second and third-place winners receive checks for \$100 each. Congratulations to South High School senior Emma Gosse for winning the contest this year!

Additionally, Maddison Arndt from South High School's House Construction program was chosen among her peers as being vital to the success of the construction project this year and was awarded a set of Milwaukee tools. "Maddison was a vital person on the job site and was an excellent leader amongst her peers," said South High Technical Education Teacher Craig Heeler.



## HUHS Student Accepts Apprenticeship Continued from Page 8

Mitchell went on to say, "I got to get hands-on experience and a taste of the real world. Some of my experiences included wall building and setting, helping with the trusses, trimming, and setting rafters. I am looking most forward to building my skill set and more opportunities through the ABC Apprenticeship.'

Superintendent Jeff Walters shared "Mitchell's success in this place-based experience during high school has provided him a jumpstart to success after high school."

Mitchell started his current position with AM Construction Carpentry as a Youth Apprentice in June of 2022, after completing his junior year at Hartford Union high school.

His supervisor, Mr. Cisco said, "From the very beginning, his effort and demeanor made excellent impressions on his co-workers and mentors at the job site. This attitude was evident from the start of each day, where he consistently showed up early and with a positive attitude, and carried throughout his work, as he followed instructions carefully, addressed challenges with a critical thinking mindset, and took pride in the work he completed. His dedication was further exemplified when, within weeks of starting, he invested in his own set of professional quality tools. Ultimately, because of his willingness to invest in his future and his eagerness to get involved and learn new things, he quickly became an asset on the job site and was offered a position as a registered apprentice."

HUHS Superintendent Jeff Walters also congratulated Mitchell on his success in the

program, and thanked all of the district's community partners for making the program possible.

"Mitchell's success in this place-based experience during high school has provided him a jumpstart to success after high school," said Walters. "We are grateful for all of our industry partners who provide these rich, immersive experiences for our students at Hartford Union High School."



## **Expansion Providing a Unique Learning Experience**



Jill Peters, Marketing and Community Coordinator

Kimberly Area School District

The 2022–2023 school year has been pivotal for the Kimberly High School (KHS) Architectural, Construction and Engineering (ACE) Academy. As the program embarked on its tenth year, it also broke ground on an exciting expansion project. The Kimberly Area School District (KASD) approved the construction of an addition to its current facility after seeing enrollment in Career and Technical Education (CTE) courses more than double in the last ten years. The ACE Academy provides opportunities for students interested in construction-related fields. The school-within-a-school was developed with the goal of introducing students to the variety of career choices within the construction industry and teaching them skills for highdemand fields while they are in high school.

The expansion will allow the district to meet the needs of learners and grow in the specific areas of building and construction, welding, and electrical work. It will also provide current KHS students with a unique learning experience since they will be constructing the expansion. "We don't go to the classroom. We build it," said Steve Masanz, KHS ACE Academy Coordinator. "Students are able to gain firsthand career knowledge to decide which careers best fit their interests, as opposed to simply reading about careers on the internet or watching YouTube videos."

Academy classes are structured around rigorous academic standards that prepare high school graduates to transition either into the workforce or post-secondary education (such as apprenticeship programs, technical college and college). This latest initiative aligns with these standards while ensuring future growth, creating an environment that fosters creativity, hands-on learning and problem-solving skills among its students.

Elective coursework is available in a variety of technology education subjects,

such as electricity or metals, to help students learn more about their options and make connections to career areas that could be a good fit for them. The Youth Apprenticeship component gives students the opportunity to explore careers at local companies. Students also have the potential to be paid while earning course credit through those experiences.

Past graduates have pursued a range of related careers, such as manufacturing and carpentry and pursuing apprenticeships in sheet metal, pipe, and electrical trades. Students have also pursued higher education in a variety of engineering and construction fields.

In addition to technology education courses, the ACE Academy collaborates with other core academic disciplines, like English and Math, to offer hands-on learning that shows a correlation between what they learn at school and their future career.





## Platteville Students Embark on Two-Year House Construction Process Continued from Page 6



were heavily involved with the design of the planned one-story structure, as they might move in once it is completed.

Platteville High School students will provide the labor for much of the construction

process, in tandem with construction companies that contract with the Sanderses.

Sasse said the high school offers a Construction 1 course, where students learn about topics like roofing and foundations and construct a small shed, and a Construction 2 course, which delves into interior work like finishings and cabinetry.

The students who will work on the house project are enrolled in Construction 3, a yearlong course that meets for two hours daily. The school has offered the course in the past, with students completing projects like a pool house and a garage for district vehicles, but this will be the first residential project the class will tackle.

Sasse said a typical construction company could complete this type of project in three to four months, but the high school will extend the project over two school years due to the limited amount of work time the students have per day.

While some parts of the job, such as the major excavation that took place this week, are being completed by construction professionals, the students enrolled in the class each year will work on tasks such as framing the house, setting trusses, sheeting and shingling the roof, installing siding and drywall, and more.

"We want these kids to be equipped to get into whatever specialty trades they want to get into," Sasse said. "... They're going to see every step in this process as it unfolds."

Senior Zac Graham said the class has spent plenty of time this school year learning about the steps that need to be completed before construction begins, including designing the structure, lining up contractors, getting quotes for the cost of services and marking the property for excavation.

"I've learned that there's a lot more that goes into building a house than just digging the foundation," he said.

Current juniors McClain, Gavin Voigts and John Baxter, who all intend to enroll in the class again next year, said they look forward to watching the house take shape.

"This has put in perspective what work in construction could be like, and it's given me thoughts of how I could side a house for a living or shingle a roof for a living," said Baxter. "There's lots of opportunities."

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## 🖉 Kenosha's CTE Pathways



#### Kenosha Unified School District

Situated perfectly between Milwaukee and Chicago along Interstate 94, the Kenosha Unified School District continues to enhance K-12 learning opportunities for all students. Matching the economic growth happening along the Milwaukee to Chicago Interstate 94 corridor, KUSD's Career and Technical Education (CTE) program continues to evolve and grow opportunities reflective of the local economy.

KUSD offers a variety of CTE pathways to middle and high school students that complement core academic subjects in an effort to prepare students for both college and career. Whether a student is interested in automotive, engineering, manufacturing, or any of the other pathways listed below, Kenosha Unified has courses that will support their passion and provide them with a strong foundation of technical knowledge and skills early on in life.

The district's cutting-edge, rigorous and relevant CTE curriculum prepares students for a wide range of high-wage, high-skill and high-demand careers, as well as postsecondary coursework and certifications.

In addition, high school students can earn credits toward graduation while also earning free college credits through courses offered by a nearby technical college. The college courses are taught by KUSD's high school teachers using the same college level textbooks and materials. Courses in business, marketing, culinary, healthcare, and technology education offer students the ability to earn dual credit.

High school students also have an opportunity to receive certifications in a variety of areas, including Certified Nursing Assistant, Snap-on certifications, advanced manufacturing, 3D-printing and computer software certifications. This affords them the opportunity to begin working in a career field immediately after high school without additional training.

In an effort to continuously improve, KUSD recently expanded its offerings in the early childhood and education pathway. Through dual credit courses taught by high school teachers, students are able to earn their Group Child Care Essentials certificate through the same technical college. In addition, students interested in the teaching profession can jumpstart their postsecondary education thanks to the Educator's Rising dual credit program, which was formed in partnership among KUSD and two 4-year colleges.

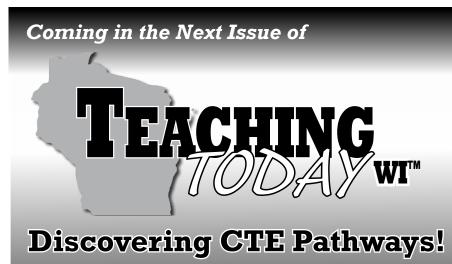
To further support students' desire to learn about possible career paths, KUSD offers the Youth Apprenticeship program that integrates school- and work-based learning to develop their employability and occupational skills as defined by Wisconsin industries. Students are simultaneously enrolled in academic classes to meet high school graduation requirements and are employed and paid by a participating employer under the supervision of a skilled mentor. Youth Apprenticeship participants work a minimum of 450 hours during the calendar year to earn a Certificate of Occupational Proficiency upon completion. CTE pathways provided by KUSD:

- Advanced manufacturing and automation/robotics
  - Apparel, textile and fashion
- Architecture and constructionAutomotive
- Automotive
  - Business management and administration
  - Computer science
- Culinary
- Digital technology
- Early childhood and education
- Health science
  - Interior design
  - Manufacturing
  - Marketing sales and service
  - STEM/engineering/Project Lead the Way

The independent governmental body known as the Kenosha Unified School District was created in 1967 but was built on a foundation of educational excellence established by area schools as early as 1835, a full 13 years before Wisconsin even became a state. Today, Kenosha Unified consists of three high schools (grades 9–12), five middle schools (grades 6–8), 22 elementary schools (4K–5), five charter schools, five choice schools, one specialty school, one Head Start facility and one district office.

www.kusd.edu





An opportunity to highlight and share about the CTE programs in your schools!

