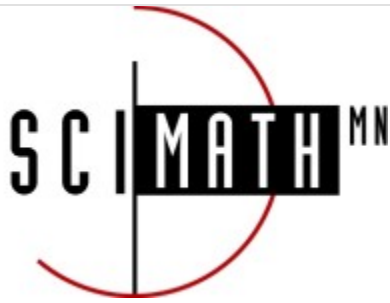


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Winter 2019 Newsletter

[Website](#) • [MN STEM Teacher Center](#) • [MN STEM Network](#)

Letter from the Executive Director

The leaves have largely turned and the temperatures are certainly dropping. While others cite spring as the season of new beginnings, I always feel fall offers us that chance too. I guess it's too many years as a student, teacher or parent of school age children participating in all the annual back to school rituals.

For SciMathMN, this year those new beginnings are centered on the new Minnesota academic standards in science. It's a big piece of work for teachers across the state because the new standards will be implemented across all grades over the next several years.

It's also going to be a significant effort for us to redevelop the STEM Teachers Center to support math, science, special education and English Language Learner teachers across the state in implementing engaging and rigorous lessons. We are committed to take this on as an organization to keep the valuable resource that the STEM Teacher Center is available and relevant.

The start of the school year also means greater reflection on how to best connect students and STEM education to career aspirations and community. That is the conversation we will engage at our annual conference, this year jointly with our friends at The Works museum, on December 3. The highlight of ***Transcending Boundaries: Connecting school, career, and Community*** will be our keynote speaker, Jayshree Seth, Corporate Scientist and Chief Science Officer with 3M discussing their recent international survey of public attitudes towards science. The 3M State of Science Index will provide us insights into how the general public perceives science at a time when that attitude is more important than it possibly ever has been. I hope you will join us at the conference and in the discussion.



Jim Davnie

Executive Director, SciMathMN



Transcending Boundaries:

Connecting School, Career, and Community Through STEM

Annual STEM Conference

Tuesday, December 3 at the University of Minnesota's Continuing Education Center, St. Paul

A joint conference convened by [SciMathMN](#) and [The Works Museum](#)

The Minnesota STEM ecosystem is changing, bringing both new challenges and opportunities. On December 3rd join other STEM professionals from the education, business, and academic spheres to engage, discuss, and learn about those challenges and the importance of our collective response. 3M Chief Corporate Scientist and Science Advocate will set the tone for the day reviewing the findings of 3M's international survey of public attitudes towards science. Many of the survey findings highlight the importance of reducing real and perceived barriers to science appreciation and STEM education—in order to ensure that we have a healthy pipeline of future scientists and engineers to solve tomorrow's challenges.

The day will be filled with insights and engaging sessions by STEM education providers and others from across the state. Breakout sessions are offered in computer science, connections between STEM and Career and Technical Education, on gender-equitable and culturally relevant teaching, and working to advance opportunities for students of color in STEM. Presenters include representatives from Million Women Mentors, SciGirls, Dunwoody Institute, and a number of school districts from across the state.

[Registration is available here.](#) Because we work better when we work together, we are offering discounts to teams from schools or businesses that send teams of three or more.

-- Thank you to our conference sponsors --

Platinum:

**Boston
Scientific**

Gold:

3M

Silver:

smiths medical
bringing technology to life

Sponsorship, exhibiting, and advertising opportunities are still available. Contact sam@theworks.org for more information.

STEM Day at the Fair



SciMathMN hosted the 10th annual STEM Day at the Fair on Thursday August 22, 2019. The event has continued to be popular with fair-goers, exhibitors, and the corporate sponsors. Estimated attendance outstripped past years with more than 17,000 people coming through the exhibit area and attending stage performances. Increased State Fair attendance certainly helped, with record crowds for opening day along with perfect weather. The increase in STEM Day participation however was significantly higher than the percentage increase in Fair attendance.

We had 33 different STEM exhibitors from industry, museums, professional societies, higher education, and organizations. The event included a stage presentation by the Minnesota Department of Education of Minnesota's Presidential Award in Math and Science Teaching finalists. Governor Walz declared the day "STEM Day at the Fair in Minnesota" and Minnesota IT Services Commissioner Tarek Tones formally presented the proclamation.

We're grateful for all our partners in creating another successful celebration of all things STEM and highlighting to Minnesotans the opportunities for their children to explore their interests and curiosity.

Give to the Max Day



We can't thank you enough for your ongoing and continued support of SciMathMN. We continue to touch the lives of students across the state of Minnesota and beyond. Your support allows us to keep advocating for STEM policies, promoting STEM collaboration(s), and hosting STEM events like STEM Day at the Fair and the Transcending Boundaries STEM Conference. SciMathMN's Minnesota STEM Teacher Center is a relied upon resource for teachers across Minnesota and beyond with over 40,000 people visiting the site each month. The impact is greater than we imagined when we created the site. We get notes like the one below regularly:

- "I have just been moved from 3rd Grade to 5th Grade and will be teaching math. These frameworks have been amazing in letting me know what will be expected of my students. To be honest, I am not sure what other resource would have given me such a comprehensive view of what needs to be mastered!! Thank you so much!!"

