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Summer 2019 Newsletter

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Letter from the Executive Director

There is nothing like a Minnesota summer. The sun is glistening off the lake, the corn is ripe, bikes are everywhere, and the Twins are having an amazing season. But for us at SciMathMN the best day of summer is STEM Day at the Fair!

This year's celebration is again on opening day, Thursday, August 22. This is our tenth year taking over Dan Patch Park, filling it with STEM education providers and engaged businesses, and celebrating all things STEM. We're excited this year to have some new exhibitors, a full day of stage performances, and the support of our sponsors, including Boston Scientific, Smiths Medical, Seagate Technology, MTS Systems, MnDOT, Medtronic, and the University of St. Thomas.

Find more than 30 exhibitors with hands-on activities and interactive demonstrations designed for children of all ages. Stop on by to see the Minnesota Department of Transportation seat belt convincer, drive robots, try your hand at computer coding, explore bioremediation, build model rockets and mark the 50th anniversary of the Apollo 11 mission, construct a model that survives an earthquake simulator, and more.

Our stage includes a number of crowd favorites including the University of Minnesota's Physics' Force and Raptor Center, The Bakken Museum and the Science Museum of Minnesota. Returning this year is a new favorite Concordia Science Academy from Concordia College Moorhead. In addition, we will be recognize those amazing teachers who are Minnesota Finalists for the Presidential Award for Excellence in Math and Science Teaching. Please join us on opening day of the Minnesota State Fair and celebrate all things Minnesota and all things STEM.



Jim Davnie

Executive Director, SciMathMN

STEM Day at the Fair



[MN State Fair STEM Day Page](#)

[STEM Day Facebook](#)

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](#)

As our state becomes more diverse and our economy more technological it is clear that STEM education opportunities have to be more inclusive to connect with more learners and spark more imagination and innovation. Join us December 3rd for a day of discussion, engagement, and reflection. STEM education is being called onto change and Transcending Boundaries: Connecting School, Career, and Community Through STEM is an opportunity to join colleagues from Minnesota's STEM learning ecosystem to consider the role of STEM education in providing inclusive environments, adequate resources, and career-connected learning that prepare the next generation for the future.

- Transcending boundaries between organizations by creating partnerships that enrich Minnesota's STEM learning ecosystem.
- Transcending boundaries between learning landscapes by connecting in, out, and after-school time; formal and informal settings; and educational and workplace environments.
- Transcending boundaries between disciplines by engaging youth in authentic, human-centered learning that blends knowledge and practices from STEM subjects with arts, humanities, and other areas—and ensures that STEM learning is accessible and relevant for all.

Our keynote speaker is Dr. Jayshree Seth, 3M Corporate Scientist and Chief Science Advocate will explore the state of science in the world today. She will provide an overview of 3M's State of

Science Index, a survey of a global survey of more than 14,000 people in 14 countries to uncover what people think of science and how they perceive its impact on their daily lives. 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.

Click [here](#) to register today!. (Early rates apply.)

-- 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.

Minnesota K-12 Science Academic Standards Reach Final Steps



Minnesota Commissioner of Education Mary Cathryn Ricker has approved the final draft of the proposed revised K-12 Academic Standards in Science and accompanying benchmarks developed by the Standards Review Committee. The committee met throughout the 2018-19 academic year and developed three successive drafts of new standards. This final document may be used by educators for planning purposes. As of late July, the standards have been submitted to the rulemaking process. This represents the final formal step in the revision process. The rulemaking process involves the standards only and not the benchmarks. The date by which all schools must implement the new standards will be determined during rulemaking.

The commissioner is recommending that the year of full implementation be 2023-24. This is the year that the Minnesota Comprehensive Assessment (MCA-IV) would begin to assess the new standards. The first step in the formal rulemaking process for the proposed standards, the Request for Comments, was published in the State Register in late July. MDE will accept comments on the proposed rule until a Notice of Hearing or a Dual Notice of Adoption is published.

> For more information about how to submit a comment, please review the Request for Comments posted on MDE's K-12 academic standards rulemaking website. A copy of the proposed rules is available on the department's rulemaking [website](#).