#### **Please contact:**

Andria — andria@teachingtodaywi.com 715-360-4875, or Renee — renee@teachingtodaywi.com 715-839-7074

#### Included in this issue, beginning on Page 21



are integrating transportation programs such as automotive and aviation into the classroom!

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## **Careers in Motion — Health**

## School Districts Collaborate with Bellin College to Offer Healthcare Career Pathway

Three Green Bay-area school districts have been collaborating 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 now come together to participate in a pathway into the Bellin College Healthcare Academy.

Bellin College currently offers individual healthcare-focused courses at area high schools, but this is its first full-scale healthcare program. Participating students can earn up to 42 college credits while in high school.

"We are excited about this new partnership with Bellin College and Bellin Health," says Mike Snowberry, director of learning services for the Luxemburg-Casco School District. "By the three neighboring districts coming together, we are able to offer our students more coursework choices as they select career pathways."

"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 postsecondary study. Students essentially will have completed the entire first year of study at Bellin while in high school. The normal degree progression at Bellin is eight semesters over three years, including two summer sessions.

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 forward.

Among the upper-level courses available

to Healthcare Academy students are History of Healthcare, General Chemistry, Developmental Psychology, Medical Ethics, Anatomy and Physiology I and II, Statistics, and Diversity Issues in Healthcare.

"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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## Leadership

## **Five Educators Named 2024 Wisconsin Teachers of the Year**

The Wisconsin Department of Public Instruction announced that five exemplary educators have been named 2024 Wisconsin Teachers of the Year.

The group received the honor for their dedication to the education profession and for the impact they have on their students as learners and individuals. The group was notified of their selection at separate, surprise ceremonies at their respective schools throughout the last two weeks.

Teachers who receive Herb Kohl Fellowship Awards are eligible to be considered for Teacher of the Year Awards from the Wisconsin Department of Public Instruction. Honorees are selected by a diverse committee to represent voices, contexts, and perspectives as educational leaders throughout Wisconsin. The Teacher of the Year's spend the following year serving as a representative of teachers and public education. They attend several ceremonies in their honor, engage in ongoing professional development as a cohort, and participate in many local and statewide activities.

## Congratulations to Wisconsin's 2024 Teachers of the Year!



Saghar Homayounpour Computer science teacher, New Berlin West High School School District of New Berlin

Homayounpour is in her eighth year as a computer science teacher at West after spending one year as a student learning assistant at Poplar Creek Elementary. She has grown West's computer science program to serve more than 200 students annually, exposing students and developing their skills in this continually evolving field. She also founded the school's successful CyberPatriot Club and is a mentor teacher who supports novice computer science teachers with one-on-one support as they begin their teaching experience.

She is the second SDNB teacher of the year, according to the Wisconsin DPI, joining former Poplar Creek Elementary speech pathologist Tarah Fedenia, who won the award in 2021.

"Having a Wisconsin teacher of the year is an incredible honor not only for Saghar and



New Berlin West, but for the entire district and the New Berlin community, as well," Superintendent Joe Garza said. "This achievement is really a reflection of the incredible staff we have here in our great district, and I could not be prouder of Saghar for exemplifying the high quality of teaching and learning that takes place in all of our amazing schools."

"Saghar is an instructor who, when students have had the opportunity to work with her, they respect, understand, and grow with her passion for her subject and for learning in general," New Berlin West principal Michael Fesenmaier said. "Saghar thrives on challenge, willingly seeking what is necessary to grow and succeed, consistently taking the path that is best for her students and learning. She knows this comes through hard work and willingly engages with the task of continual growth for all."



Claudia Heller de Messer English as a second language teacher at Milwaukee Parkside School for the Arts Milwaukee Public Schools

An ESL specialist, Heller de Messer works with 110 English learners at Parkside who, altogether, speak 19 languages (including English) and live in 10 ZIP codes across Milwaukee. The languages spoken include Burmese, French, Karen, the Somali dialect of Maay Maay, Pashto, Rohingya, Spanish, and Swahili. Many of her students and their families are recent immigrants or refugees, some of whom have been raised in refugee camps.

"I love working with newcomers who are so determined to learn English. It's just such a rewarding job, too," Heller de Messer said. "Everybody learns it. It's just a matter of time. I get to reap some beautiful benefits [from watching their growth]."

For instance, she said, "A lot come with a deer-in-the-headlights look, doing their best just to follow routines. Then they progress to learning enough English to answer 'yes' and 'no' — they're getting that comprehensible input — and then verbalizing more, and learning their sight words and reading.

"All of a sudden, poof, it's all coming together. And you have these little chatterboxes," Heller de Messer said.

She sets up her students for success at school, ensuring they are placed in the correct classes and that parents and teachers can communicate through interpreters. She has a literacy and math tutor work with her students.

Heller de Messer also helps her students and their families outside of the classroom, and on her own time. "I wanted to work more with families, and that's definitely a huge part of my job now," she said.

She helps them navigate essential, dayto-day matters such as discerning which mail is junk and which needs attention, understanding leases for housing, making doctor appointments, and getting driver licenses.

"The children tend to be interpreters for their families," observed Heller de Messer, who is trying to lighten that burden for the students.

Heller de Messer also collected housewares, clothing, and toiletries for Afghan refugees who moved to Milwaukee in 2021, and she has worked with an optometrist who provided free vision screening and glasses for students.

She thinks one of the most important things she does is have a classroom where students speaking many languages can "come together, and there's laughter in the classroom, and there's conversation in the classroom. They have two things in common: They're learning English, and they live in Milwaukee. And they become great friends," she said.





Rachel Kumferman School social worker at McKinley Elementary School Wauwatosa School District

Kumferman has worked for the Wauwatosa School District for 22 years and has served as the District's McKinney-Vento Homeless Liaison since 2011. Kumferman has deep expertise in social work and counseling, but also contributes her talents to the school crisis team and equity team, and she serves as a PBIS (positive behavior interventions and supports) Tier Two coach, and much more.

"My driving force has always been prevention, and to help break down barriers so kids can learn," said Kumferman at her surprise ceremony. "I'm sure I'll break down a little bit later and have a lot of tears, but they are tears of gratitude. I mean, just seeing all the kids, seeing all the staff."

Seeing and feeling that love, Kumferman said, serves as a reminder of why she goes to work every day: "Kids are my passion, always have been, and being in an elementary school."

"We are so honored that Mrs. Kumferman has continued to serve the students of Wauwatosa for more than 20 years," said Dr. Demond Means, superintendent. "The support that Mrs. Kumferman provides to our students truly reflects her character and the care she has for our very youngest learners. We are fortunate to learn from the example she sets each and every day. Congratulations, Rachel, on this much-deserved honor. "

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- **Sarah Fredricks**, 6th grade science teacher at Cheney Middle School, West Fargo







## Five Educators Named 2024 Wisconsin Teachers of the Year Continued from Page 14



Katelyn Winkel-Simmerman Mathematics teacher at Cedar Grove-Belgium Middle School Cedar Grove-Belgium School District

Winkel-Simmerman has taught math at Cedar Grove-Belgium Middle School for over six years. By building relationships with students, she successfully finds innovative ways to reach and teach all students and help them learn and grow as individuals. As the advisor for the school's Student Council and a variety of committees, she works with students to plan events and provide meaningful opportunities beyond the classroom, which have a positive effect on the school and community.

She said her nomination let her reflect on her career as a classroom teacher and specialist, and "determine the learning that I need to do going forward. Receiving this recognition makes me feel appreciated for the work I have done and inspired to continue it."



#### **Brian Collins**

Biology teacher at Unity High School Unity School District

Brian Collins has taught general biology, AP biology, environmental biology, human anatomy/physiology, ecology, zoology, and



ornithology at Unity for about 22 years.

He has used the school forest for research and innovative learning opportunities, and even has his own collection of "birds on a stick" in his classroom.

Collins has also coached football and powerlifting at the schools, has been a participant of Unity's Ojibwe Language Revitalization Club, and has chaired the Professional Staff Development Committee.

He continues his passion for birds and

photography every summer as a contract biologist working all over Wisconsin for the Wisconsin Department of Natural Resources, which he shares in his classroom.



"It has been an honor to travel across Wisconsin and celebrate these teachers. They exemplify what makes the teaching profession so rewarding and so impactful by engaging students in creative ways, creating inclusive classroom and school communities, and serving as leaders in their schools and beyond. The enthusiasm we saw from the students really shows the great work these teachers are doing, and I know that great work is happening in schools all over our state. Let me say a huge thank you to all our Wisconsin teachers! You make a difference every day, and we are grateful."