The state science education standards are changing in Minnesota. That said, these pending changes create a need for a full content review and revision to match the new standards as they are rolled out over the next several years. This revision ensures teachers have access to accurate information and can effectively apply these new standards in the classroom.

This year, we ask you to consider additional support by choosing SciMathMN as one of the organizations you support. Early giving is now open - [Donate Here](#).

SciMathMN Organizational Update



Please help us in welcoming five newly-elected members to the SciMathMN Board of Directors.

- Amy Blaubach – Curious Minds
- Scott Boyd – 3M
- Steve Erickson – Minnesota State @Detroit Lakes
- Melissa Huppert – Minnesota State @Mankato
- Enyinda Onunwor – St. Paul College

Our Board has a diversity of members from K-12, higher education, community organizations, business, and the MN Department of Education. We have representation from outstate Minnesota, including St. Cloud, Rochester, Detroit Lakes, and Mankato. Most of the effort in our organization is accomplished by volunteer Board and committee members. We participate in many different aspects of STEM to advocate for effective, engaging, and rigorous STEM education opportunities for all Minnesota students. Our work is carried out by eight different committees: Executive, Finance, Policy & Advocacy, Standards & Frameworks, Marketing & Communications, Fundraising, STEM Network, and STEM Day at the Fair.

We really appreciate all of the dedicated supporters that help to make this all happen. THANK YOU!



SciMathMN is very pleased to have a close partnership with STEM Forward in southeast Minnesota. Sarah Ness is the STEM Forward Program Manager and she is also on the SciMathMN Board of Directors.

[STEM Forward](#)* is a collaboration of 26 regional K-12 education districts, post-secondary/higher education/trade organizations, and employer partners (like IBM & Mayo Clinic). One of their priorities is creating opportunities and promoting experiences that connect stakeholders with resources to engage students in STEM education. Similar to SciMathMN, their mission is to promote STEM excellence in our K-12 schools and their vision is Inspiring the future of a STEM ready workforce.

STEM Forward promotes activities including teacher professional development, outstanding educator awards, educator forums (seeking to Increase diversity, equity & inclusion in STEM), engaging students and parents and preparing the STEM workforce for the future,

STEM Forward is part of the Southeast Service Cooperative (SSC). SSC is a public, non-profit agency in the 11-county southeast region of Minnesota. SSC was started through Minnesota legislation to serve public and private school districts, cities, counties, and other organizations

* Note: STEM Forward was previously known as Rochester Area Math Science Partnership (RAMSP). Their name was changed to STEM Forward effective July 1, 2018.

Presidential Award for Excellence in Math and Science Teaching

The 2017 and 2018 Presidential Award for Excellence in Math and Science Teaching (PAEMST) awardees were announced October 15th. Minnesota has four honorees, one for each year on the elementary and secondary level. They are Stacy Bartlett - Stillwater High School, Patricia Haugh - Wildwood Elementary School, Stillwater, Michael Larson - Chippewa Middle School, North Oaks, and David McGill - Capitol Hill Gifted and Talented Magnet School, St. Paul.

Congratulations and thank you to all for awardees and all the nominees for both years. This year the program is accepting nominations for teachers in K-6 programs. More at <https://www.paemst.org/>.



MESTA Conference



Minnesota Earth Science Teachers Association

The Minnesota Earth Science Teachers Association (MESTA) is having their annual conference Friday, February 7, 2020. The new Minnesota science standards includes lots of changes in earth science. See more and register to attend at <https://mnearthscience.weebly.com/>.

BITS & PIECES



Girls Who Code has announced a goal of expanding to 10,000 clubs nationwide. Clubs are free after school programs facilitated by most anyone with the commitment to work with 3rd-5th grade or 6th-12th grade girls. Free curriculum and support is provided and technology experience is not required. Find out more at <https://girlswhocode.com>.

> Data science versus calculus smack down. What direction for math education?

Recently a Stanford University Mathematics professor and a University of Chicago Economics professor co-authored an opinion piece in the Star Tribune, [Modern high school math should be about data science](#), asking the question whether future math education should be about data science rather than emphasizing algebra. A retired Minnesota physicist responded with [Math staples like calculus are still key to modern tasks](#). As Minnesota looks to reviewing its state academic standards in math in 2021-22, after a 15 year break, provocative debate like this will likely be a part of the discussion.

> Geographic Information Systems Day

November 13, 2019 has been designated international Geographic Information Systems Day #GISDay. The folks at ESRI (Environmental Systems Research Institute) have developed 101 ways you can participate and show off the benefits of GIS, enlighten and nurture your community, and tell meaningful stories. See more and get engaged at <https://www.gisday.com/en-us/overview>

> Requiring Peer Reviewed Science in the Classroom

The Massachusetts House of Representatives has referred to its Education Committee a bill limiting science education to "include only peer-reviewed and age-appropriate subject matter". Introduced by a Bedford, MA Democrat Ken Gordon who developed the bill with a Curry College science instructor Abby

Hafer. Hafer sees it as an effort to protect science education, teachers, and students. See and hear more at <https://tinyurl.com/y62z794n>

Our Mission: SciMathMN advocates for effective, engaging, and rigorous STEM education opportunities for all Minnesota students, preparing them for citizenship, career, and college.



Email us at: info@scimathmn.org