Technology and Engineering Education Shines at STMA

The learning spaces in the Technology and Engineering Education (TEE) department at St. Michael-Albertville High School are humming and buzzing with engaged students.

STMA Schools encourages students to attend college with 73 percent of high school students attending an Institute of Higher Education within 16 months of graduation. At the same time, STMA also encourages students to explore a pathway in Career and Technical Education (CTE) as it can lead students to postsecondary degrees or certificates, apprenticeships, or employment in the trades. The district has a longstanding tradition of embracing CTE opportunities and has strong programming in the content areas of Business, Family and Consumer Sciences, and Technology and Engineering Education.

STMA’s TEE program offers traditional “shop” courses such as Furniture Making, CADD, Welding and Fabricating, Machine Tool Technology, Basic Home Repair, and more. Numerous engineering courses are also offered such as Aviation 2: Drones, Introduction to Programming, Power and Energy Systems, Video Game Design, Project Lead the Way engineering courses, and others.

STMA TEE Teacher Roger Bovee said, “TEE offers students opportunities to

Thank you to all the AMSD members who helped shape our 2023 legislative platform, highlighted in this issue of the newsletter. I am looking forward to sharing the platform with our legislators at the annual session preview on Friday, Jan. 6 from 7:30 – 9:45 a.m. This year’s preview will be a hybrid format with the option to attend in person or participate virtually via Zoom. The program includes a legislative panel discussion with the chairs and leads of the House and Senate Education Finance Committees and we have also invited Gov. Walz to share some remarks. Happy holidays and I look forward to advocating for our students, schools, and communities with you in the New Year!

From the AMSD Chair, Crystal Brakke, Richfield Public Schools Board Member
explore traditional skills-based options such as woods and metals courses, but also allows students to explore courses with emergent topics that were not around a few years ago.” Students may construct a nightstand in the woodshop, but they may also take a course that allows them to explore aerospace engineering, program fabricating machines, and write computer code in languages such as python and C#. These diverse courses allow students to explore pathways and develop interests while in high school.

Fellow TEE Teacher Kris Rue added, “TEE provides students with opportunities to explore a topic of interest while learning a set of technical and employability skills that complement their academics.” TEE incorporates numerous “soft skills” employers are seeking such as critical thinking, communication, time management, creativity, and more!

STMA is also a member of Wright Technical Center (WTC), which offers a variety of CTE courses not offered at STMA High School. Students can take courses at nearby WTC free of charge. Courses include Automotive Technology, Construction Technology, Law Enforcement and Emergency Medical Responder, Health Sciences, and more. WTC Executive Director Brian Koslofsky noted, “With increased interest in STMA students seeking careers in the trades, WTC is proud to provide the advanced career and technical training necessary to enter directly into the workforce or pursue postsecondary degrees in each of the 12 programs offered.”

Out of the classroom, students can participate on STMA's Binary Battalion 7028 Robotics Team, which competes in the FIRST Robotics organization. This program has grown exponentially over the last few years and is a big source of school pride. While the program has adult mentors, it is the students that design, fabricate, and program the robot to competition specifications. Other teams of students are in charge of communication, marketing, securing donors, project management, and more. Software Engineer and Binary Battalion Mentor Travis Weber noted, “FIRST has done an amazing job turning engineering and technology into something exciting for our students and community to be involved in. Every year a new game is released and the team needs to design, build, and compete with a brand new robot, built specifically to meet the challenges of the new game.”

The STMA TEE program also addresses the critical workforce challenge Minnesota is currently facing. It teaches critical skills transferable to the workplace, college, and life. Many students have entered the trades after graduation and have remarked that their education in TEE courses prepared them. Former STMA student Andrew Schuster started his post-high school career as an HVAC technician, but recently decided to create his own flooring company. “We weren't taught how to install flooring, but what I learned in TEE courses gave me the know-how and the confidence to learn any trade,” Schuster stated.

STMA continues to put students first and is proud to offer high quality CTE programming. The district has been very intentional about providing high quality and rigorous coursework and programming so each and every student has unique opportunities to explore interests they may have not ever imagined.