> ---Wisconsin's State Superintendent of Schools

## **Another Round of Applause to These Exceptional Educators**

## **Five Educators Named 2023 Wisconsin Teachers of the Year**



Kaelee Heideman

School counselor at Carl Traeger Elementary School, Oshkosh Area School District

Heideman is a leader at the school and within the district, cofacilitating the social emotional learning team and providing professional development around equity, trauma-informed care, and positive behavioral interventions and support. "I have so many dreams for what I can do with my students. I just want to support them however they need it, roll with it and be flexible in whatever that looks like for them and giving them the best parts of me always."



Sarah Kopplin

Geography teacher at Shorewood Intermediate School, Shorewood School District

Kopplin has a passion for social studies education and finds innovative, resourceful ways to provide opportunities for all students. In addition to serving on the school's instructional leadership, Kopplin also is a member of several district, state and national organizations advocating for social studies education and has a sincere commitment to improving outcomes for students.



Lori Danz

Biology teacher and school forest coordinator at Superior High School, School District of Superior

As the coordinator of the school forest in the Superior community, Danz has worked to make improvements to the forest since its creation, making it a place for students and educators to enjoy outdoor education. "This recognition validates not only my years of working as an educator, but just as importantly, it recognizes and validates all the talented and generous teachers who I have had the opportunity to work with."



**Peggy Billing** 

Library media specialist at Lakeland Union High School, Lakeland Union High School District

The award was completely unexpected for the librarian. "The teachers here are amazing, I mean they've all been incredibly supportive in different ideas, fun to work with. Definitely willing to try some unique things that, you know, we can come up with and it's really a collaborative effort," said Ms. Billing. "She has helped me in so many ways to find a creative outlook on different situations," said student Teiya Farmer.



**Dustin Anderson** 

Art teacher at Grant Elementary School, Wisconsin Rapids Public Schools

Grant Elementary Principal Nicole Calteux credited Anderson for being a leader in the district, working tirelessly to provide the best education for every student. Anderson has a passion for art and uses it to help students and the community learn and grow. "This job is so rewarding, every day we come home and we learn something new," said Dustin.

Fall 2022, Volume 1, Page 13

## **Another Round of Applause to These Exceptional Educators**

## Two Wisconsin Teachers Receive National Recognition for Inspiring Students in STEM

Lois Womack, mathematics teacher at Marvin E. Pratt Elementary School in Milwaukee Public Schools, and Leigh Kohlmann, science teacher at Rock River Intermediate School in the Waupun Area School District, were named 2020 recipients of the Presidential Awards for Excellence in Mathematics and Science Teaching by The White House on Feb. 8, 2022. Womack and Kohlmann, along with three other teachers, were named state finalists for the PAEMST in December 2020.

PAEMEST is considered the highest K–12 award teachers in the mathematics and science (including computer science) fields can receive from the United States government.





Leigh Kohlmann brings over 30 years of dynamic teaching experience to the Waupun Area School District. Her passion—and pedagogical strength—is teaching science to Rock River Intermediate School students. She particularly enjoys working with sixth graders because she thrives on their energy and pliable sense of discovery. Lois A. Womack has been a fourth and fifth grade mathematics teacher at Marvin E. Pratt Elementary School for the past five years. She is passionate about teaching mathematics and building relationships with students. Her goal each day is to make the mathematics concepts and skills explicit in order to enhance students' understanding.

Fall 2022, Volume 1, Page 16

## Wisconsin's Superintendent of the Year is Dan Olson, Monona Grove School District



After more than 30 years in education and over a decade in school and district administration, Dr. Olson sees himself first and foremost as an educator. He is being recognized for his leadership in the district's initiatives on equity, institutional practices, mental health and wellbeing, and engagement among others. Dr. Olson has established the Monona Grove School District as a place where the floors and walls are not what make the schools vibrant—it is the people, the sense of belonging, and the community created and built together.

"I am grateful and proud to work alongside the dedicated members of Team MG. This award is a recognition of the work done by each and every member of our staff," Dr. Olson said. "Our teachers and staff, our students and families, and our

community are dedicated, hard working, and supportive. It is a privilege to serve as superintendent of Monona Grove."

Winter 2022–23, Volume 1, Page 13

## Sheboygan Health and Physical Educator Inducted into SHAPE America Hall of Fame



Society of Health and Physical Educators is pleased to announce that retired health and physical educator and coach Kristine (Kris) Fritz was inducted into the organization's Hall of Fame.

Fritz continues to serve the Sheboygan Area School District in Wisconsin as a preschool physical education teacher at the Early Learning Center, as part of a program she established as an emeritus project. She is an enthusiastic professional who leads by example, motivated by the idea that "we accomplish in proportion to what we attempt."

Winter 2022–23, Volume 1, Page 13

## 2022 WI Principals of the Year AWSA

#### 2022 Elementary Principal of the Year Stephanie Filter

Filter, who has served as the principal of Madison Elementary in the School District of Janesville for the past eight years, is known as a collaborative leader who focuses on bringing people together around shared goals. Over the years, Principal Filter and the staff at Madison worked to identify efforts that would lead to improved educational outcomes by employing research-proven programs and developing a positive culture.

"Stephanie has worked hard with her team to deliver on our Janesville Promise of having every student known by name, strength, and need," said Steven Pophal, Superintendent of the School District of Janesville. "She will be the first to say it is a team effort, but her leadership has certainly helped the entire staff at Madison Elementary School remain focused on doing what is best for students."

#### 2022 Secondary Principal of the Year Dr. Anuradha Ebbe

Dr. Ebbe has served as principal of Cherokee Heights Middle School in the Madison Metropolitan School District for the past two years. During that time, she has focused on viewing diversity as a strength, implementing even disciplinary practices and incorporating antiracist practices into the school.

"During her time at Cherokee Heights, Dr. Ebbe has been willing to have difficult conversations with students, staff and families that ultimately lead to a healthier, positive and more inclusive culture at her school. As a result, the school has made notable improvements and has navigated the many challenges of the pandemic in truly thoughtful and effective ways. This honor is certainly well deserved." — Jim Lynch, executive director of AWSA

Winter 2022–23, Volume 1, Page 16



## Congratulations 2022 School Social Worker of the Year Carla Vorpahl!

T h o u g h Carla's accomplishments are many, it is undeniable that her greatest gift is how she supports others. In the words of her school's principal, "My confidence in Carla Vorpahl is unmatched as she moves people



forward. She continually empowers those around her to work not only harder but smarter. I would follow her anywhere. So should we all."

## **Another Round of Applause to These Exceptional Educators**



### Congratulations to Wisconsin's 2022 National Board Certified Teachers!

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.

Winter 2022–23, Volume 2, Page 14

## Misa Sato is the 2023 National Assistant Principal of the Year!



Sato, who has served as assistant principal of Reagan High School for the past six years, has focused on fostering a school culture based on respect and high expectations. At the same time, her leadership has emphasized student and staff well-being, with every student in her school knowing that the school values their contributions.

Mike Roemer, Reagan High School's principal, called Sato "a rock star." He and fellow assistant principal Kelly Carpenter cited Sato's exceptional interpersonal, relationship-building, and listening skills, as well as her empathy, as hallmarks of her leadership. "When you're a principal, that's the most important thing: your supporting cast," Roemer said. "She's a rock star. Do you know how lucky I am?"

Spring 2023, Volume 1, Page 14

## 2023 WI Elementary Principal of the Year Nikki Harcus



Harcus has served as principal of Westside Elementary School in the Sun Prairie Area School District for the past seven years.

As one example of Harcus' commitment to shared leadership and collective efficacy, Westside has brought together staff, students, families, and community partners to build a highly effective Community Schools Program. Based on the results of a caregiver needs assessment, the school and its partners have launched a "walking school bus" to increase attendance, opened an onsite food pantry and clothing closet, started a family assistance fund, and grown the after-school program.

Spring 2023, Volume 1, Page 14



## Herb Kohl Educational Foundation Announces 2023 Scholarship and Award Recipients

The Herb Kohl Educational Foundation has announced 306 Wisconsin students, teachers, and administrators are the recipients of the organization's 2023 Student Excellence and Initiative, Teacher Fellowship and Principal Leadership awards. Wisconsin's Teachers of the Year are selected from the 100 educators awarded Teacher Fellowships.

Spring 2023, Volume 1, Page 12

## 2023 WI Secondary Principal of the Year Andrew Farley



Mr. Farley has served as principal of Brookfield East High School in the Elmbrook Schools for the past nine years. During that time, he has built a school culture rooted in positivity, opportunity, collaboration, relationships, and a commitment to the growth of students and educators as learners and leaders.