> For more information about the rulemaking process, contact Kerstin Forsythe, 651-582-8583.

> For more information about the standards and the review process, contact John Olson, 651-582-8673

MnCOSE Conference



Hey Educators - The Minnesota Conference on Science Education will be held on November 7 - 9. Details are available [HERE](#).

Inspiring girls and women to explore STEM professions

Inspiring girls and women to explore STEM professions is critical to continued growth of STEM fields. Here are a few resources worth checking out.

> **STEM Camp for girls only** – [Project Scientist](#) is a leading summer STEM academy for girls, offering tailored science, technology, engineering, and math (STEM) curriculum for girls ages 4 to 12 on university campuses!

> **Works Museum - Girl Time** – On September 21st The Works Museum is hosting Girl Time a special stem day designed for girls and their families.

> **Podcast** – [Her Stem Story](#) – A weekly podcast about extraordinary stories of real women in the STEM fields.

> **American Assoc. of University Women (AAUW) in St. Cloud** - [Tech Savvy for Girls](#) - On Oct. 26 in St. Cloud, MN. Learn about careers in Science, Technology, Engineering and Math. Tech Savvy is a daylong STEM event filled with interactive workshops for girls in grades 5-9, and a simultaneous program for parents.



Annually a small group of Minnesota science and math teachers are nominated for highest honor for teachers in the STEM field, the Presidential Award for Excellence in Math and Science teaching.

This year Minnesota's award nominees in science are:

- Eric Friberg, Henry Sibley High School, Mendota Heights
- Marta Stoeckel-Rogers, Tartan High School, Oakdale
- Cynthia Welsh, Cloquet Middle School, Cloquet

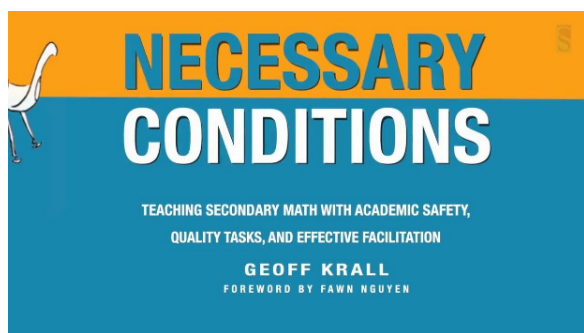
The award nominees in math are:

- Jake Johnson, John Marshall High School, Rochester
- Jessica Macken, Hiawatha Collegiate High School, Minneapolis

All nominees have been invited by the Minnesota Department of Education to STEM Day at the Fair where they will be recognized.



The National Center for Science Education teacher ambassadors program has developed five lessons on common student misconceptions of climate change - [Turning Misinformation Into Educational Opportunities: Climate Change](#).



MCTM is hosting a [virtual book study](#) in September through November of Geoff Krall's book *"Necessary Conditions: Teaching Secondary Math with Academic Safety, Quality Tasks and Effective Facilitation"*. Krall critiques the usual middle and high school math curriculum and instead proposes a coherent approach to secondary math pedagogy.



What do you get when you have a molecular biologist who believes science is for everybody and a materials scientist and engineer who want to connect science with pop culture? Check out this [Science for Everybody Podcast](#).



The Minnesota Department of Education (MDE) is hiring an STEM/Computer Science Integration Specialist ([Job ID #34508](#)). This position leads collaborative statewide initiatives that strengthen the capacity of Minnesota schools to provide high quality STEM and computer science education so that all students achieve state academic standards and are prepared with knowledge and skills for postsecondary and career success. Interested candidates should apply by August 19, 2019. For questions, contact Doug Paulson, 651-582-8471.

SkillsUSA Minnesota has an opening for a full time Executive Director ([Job Posting](#)). SkillsUSA Minnesota is part of a national nonprofit student



organization that provides educational programs, leadership opportunities, and competitions that support career and technical education (CTE).



Know an Outstanding Environmental Education educator? Check out the Minnesota Association for Environmental Education Awards Program Nomination page on the [MAEE website!](#)

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