This month’s member feature was submitted by Dr. Ann-Marie Foucault, Superintendent, St. Michael-Albertville Schools.
The 2023 legislative session convenes on Jan. 3 — and AMSD members are hopeful that it will be a monumental session.

An unprecedented state budget surplus offers state policymakers the opportunity to eliminate funding shortfalls, stabilize the funding system, and implement reforms to expand opportunities and personalize learning for students.

Over the past year and a half, school districts have worked to meet the myriad challenges brought in the wake of the COVID-19 pandemic: increased opportunity gaps, lost instructional time, achievement disparities, staff shortages, and student mental health to name just a few.

To address these challenges, the Association of Metropolitan School Districts Board of Directors adopted a legislative platform focused on four key areas:

**Stabilize and Strengthen Education Funding.** The time is now to directly address perhaps the greatest challenge for Minnesota’s public schools going back more than two decades: an unstable education funding system that has lost considerable ground to inflation. As the chart below shows, the basic formula would be $1,263 per pupil higher today had it simply kept pace with inflation since 2003.

![General Education Formula Allowance, 2003-2023](chart)

**Source:** MDE June 2022 Inflation Estimates

Our state’s school districts also must provide essential special education and English language learner programming — the costs of which are not being covered by the state and federal government. As a result, school districts “cross-subsidize” these expenses by using their general fund dollars, which leads

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Historic Surplus Offers Opportunity to Eliminate Cross-Subsidies

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to even greater budgetary shortfalls.

To address these and additional financial challenges, the 2023 AMSD Legislative Platform is calling on the Legislature to not only increase the basic formula allowance by 5 percent per year to cover the rising costs of providing quality instruction, but to also **index future education spending to inflation**. In addition, AMSD is calling on the state to fully fund the special education and English learner programs to eliminate the cross-subsidies that districts are paying from their general funds.

The platform further urges lawmakers to increase Local Optional Revenue to $840 per pupil and index it by average county wages to account for market-based geographic labor cost differentials, and to allow locally elected school boards to renew an existing operating referendum. AMSD also urges policymakers to enhance equalization of the operating referendum, local optional, and debt service levies to reduce taxpayer and education funding disparities.

**Enhance School Safety and Increase Mental Health Support.** The COVID-19 pandemic changed education as we know it — and exacerbated the already significant mental health challenges facing our students. Safe and modern school facilities remain a high priority and are essential for student learning.

The AMSD Legislative Platform looks to address these needs by asking lawmakers to increase the Safe Schools revenue from $36 to $108 per pupil through state aid and an equalized levy to allow school districts and intermediate school districts to hire additional support staff to address the growing mental health needs of our students. In addition, AMSD is urging the state to remove the per pupil limit in the Long-Term Facilities Maintenance Revenue program and expand allowable uses of revenue to allow school districts and intermediate school districts to enhance safety through security modifications to buildings, including remodeling and additions to existing space.

**Close Opportunity Gaps and Spur Innovation.** The COVID-19 pandemic exacerbated racial and income-based opportunity gaps. AMSD is calling on the Governor and Legislature to permanently fund the Voluntary Pre-K program and increase access to school-based pre-kindergarten programs for our state’s youngest learners.

Likewise, if the COVID-19 pandemic taught us anything, it’s that education spans beyond a physical learning environment. Within that backdrop, AMSD is calling on the Legislature to implement a competency-based education model in lieu of seat time and modernize the online learning law to expand opportunities for students and allow for personalized learning opportunities. The platform also urges lawmakers to allow locally elected school boards to establish the school calendar that best meets the needs of their students, staff, and community.

**Diversify the Educator Workforce and Address Shortage Areas.** A consistent message from our increasingly diverse student population is that they want to be taught by teachers who “look like them.” There is a critical need to diversify the educator workforce and address staff shortages. AMSD urges the Governor and legislators to create incentives and alternative pathways to attract, develop, and retain teachers, particularly teachers of color and teachers in shortage areas.

Finally, the 2023 AMSD Legislative Platform calls on state policymakers to invest in rigorous teacher induction and mentoring programs, as well as streamline the process to obtain a short-call substitute teaching license and maintain multiple pathways to teacher licensure.

- Link: View the AMSD 2023 Legislative Platform