"Mr. Farley has had a tremendous impact on the staff, students, and families at Brooksuperintendent of the Elephroet

field East for nearly a decade," said Dr. Mark Hansen, superintendent of the Elmbrook Schools. "Through a strong school culture built on academic and human excellence, Brook-field East is flourishing."

#### Spring 2023, Volume 1, Page 16

## Milwaukee Public Schools English Language Arts Teacher Named 2022–23 Global Educator of the Year



Erin Sivek was presented the Global Educator of the Year Award during Milwaukee Public Schools' World Fair. She received the honor for facilitating global learning in ways that respect and value her students' home languages and cultures.

A professional colleague highlighted Sivek's success with connecting student learning to life beyond the classroom through guest speakers, field trips, and participation in campus and community events. Sivek has received national and international recognition and support for her work.

Spring 2023, Volume 1, Page 16



"Viterbo just really built a solid foundation in my educational philosophy."

**RYAN RIEBER** Superintendent of West Salem School District Viterbo University Alumnus

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## Elkhorn's Autos Program — A Real-World Application of Classroom Learning

Austin Thorson, Technology and Engineering Teacher (automotive), Elkhorn Area School

Austin works tirelessly for students. He has remodeled his curriculum to align with best practices, created an Auto Club that competes regionally and nationally with great success, and hosts Open Shop Night, which allows students, families, and community members to work on their vehicles in the Elkhorn Area School District auto shop. Austin has developed strategic partnerships and is highly respected and regarded by local automotive centers for feeding the employment pipeline with talented and trained students. — Chris R. Trottier, Director of School-to-Work Opportunities, Elkhorn Area School District

(From the WI DPI's website as part of their celebration of CTE earlier this year.)

Austin kindly shared more about his automotive program at Elkhorn Area School District.

In the 12 years Austin has been teaching automotive classes at Elkhorn Area High School, the program has grown dramatically.

When he first started teaching at the school, there were 9 different automotive classes. The program now has three, year-long courses, that feed into a Career Pathway for Elkhorn's students. Some of the courses were combined to make it easier for students to enroll and to make following the automotive pathway more accessible for all students.

The program boasts an eight-bay automotive shop which has had numerous improvements over the last 12 years including:

- Replacing/ adding new auto lifts in the shop including 4 two-post lifts and 1 four-post drive on lift.
- Updated alignment equipment



- Updated tire equipment
- Re painted the entire shop.
- Updated all the lighting.
- Replaced all of the garage doors.
- New and updated tools.

## Automotive classes offered at Elkhorn:

#### Air Cooled Engines (Grades 9–12)

#### Consumer Auto (Grades 10–12)

- Car Basics for the everyday car owner
- VIN numbers, tools, car buying, car insurance, car washing, roadside tire change, batteries, jump starting, spark plugs, oil changes, fluids, air filter, headlights, taillights, belts, tire pressure/rotation/plugging, and roadside emergency kit

#### Auto 1 (Grades 10-12)

 Introductory Course on working on automotive vehicles.

 tools, VIN numbers, scan tools, starting system, charging systems, fuel system, ignition system, lubrication system, cooling system, batteries, intake and exhaust, engine construction

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#### Auto 2 (Grades 11-12)

- Brake hydraulic system, bench bleeding a master cylinder, flaring brake lines, bleeding brakes, disc brakes, drum brakes, power brakes, ABS system, steering and suspension, wheels and tires, tire balancing/ mounting/patching, alignment
- Pro-Cut Rotor Matching SNAP-ON Certification
- Auto 3 (Grades 11-12)
  - Auto 3 is a student lead service center. The students take on real world application by working on vehicles for staff and students. Making repairs to their daily vehicles.

Austin said he is most proud of the the Auto 3 Class.

"In this class we run our EAHS Automotive Service Center. This class is set up as a Mock Service Center for students in auto 3. Students take 2 years of auto classes prior to entering and perform live repairs on teachers' and students' vehicles. The students perform diagnoses, repairs, maintenance, invoicing, parts ordering, and customer service in this class."

SUMMER/FALL 2023

"This a totally student run business. Students are in charge of invoicing and billing. There are students in shop foreman roles. We have students even keeping a live inventory of the supplies we use in this class."

"I believe getting students out in the shop, working with vehicles with real problems, is the best way to test their skills and give them opportunities to learn and hone their new skills. I focus on helping students explore the automotive career pathway and giving them opportunities to see if working on vehicles in a fit for them."

Although auto repair skills are a large component of what is taught, they also work on employability skills in class. They have put together an employability skills rubric which is used in the shop to help students prepare for the work force.

Partnerships with local automotive shops have benefitted both sides with students entering YA placements, donations to the program, future employees with skills already in-place, and most importantly, opportunities for the students who can have a head start on their future.

Community involvement is another important part of the Elkhorn automotive program. Austin said, "We are always trying to give back to the community for all of their

#### **Continued on Page 26**

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#### Summer/Fall 2023



## North High School Junior Experiences Real-Life Scenarios Through Power Mechanics

#### Sheboygan Area School District

Abigail Tagel was a junior this last school year at North High School. She has taken Tech Ed classes in the Red Raider Manufacturing (RRM) program since her freshman year and was enrolled in Automotive Technology and Electro-Mechanics for this one. Abigail has also taken Power Mechanics and Advanced Power Mechanics.

She thinks that students who take classes in the RRM program can learn useful skills that will not only benefit someone going into the trades but anyone who will own a car or other machinery like a lawnmower.

"Working with actual machines gives students the opportunity to practice troubleshooting in a real situation, as opposed to scenarios in the lab," Abigail said. "I've cleaned and adjusted a carburetor for a boat, replaced rear axles on an ATV, and even changed the exhaust for my own car."

Abigail pointed out that students can bring in their own equipment to fix, too, even for something as simple as an oil change. She takes a lot of pride in a project she completed for her own vehicle.

"I was ahead with labs and assignments, so I brought in my car to paint the rims and

change the tires. It took about a week to complete, but it was super fun."

#### The Automotive Program at SASD

The automotive courses at Sheboygan North and South High Schools fall under the umbrella of the Red Raider Manufacturing (RRM) program.

The automotive facility houses four bays with rotary lifts. There are two 10k lb. asymmetrical two-post lifts, a 14k lb. drive on four-post, and a 12k lb. Alignment lift and Hunter Aligner. Workbenches and tables are located at the edge of the shop for Power Mechanics and Advanced Power Mechanics courses where students work on small engines and small engine powered equipment. Students have access to a good variety of hand, power and diagnostic tools & equipment to complete their service tasks and repairs.

Classes include:

- Power Mechanics (semester)
- Advanced Power Mechanics
- Automotive Technology & Electromechanics
- Advanced Automotive Technology & Electro-mechanics
- Capstone Automotive (Honors course)



Automotive Technology starts with entry level automotive topics such as:

- Basic inspections and maintenance procedures like fluid changes, tire rotations,
- Computer system fundamentals and using scan tools
- Tire and wheel service with tire changers and wheel balancers
- Automotive Engines and related systems, there is a class set of engines for practicing some remove & replace type procedures.
- Electrical, starting, charging system fundamentals with Digital Multimeters

#### Continued on Page 32



## New Berlin Motorcycle BUILD



David Cotey, Director of Communications and Public Relations School District of New Berlin

Every Wednesday after school and into the early evening hours, a handful of New Berlin high school students get together at the district office's garage and warehouse.

In one corner, you'll find two people donning welding helmets, a student carefully following his mentor's instructions as he tries his hand at welding for the first time. Another student grips a SAWZALL and works diligently to modify a frame, nodding along in agreement as his mentor offers suggestions.

Other students gather around and work on removing a tire from a rim, while a couple others test and replace the battery needed to bring their creation to life.

These students - and their mentors - are part of the School District of New Berlin's BUILD vintage motorcycle club. From January through May, the Eisenhower and West students learn the many tasks required to take a street-legal motorcycle and turn it into a flat track racing cycle.

There are more than a dozen students in the club, which has been offered in New Berlin since the 2014-15 school year. They perform the entire deconstruction and rebuild of the motorcycle under the close supervision of their mentors, and they can expect to learn how to weld; cut, shape and form metal; use machines such as a lathe, mill and drill press; and learn about the painting processes such as powder coating and spraying paint on parts.

But there's more to it than just building a motorcycle. The students are involved in fundraising for the program, managing the team's social media platforms and more. And come May, they take their bike to several racing venues to compete against other high school BUILD programs from across the state.

"We're a team. We look out for each other and help each other and that's what it's all about, said one of the club advisors, Doug Giesfeldt, who is on the district's buildings and grounds staff in the maintenance department.

"They're getting some hands-on skills that they might not get otherwise. Myself, and the other mentors, we all grew up working on stuff. It's beneficial for these kids. Maybe one of them will turn out to be a motorcycle mechanic, or auto mechanic, but if not, they learn how to fix things on their own car or bike in their garage someday."

The club, which benefits from its many sponsors and partnerships throughout the area, has not only sparked students' understanding and fondness of motorcycle culture, it has also raised students' interests in auto mechanics. Neither of the district's high schools offer an automotive class, but instead, the district partners with Waukesha County Technical College to provide opportunities for students to take various classes for college credit. Many times, the courses offered by WCTC would be cost-prohibitive too for individual high schools or public school districts to offer on their own.

Annually, dozens of SDNB students enroll at WCTC and earn college credits while in high school.

One of those such students is 2022 West graduate Matthew Cannon. Matthew learned about BUILD at a STEM fair the district hosted when he was in middle school. He already had an interest in racing and cars, and knew BUILD was for him when he joined as a freshmen. Four years later, he earned his associate degree in automotive technology at WCTC.



"It's really important that the district offers opportunities like BUILD to show students this field that's growing and needs more people in it," Matthew said. "And if they like working with their hands and get bored sitting in a classroom, this is another thing they can do to be creative and use different skills."









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## **Tech Wing Boosts Interest in CTE**



#### D.C. Everest Area School District

Since the D.C. Everest Senior High unveiled its new Tech Wing in 2020, the school has seen a steady increase in course enrollments serviced by the new labs.

The new labs are spacious, filled with sunlight, have vast storage areas, fully stocked tool chests, and millions of dollars' worth of stateof-the-art technologies and machinery, much of which was donated by community partners and businesses. "Because of our donors," stated DCE Superintendent Kristine Gilmore, "our students now learn on the same equipment professionals use today. This really empowers our students because they can more easily transition to postsecondary courses or a career right out of high school."

A strong case in point is the Transportation Lab and Ag Power Lab. Prior to 2020, the Transportation Lab could barely fit two vehicles and was outfitted with a mismatched selection of tools acquired over the years. As one student observed, "We didn't have enough time to learn much because we'd be hunting for tools." In addition, students enrolled in the introductory Small Engines course would start the semester working on a variety of engines that looked nothing alike — complicating lessons designed to demonstrate to students the basics of engines, their parts, and how they work together as a whole.

That certainly is not the case today. Now, with a vast array of new tool sets and organizational systems within the toolboxes, students admit they take great care of, and pride in, their professional tools. The Transportation Lab now can easily house six cars and a semi at one time. And the Ag Power Lab is outfitted with identical Kohler lawn mower engines and John Deere tool sets that aid students in collaborating as they begin to parse out the basics of engine functionality. "Now we all have the same exact engine to work on when we start the class and the same tools, which makes it much easier for us to learn and help one another," noted a student.

Industry and post-secondary partners provided critical input during the #FutureReady renovation and planning process to ensure the facilities and courses were aligned with the needs of the community. Thus, the Transportation Lab is outfitted with multiple tire changers, an alignment machine, and a hydraulic tube bender for custom exhaust repairs. The lab also provides instruction, and the necessary equipment, related to diesel engine repair — something greatly needed in the area. "

Another instruction area that has experienced a significant increase in student enrollments is Small Engines. In the introductory course students disassemble and rebuild a lawnmower engine and then have the freedom to work on other small engines to advance their understanding of the parts, components, systems, tolerances and general maintenance of the engines. Upon completing this course, students can advance to Power Sports where they work on four-wheelers, motorcycles, dirt bikes, jet skis, etc. While students typically bring in their own project to work on, many also repair items brought in by family members or staff.

The DCE Senior High has also expanded youth apprenticeships and internships for students by hiring a full time Community Partnership Coordinator, who helps students secure these work-based learning experiences. The program has been particularly successful, with both students and employers benefitting from the opportunity to bring youth into the workplace. In the past two years, numerous students have apprenticed at local automotive shops, gaining critical real world experience that helps them clarify their career plans and boost their resumés.

> www.dec.k12.wi.us/ seniorhigh

## **Spring Car Show**



Students and teachers at D.C. Everest Senior High School brought their cars to school to promote their auto program.

Some of the students brought their own cars that they have been working on.

One senior has been working on his 2002 Ford Ranger for years. "I bought it for \$400 when I was 14 years old. It's a father-

son project. It had a blown motor and we put a new one in it. Built it pretty much from the ground up. It's kinda my pride and joy," he said.

Students were supported by two regional car clubs. This year was their biggest turnout since the car show began.

## Elkhorn's Autos Program Continued from Page 21



support over the years."

Austin started an Auto Club when he started teaching at the school. The club is a totally student-led program. They put on an annual car show each year, participate in the home coming parade, and new this year, a community night for community members to come into the auto shop to learn how to perform basic auto repairs themselves.

What his students are learning in this shop

setting, actually doing, in practice, is a huge factor in student success. This is a real-world application of classroom learning. It's functional and it works.

For more about Elkhorn's automotive program visit their website: <u>https://sites.google.</u> <u>com/view/elkhornhighschoolautos/home</u>

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## D.C. Everest Sixth Grade Students Take on an Electric Vehicle Design Challenge



#### D.C. Everest Area School District

As part of a new Electricity Engineering Project at the D.C. Everest Middle School, sixth grade students delved into the field of study through a variety of hands-on circuitry activities, model construction, electric vehicle design challenges and input from a current NASA engineer.

To gain a foundational understanding of electricity, students began by designing, engineering and testing both series and parallel

circuits using Snap Circuit kits provided by a grant secured through the D.C. Everest Educational Foun-Students dation. then applied those lessons to realworld designs, constructing electrical alarms, motion detectors, lie detectors, flying saucers and circuitry that allowed them to tune into local radio stations.

"This learning opportunity was so engaging that students begged to have another day to explore and troubleshoot their blueprint models," notes Tammy Bohlman, a 6th grade science teacher at the DCE Middle School. "Our classrooms were absolutely alive with learning."

Once students mastered the necessary background information, they then participated in Engineering Tomorrow's Electric Vehicle Project. This marks the second year the school has partnered with Engineering Tomorrow, a free program that provides students with hands-on instruction, access to virtual labs and the opportunity to interact with professional engineers. This year is the first the school has participated in the program's electric vehicle lab. "Our students love designing and building their vehicles and they are so excited about testing them," adds Tammy Bohlman. The staff at Engineering Tomorrow encourages students to "fail fast" and get right after their next prototype. Their feedback is really positive and encouraging for our students."

For the electric vehicle challenge, the

6th grade student-engineers worked in teams to design and build an electric vehicle that could travel as far and as fast as possible. Students constructed the body of the vehicle using materials of their choice and to power their custom-designed vehicles, students engineered motor, wire and battery pack circuits with a system of gears, pulleys or fans. They

also had to design and develop solar panel charging stations. As part of the experimental design process, students spoke with Milton Davis, OSAM-1 Space Vehicle Manager at NASA's Goddard Space Flight Center and asked questions of collegiate-level engineering students. To close out the unit, some of the students also were able to examine an actual electric vehicle — a Tesla — and ask the owner about its performance.

www.dce.k12.wi.us



#### Casimir Pulaski Students Finding Success in Automotive Pathway Continued from Page 1



"We have everything that a dealership would have to offer," says Luis Vallejo. "Anything a dealership says they want us to be trained in, or that they kind of need a little help in, we have it and we're willing to go the extra mile to get the training they need."

Automotive training of this intensity would not be possible without local partners who serve as mentors and offer internships. A number of local dealers, professional associations, auto repair shops, and body shops are actively engaged to serve as guest speakers and volunteers. Partners also hire students as interns or youth apprentices.

An advisory board made up of community partners is essential to refining and adapting the program. Industry experts regularly review curriculum, skills, technology, and student outcomes to make recommendations and provide connections that keep pace with ongoing changes in the industry.

As a result of ongoing reviews of the automotive curriculum and classroom technology, Pulaski recently added a body shop with a paint booth to expand the range of skills accessible to students. Is the program a success? Hundreds of graduates have gone on to technical schools or have been hired directly after graduation. A number of students have honed their skills and opened their own neighborhood repair shops. Pulaski sees a significant number of students being hired as youth apprentices while in high school and then transitioning to full-time employment directly after they graduate.

"I love going to school every day," said a Pulaski student. "I'm training for something I want to do for the rest of my life. The wages are great and I know I'm not following a dead end. I could not get this training anywhere else in the city except for Pulaski."

> schools.milwaukee. k12.wi.us/pulaski



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Please note: This represents a broad and not conclusive list of careers within the world of transportation

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## Youth Apprentice Programs Add "Teaching" to Automotive Service Industry's Skill Set



By Marie Perry Communications Director for the School District of Belleville

A small town like Belleville, WI allows unique opportunities for high school students to engage with their communities and build mentorships that are meaningful. In the automotive industry, getting a chance to provide educational environments to help teenagers learn about what it looks and feels like to be an "A," "B," or "C" auto technician can help a student with an aptitude for mechanical learning find a way to apply their talents. It is a wonderful way to help educate beyond the traditional high school classroom.

At Christen Brothers Service, Jeff and Mark Christen are doing just that, recently partnering with the Belleville High School through the Wisconsin Youth Apprenticeship (YA) program with the guidance of Belleville High School's School-to-Career Coordinator Teresa Gartley. Through the YA program, Jeff and Mark took Belleville High School junior Seth Dettwiler under their wings last year and helped him find his way into a job he loves. Mark Christen noticed Seth's gifts right away even though the first 4–5 month period of any apprenticeship is essentially a job shadow experience. "Seth had a mechanical aptitude right from the start — that we didn't have to teach." says Mark Christen.

Once at Christen Brothers Service, Seth was able to hone his skills beyond what he had learned in the classroom and became a valued team player. Seth says, "They taught me the fundamentals of automotive mechanics and gave me experience to see how a professional shop runs. This also helped me understand what I want to do with my future. I appreciate the opportunities and experience they gave me."

Jeff and Mark also have a lot of great things to say about the experience of having their first YA, noting that Seth was an attentive learner — always watching, asking relevant questions, and never late! "By the time Seth graduated high school back in January 2023, he was already classified as a B technician." acknowledges Jeff Christen. That is high praise for an eighteen-year-old just beginning his job search!

Seth's experience as a YA allowed him to get his feet wet in a hands-on job he enjoyed while learning different methods of repair like tire rotation, taking cars apart, replacing parts and repairing brakes. This experience built a terrific foundational skill set for his career goals. His School-to-Career Coordinator Teresa Gartley says, "He was in YA for two years. He took Automotive Technologies I Junior Year (Dane County School Consortium Night Class) and earned his Automotive Service Excellence

Certificate. Senior year he was at MATC taking beginning level Automotive courses toward his degree. We paid for the courses related to his YA program." While the

Christen brothers were sad to see Seth take a job after graduation with heavy

equipment so he could pursue his passion of working with diesel engines, they were excited to have trained a great new technician for the auto industry. "We know our hard work with Seth will pay off in the end because some other shop out there is training our next employee through the YA program. It will all come back around to benefit us." says Mark Christen.

To that end, Jordan Roelke, the Service Manager at Rosen Ford Belleville can speak from both sides of the YA experience. "I'm proud to say that I'm a graduate of Belleville High School's Youth Apprenticeship (YA) program. I took part in the program during my junior and senior years, and it was an experience I'll always treasure. I'm grateful that the counselor at Belleville High School introduced me to the YA program and explained its benefits. As soon as she told me I could earn school credit while making money outside of school, I couldn't resist joining the program."

Now, Roelke wants to give back to the program that helped shape his future, encouraging students to consider YA. Roelke thinks it is a great opportunity because the tech training is paid for by the employer, giving students a debt-free training program to enter a needed career field. Roelke notes, "In the automotive industry, training and experience are everything. The average time it takes for a tech to become a 'senior master' for Ford is around 7-8 years. With YA, a student can start this journey at 17-18 and already have a few years of experience under their belt by high school graduation. If you're interested in pursuing a career in the

"They taught me the fundamentals of automotive mechanics and gave me experience to see how a professional shop runs. This also helped me understand what I want to do with my future. I appreciate the opportunities and experience they gave me."

automotive industry, I highly recommend joining YA. It's an experience you won't regret!"

In this way, Jeff, Mark and Jordan are all excited to add the word "teaching" to their skill sets knowing that by participating in YA programs, they are

making their workplaces in the automotive industry a better place the whole way round. Using real-life experiences to shape one's education is the ultimate test and Seth's experience highlights the "wins" for both mentors and mentees. As Seth Dettwiler moves along in his career path, the automotive industry is the recipient of a well-trained employee further serving the purpose behind YA programs in Wisconsin.



www.belleville.k12.wi.us



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Travis Judell, Communications Specialist School District of Holmen

It's the start of another school day inside Holmen High School, and a few students of Ryan Ziegler's Auto Service 1 class are already hard at work helping a teacher whose tire is leaking while others spend time hunched under the hood testing car batteries.

Technology Education teacher Ryan Ziegler is in his 21st year teaching, and he says this type of hands-on learning helps prepare students for the real world, "The students love hands-on learning," said Ziegler. "They can repeat the process until they can complete the task with little to no help from the instructor. It is awesome to see the students complete a task they thought was impossible on their own."

As the weather turns colder, students in the class are working on a battery testing lab. The students are learning how to load test a battery, measure parasitic drain, remove corrosion, and check physical connections to ensure a working battery. "The students walk away with a solid understanding of the basic automotive systems," says Ziegler. "All of the students learn how to maintain their own vehicle."

Another group of students is helping out a Holmen High School teacher whose tire has a slow leak. To find the leak, students have to put their problem-solving skills to the test. "The most important thing I would like them to take away is the problem-solving ability. Use the problem-solving process to simplify the problem and quickly come up with a viable solution," says Ziegler as the students dip the tire in a dunk tank to locate the leak. Finding no visible leak, Mr. Ziegler uses this as a teaching moment for his class about snow tires and how to communicate with customers. "Throughout the course sequence, students will learn how to communicate with customers and coworkers. Some of that communication is done by the use of industry software. Another way is teaching the students how to listen to customer concerns actively," says Ziegler.

Auto Service 1 is a semester course of 85 minutes daily, mainly consisting of juniors and seniors. These high school students are learning with professional tools on actual vehicles with real problems. Auto Service is also a dual



credit class and provides students with three post-secondary credits. This allows our students to earn high school and technical college credit simultaneously and receive their Auto Service Excellence (ASE) certification at the completion of the course.

In this class, students get to learn about these systems by repairing and diagnosing issues:

- Wheel systems and tires: mount and balance tires, tire puncture repair, tire rotation
- Brakes and ABS system: replacing brake pads, measuring thickness, bleeding brake lines, diagnosing ABS sensors
- **Preventative maintenance fluid:** completing checklists, fluid flush, and exchanges, customer concerns
- Charging and starting system: measuring voltage drops and amperage outputs
- **Ignition system:** replacing ignition wires, coils, and plugs
- Cooling system: coolant flow, thermostat replacement, coolant flush

• **Fuel system:** fuel volume and pressure tests, fuel filter replacement

In addition to Auto Service I, these hands-on automotive courses are also offered at Holmen High School:

- Home and Auto: Consumer-based course focused on owning and buying houses and vehicles. The students learn basic maintenance, finance, inspections, and the buying process.
- **Basic Auto:** The students learn automotive terminology, basic tool, and equipment safety, and each automotive system's basic parts and functions.
- Auto Service II: Eligible for for 3 credits at the local technical college. This course is all about advanced systems and diagnostics. They will learn about: shocks/ struts, transmissions, engine performance, drive train, and shop simulation.

www.holmen.k12.wi.us

## North High School Junior Experiences Real-Life Scenarios Through Power

Mechanics Continued from Page 23



- Fuel, Ignition, exhaust system Fundamentals
- Various light repairs
- Accessing and using repair information and repair part sourcing
- Two shop cars and many staff/parent/ community owned vehicles are serviced through the course.

Advanced Automotive Technology takes some of the same topics to a deeper depth but also focuses on Steering, suspension & Alignment, brake, transmission/drivetrain, advanced electrical troubleshooting and service.

Capstone automotive is similar in taking previous topics further as well as adding a

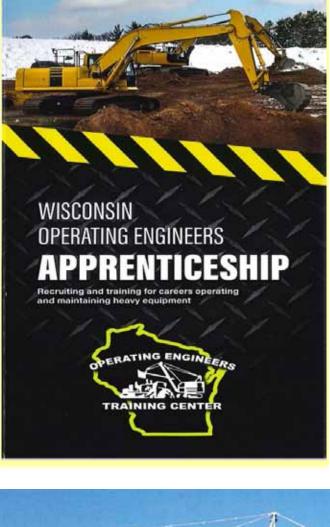
greater emphasis on diagnostics and repair processes. Like the advanced power mechanics course, many of the vehicles worked are staff/parent/community member owned vehicles for a more real-world experience.

The Red Raider Manufacturing program gives students the opportunity to learn and grow in a high-tech environment before even graduating from high school. Learn more about the program here: <u>https://www.sheboygan.</u> k12.wi.us/programs/red-raider-manufacturing

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## The Ahnapee Diesel Center and Ahnapee Automotive Program



#### Luxemburg-Casco School District

Located in the district's former middle school building on Church Street in Casco, the Ahnapee Diesel Center houses the first credit-bearing, diesel-only high school education program in Wisconsin and is one of roughly 20 such programs nationwide.

Its facility features a 4,200-squarefoot main instructional area, along with a 1,000-square-foot classroom space. The project converted the one-time Art and Wood Shop areas of the former Luxemburg-Casco Middle School into the diesel center. The district's middle school moved to the main L-C campus at the start of the 2020-21 academic year. Among the significant modifications within the 4,200-square-foot main instructional area were the lowering of the concrete garage floor by 2 feet to accommodate a full size semi-truck cab, enlargement of the front overhead door to 18 feet, creation of a new exterior ramp, the addition of a rear overhead door to facilitate entry of smaller diesel equipment, enhanced exhaust systems and ductwork to adequately distribute air and mitigate contaminants, attachment of interior and exterior catch basins, and upgraded electrical outlets to support safe operations.

Ahnapee Diesel is a consortium of area high schools: Luxemburg-Casco, Denmark, Algoma and Kewaunee. Students in their junior and senior years are given the opportunity to earn college credits while also receiving credit towards high school graduation.

With successful completion of the college's Diesel Maintenance Technician (DMT) curriculum while in high school, students attain a one-year technical diploma. The required 26 credits include courses such as Transportation Welding 1 & 2, Diesel Lab Operations, Intro to Diesel Mechanics, Intro to Electrical Systems, Diesel Heavy Duty Electrical 1 & 2, Chassis Sub-Systems,

quality instruction and fully equipped, professional-quality toolboxes, along with the new facilities. Almost all of the students in the diesel program have been placed in the Ahnapee Youth Apprenticeship program with our partner businesses. We believe that the L-C diesel program will be a win-win for our students and the local business community."

#### The Ahnapee Automotive Program

The Luxemburg-Casco School District also hosts another educational initiative — the Ahnapee Automotive program.

Students are provided with the opportunity to earn college credits while also receiving credit towards high school graduation.

Through successful completion of the Automotive Maintenance Technician (AMT) curriculum, students attain a one-year technical diploma. Following graduation from high



Hydraulic/Pneumatic Systems, and Engine Sub-Systems.

Upon graduation from high school, students can choose to pursue a technical diploma as a Diesel Heavy Equipment Technician or a Diesel Medium & Heavy Truck Technician. Associate degrees in either Diesel Heavy Equipment Technology or Diesel Medium & Heavy Truck Technology also are possible student pathways.

Strong support from area companies and the regional transportation industry have been a catalyst in getting the Ahnapee Diesel program off the ground. "With the help of many area companies who have been willing to form strong partnerships with L-C, we are able to create a workspace mirroring that of a professional diesel mechanic," says Mike Snowberry, the district's director of learning services who is guiding the program's creation. "Our students will have school, they may choose to ladder into an associate degree in automotive technology or a two-year technical diploma as an automotive technician.

"One of the themes that we have heard loudly and clearly from our community, our business leaders in the transportation industry and from the college is that there is a huge need to produce highly trained automotive technicians, and that those technicians can earn lucrative salaries in a very broad market," says Luxemburg-Casco District Superintendent Glenn Schlender. "Because of that messaging, we created the Ahnapee Automotive program. "The district believes in the importance of providing L-C students with a wide range of educational choices. This program is designed for those students with a mechanical aptitude, who enjoy diagnosing and solving automotive challenges.'

To receive the one-year AMT technical diploma, students must complete 26 credits in courses such as Transportation Service Operations, Auto Service Operations, Brake Systems, Steering & Suspension Systems, Intro to Electrical Systems, Engine Repair, Engine Performance, Advanced Chassis Systems and Transportation Welding.

"We couldn't have done this without the help of the many great partners who stepped forward," says Mike Snowberry, the district's director of learning services who is spearheading the program. "One of the things that I tell people is, if you invest in us we're going to invest back in you. One of my passions is that I'm going to try to find you the best people I can in our school system that love turning wrenches. What gets me excited every day is helping students to find their purpose."

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## **Beloit Memorial High School's Automotive Program is Racing Forward!**



#### School District of Beloit

Beloit Memorial High School's automotive program is a NATEF certified program which focuses on technical skills and has a strong emphasis on the employability skills that our students need in order to be successful in the workforce, regardless of the career path that they choose. New instructor, Guy Olson is transforming a traditional automotive program into an industry-modeled learning program.

Beloit Memorial is a Wall-to-Wall Career Academy comprehensive high school. As part of the PACMES (Public Safety, Automotive, Advanced Manufacturing, Construction, and Engineering academy), the Automotive pathway includes work-based learning opportunities such as job shadows, co-ops, and Youth Apprenticeship (YA). The following courses in the automotive sequence are open to all high school students in grades 9–12 and follow the 80/20 format of percent of time in the shop to time in the classroom:

- **Intro to Automotive Technology** an entry level course with an introduction to shop safety, shop operations, basic automotive repairs, and careers in the automotive industry
- Automotive Technology 1, 2, and 3 courses progress from fundamentals of modern day automotive technical servicing to advanced engine performance that

include work on fuel, emissions, heating and air conditioning, transmissions, steering, and suspension systems.

Dual credit options are currently available through the local technical college and are in the developing stages with a technical institute and other local technical colleges. Multiple industry certifications are also available as students progress through our Auto Technology sequence, including ASE Entry Level certifications and Snap-On Scanner certifications. Increased high school to college avenues and professional certification opportunities for students are currently in the development stage.

The successful completion of the three Auto Technology courses will prepare students

*them.*" While we have good student enrollment numbers already, Guy is working to build the level of interest in this field whereby we fill classes to capacity. "I'd like there to be a waiting list of interested students in the future" he stated.

The facility is first-class, with eight full size service bays, an adjoining classroom, and demonstration learning room. Since the fall of 2007 our automotive shop has occupied the former Sears Automotive Center in the Eclipse Center (former mall). We are fortunate to be able to lease this classroom space from the property management company. The Automotive Center is located directly across the Rock River from the Beloit Memorial High School making it accessible to any student taking these courses.



for an entry-level automotive technician position. 10th grader Ash C. stated, "My plan is to take all four classes, earn certification, and then try to get a job at a dealership."

In addition to skill development in automotive repairs on vehicles that serve as learning modules, our instructor, Guy Olsen, operates the program as a fully functional automotive shop; every student isn't going to become a mechanic but may still be in the automotive field. Students learn workforce skills starting with a Point of Purchase and Service Area where they create work orders, order parts, schedule and confirm service appointments, track progress, complete and organize work order documentation, and demonstrate customer service skills as they work with customers from the drop-off to pick-up of the customer vehicle. This provides real-life learning opportunities that prepare the students for multiple jobs in the automotive repair industry.

Carlos A., a 12th grader in Auto Technology 1, states that "This provides REAL hands-on experience of what it is like to work in a shop. We interact with the customers with the whole process of ordering parts, working on their vehicle, and then delivering it to It is an impressive facility by any standards!

Recent updates within the program include a new tire balancer, new tire mounting machine as well as vehicle diagnostic scanners. Planned for the start of the 2023-24 school year is a top of the line Snap-On Zues diagnostic scanner that has intelligent diagnostics to interface with diagnostic scanners in the industry through a nationwide network. The scanner also has bluetooth capabilities so the diagnostic readings can be projected onto a classroom screen so each student is involved in the learning experience.

Future plans include painting the shop and creating videos that brand our program BMHS Motor Sports and also showcasing the many opportunities our program offers. In looking for ways to continually build the program, Guy is looking to add electric vehicle service and a drag racing club (he is a drag racer in his spare time) where students would work on the drag cars during the school year and be a part of a drag racing team crew in the summer.

www.sdb.k12.wi.us

#### Summer/Fall 2023

## Automotive Program at Arrowhead Union High School



The Technology and Engineering curriculum at Arrowhead High School, located in Hartland, Wisconsin, provides a comprehensive study in technology, engineering, manufacturing, and automotive with emphasis on skill development and career exploration.

For over 40 years, the Automotive Program at Arrowhead has been a constant.

photos and artwork submitted to *Transportation Today WI*<sup>TM</sup> are assumed to be released by the

submitter for publication.

Stable, with several periods of growth. Arrowhead has become an accredited school through the National Automotive Technicians Education Foundation (NATEF) as well as the Automotive Youth Education Systems (AYES). Both associations provide graduates job opportunities, scholarships, free tools, and advanced placement at two local colleges.

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The Auto's area is housed in two different major locations; a classroom where students learn about vehicle systems and the more technical side of the content, and then a much larger lab area where students apply the knowledge they have gained by working on Shop vehicles or even their own vehicles if so desired. Both classroom and lab are housed in the school and are directly connected so students can gather direction and information in the classroom and walk right out into the shop and get to work on whatever the task at hand is.

Each class typically runs with 6 groups. Each group has a basic toolbox dedicated to them that they can roll around the shop in order to have access to the basic hand tools they use on a day-to-day basis. Students also have access to 6 car lifts, two tire change machines (one of which is only 1 year old), a 1-year-old tire balancer and two larger tool boxes full of more specialty tools. They also have anywhere between 6-8 "Shop-cars" that stay on school grounds at all times, that students can use if they do not have their own vehicle they wish to work on.

The program is offered to our juniors and seniors, primarily because of other opportunities and facilities available. There are 4 automotive classes. Students can start with Consumer Autos (geared towards students who really want skills to do their own car maintenance) or Auto Tech I (geared towards students who are interested in working in the automotive industry). Auto II is the next level class that takes a deeper look at careers and skill sets that are valuable for those looking at becoming an auto-technician.

The capstone class is Advanced Autos which is a yearlong course in which students are doing more independent problem solving of complex systems. Currently there is an Advanced Automotive student that is working to remove and replace the entire engine and transmission on a vehicle, and they are doing this with minimal guidance from the instructor. They are using a service repair manual and their own prior knowledge and problemsolving skills to accomplish this task.

The Automotive Program at Arrowhead High School places a very high value on developing employability skills. The experiences in the lab area are designed to nurture the development of technical auto skills in the curriculum as well as employability skills such as communication, time management, responsibility. Through various strategies, such as job sheets, students receive feedback on such skills and its part of their grade.

Students also have the option to participate in an Autos Youth Apprenticeship Program. This is a 1 or 2 year program where students work in the industry on specific competencies while being supported by a mentor on the job and related coursework at school. Students work 450 hours per year while in the program. This program is for those students serious about their future plans and willing to be released from school to gain work experience in a professional environment.

Arrowhead high school is a superb place to learn and work as a direct result of our people and programming. The staff members are a hard-working, caring team of professionals who are dedicated to continuous improvement and success at north and south campuses, in all departments, and in all classrooms.

Information courtesy of Brenda King and Michael Wesp, CTE Program, Arrowhead Union High School

www.arrowheadschools.org





## WIN A PLANE! 19th Licensed Pilot from Central High School STEM Aviation Program



Eagle's Nest project Wisconsin (ENP WI) is excited to announce our newest pilot, Jesse Nau. He successfully completed his flight review and piloted our third aircraft flawlessly despite gusty conditions. With Jesse's achievement, the ENP WI has now produced a total of 19 licensed pilots.

The Aviation Club, formed in 2014, teaches students how to build and fly aircraft.

The program is an initiative supported by ENP WI, a nonprofit 501c3 organization. ENP WI is funded 100% by donations.

Not only does this high school aviation program build it's own fleet of light aircraft (they're on their 4th), but for some students, building the airplane is only the beginning. Students who are part of the program can use the plane free for flight instruction. The program has two flight instructors, professional pilots, who train the students.

This provides students with the unusual opportunity to learn to fly in an aircraft they helped build. Those who earn their license also have access to the aircraft.

Please help support students like Jesse and signing up to win one of the RV-12 aircraft is a fantastic way to contribute to this project's success.

The sweepstakes will run until 5,000 tickets are sold or Sept. 8, whichever comes first. Tickets are \$100, three for \$250, six for \$500 and 14 for \$1,000. Tickets can be purchased at <u>falconaviation.org/the-cockpit/</u> sweepstakes.

www.westosha.k12.wi.us

# Aviation and Aerospace: New Course Taking Flight at HUHS



#### Hartford Union High School District

The Hartford Union High School District is excited to announce that the Board of Education has approved the AOPA Foundation High School STEM curriculum starting in the fall of 2023. HUHS will offer this new course "Introduction to Aviation and Aerospace," which will complement the Aviation Club program offered by Kettle Moraine Youth Aviation, where students build an RV12iS two-seat aluminum airplane at the Hartford Airport.

Lawrence Sullivan founded the KMYA in 2020 after a group of aviators in Washington County, WI, shared a belief that youth would greatly benefit by participating in hands-on aviation activities. Since its inception, thirtytwo students from Hartford Union High School and Slinger High School have participated in the Aviation Club.

Students in the Aviation Club are currently working on building their second aircraft. The stabilator, vertical stabilizer, tailcone, and trim tabs are completed. Teams are currently working on the wings and fuselage, their third kit, which they hope will be available next fall. The experience of building and flying an airplane requires perseverance, patience, cooperation, math, visual/spatial skills, and manual skills that can be useful in all walks of life and careers.

and they just ordered

Mr. Jeff Walters, Hartford Union High School superintendent

said, "We are extremely grateful for the leadership of Dr. Sullivan and the many mentors who have made the experience with the Aviation Club such a success. Hartford Union High School is super excited that students can continue to pursue their interest and passion for aviation through this new course offering."

The course and club hope to satisfy a real need for aviators in the future. According to the You Can Fly AOPA Foundation, "By 2041, 602,000 new pilots and 610,000 technicians will be needed worldwide, according to Boeing's Pilot and Technician Outlook. Ironically, the number of airline transport pilot certificates issued by the Federal Aviation Administration in 2021 is 21% less than in 2012. This mismatch of supply and demand presents a tremendous opportunity for students to pursue aviation careers that they may not have previously considered."

www.HUHS.org

## Rearning All About Aviation From Former Pilot, Air Force Crew Chief

#### Racine Unified School District

The Aviation Academy at Horlick first took flight seven years ago and has been logging miles, routing its next course and preparing the pilots of the future ever since.

RUSD Educator and Former Air Force Crew Chief James Bucholtz worked within the Academies of Racine at Horlick High School to build the aviation program from the ground up six years ago with a goal of increasing interest in the field. He and fellow aviation instructor Robby Collum, a former pilot, teach aviation nomenclature, principles of flight, aircraft components and systems, aviation maintenance and mechanics and drones. Students are given the opportunity to do hands-on projects like build the leading edge of a wing out of aluminum, do engine tear downs, work on flight simulators and even focus on the Part 107 test to become certified remote pilots.

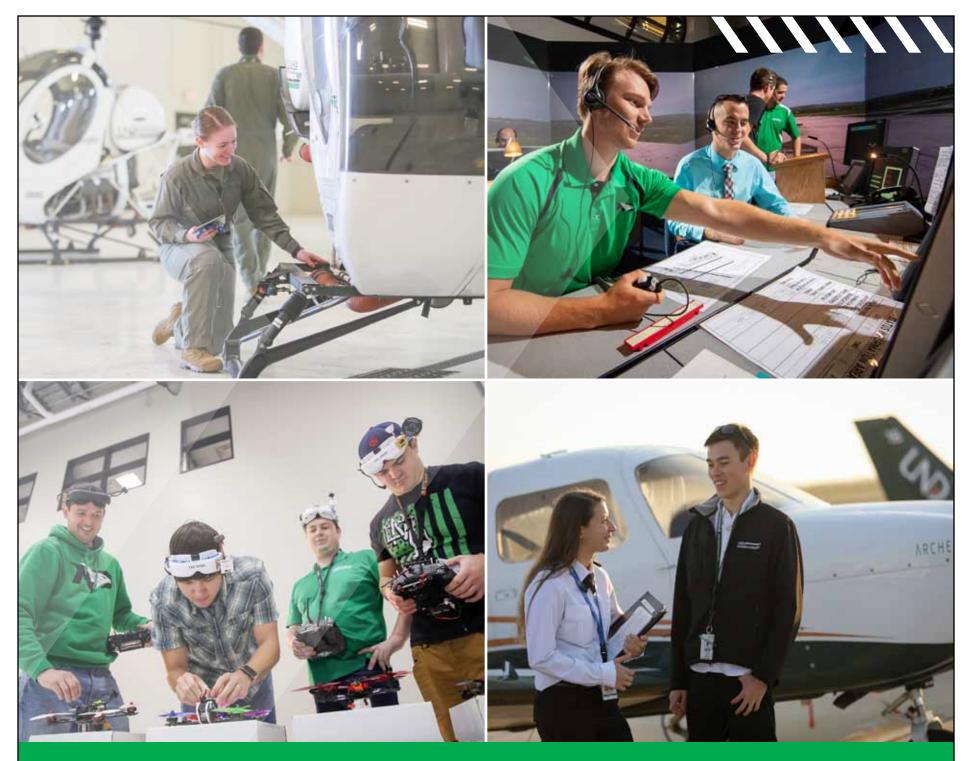
"What I was able to go through in college, they're able to do this at the high school level so that is giving them a head start on what they possibly would like to do in the future," said Collum.

The school just launched the drone program in the fall of 2021 after recognizing the endless career opportunities that await drone operators. From delivery companies to surveying, students who earn a Drone Pilot's License will have plenty of wellpaying, in-demand positions to explore after graduation.

Ultimately, that's the goal of this avia-



tion program — to connect what these students are learning in the classroom to real world opportunities that await them.



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