



Spring 2019 Newsletter

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Letter from the Executive Director

As the school year begins to wind down, SciMathMN is going strong creating more opportunities for STEM education professionals and advocates to learn, share, network and collaborate.

First up is our joint conference with The Works, Minnesota's interactive children's museum focused on technology and engineering. "Transcending Boundaries," our June 12 conference, will bring together STEM practitioners, workforce development experts, and the business community to focus on strategies to transcend boundaries between organizations, between learning landscapes, and between disciplines towards providing inclusive environments, adequate resources, and career connected learning in order to better prepare young people for life-long learning and future careers.

Also, you won't want to miss the pre-conference social event June 11 at REM5 Virtual Reality Laboratory to see what the next generation of virtual reality technology can mean for learning and recreation.

STEM Day at the State Fair turns 10 this year! Our annual celebration of all things STEM returns to Dan Patch Park on the opening day of the Minnesota State Fair, August 22. If you are interested in exhibiting or appearing on our performance stage you can find the application at scimathmn.org.

Later this month the Minnesota Department of Education will release the final draft of the state academic standards in science. The review committee has been meeting since last fall, held a series of in person and online forums to gather public input, created drafts and are now completing the refinement of a final product. Earlier versions of the draft standards did propose some significant changes from current standards. You'll find the final draft later this month at the [MDE Science page](#).

Please remain engaged as these events and others unfold over the coming months.



Jim Davnie

Executive Director, SciMathMN

Annual STEM Conference



Transcending Boundaries:

Connecting School, Career, and Community Through STEM

Wednesday, June 12 at the University of Minnesota's Continuing Education Center, St. Paul

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

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. Conference attendees and presenters will include: preK-12, university, informal, community, and afterschool educators and leaders; industry partners, professional organizations, employers and funders; and policy makers and community members.

Registration is now open - click [here](#) for more information and to register.

-- Thank you to our conference sponsors --

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

STEM Social Hour

Meet up with colleagues from across the STEM ecosystem interested in education, workforce development, and equity and inclusion in STEM.

A pre-conference STEM Social will be held on June 11 from 4:30-7:30pm at [REM5VR Lab](#) in St. Louis Park. Join us for networking, interesting conversation, and to experience virtual reality. Appetizers and non-alcoholic beverages will be provided and there will be a cash bar. This event is free, though registration is required. You do not need to be attending the conference to come to this event. We hope to see you there!

Click [here](#) for more information and to sign up.

Hosted by [SciMathMN](#) and [The Works Museum](#)

Legislative Update



SciMathMN members met with legislators during our annual Day on the Hill. We were able to talk with key legislators, before the omnibus bills were put together, about supporting policies and programs that help with STEM programming in the state.

The 2019 Minnesota legislative session is about to enter its final stages. Over the last week, both the House and Senate have each passed their plans to fund our education system. During the next three weeks, both sides will try to reach a compromise between the two bills.

The House proposal spends an additional \$914 million dollars above current spending levels. A big part of that comes from increases to the funding formulas. The House bill would also invest dollars in career and technical education (CTE) programs across the state, which in turn would surely create increased opportunities for math and science learning. In addition to CTE courses, the House proposal also funds AP/IB STEM courses, College In The Schools programming, the Starbase program, and includes additional funding for MN Math Corps programs.

The Senate bill spends an additional \$95 million above current spending levels; much less than the House. While the House has increased spending in career and tech education, the Senate's proposal invests \$3 million towards Minnesota P-tech programs. The Senate's bill also supports AP/IB STEM courses, College In The Schools programming, and the continuation of base level funding for MN Math Corps programs - but does not contain funding for the Starbase program.

Neither the House or Senate bills include any new requirements for civics or other standards. Members of SciMathMN community were watching for these provisions as a reduction of elective credits would likely result in fewer students taking STEM courses. An earlier version of the House policy bill would have made Civics a requirement, but the new omnibus bill no longer contains that language.

Minnesota Teacher Licensure Process

The SciMathMN Board of Directors met with representatives from the new Minnesota Professional Educator Licensing and Standards Board (PELSB). We wanted to learn about the new Minnesota teacher licensure process and what has changed since the former Board of Teachers.

In 2017, the Minnesota Legislature adopted legislation that overhauled and transformed Minnesota's teacher licensing system. The changes came after the Minnesota Legislative Auditor issued a report finding that the state's teacher licensing laws were confusing and difficult to navigate for individuals seeking to be licensed as a Minnesota teacher.

The legislation created a [four-tiered licensure system](#) that set forth different requirements to obtain a Minnesota teaching license. The 2017 legislation also established the PELSB to implement and oversee the new licensure system.

State legislators opted to create PELSB by combining the Minnesota Board of Teachers, which oversaw licensure requirements and teacher ethics matters, and the Minnesota Department of Education's (MDE) Educator Licensing Division, which issued teaching licenses, into a single entity that was independent of MDE. PELSB now oversees teacher licensing requirements, teacher discipline, and the issuance of licenses for all Minnesota teachers. PELSB is an independent Minnesota state department with their own Executive Director.

PELSB began its operations on Jan. 1, 2018 and started issuing teaching licenses under the new tiered licensure system on July 1, 2018. PELSB plans to convert all Minnesota teaching licenses to the tiered licensure system beginning in July 2019.

In addition to its other rules, PELSB also engages in administrative rulemaking to set and update licensing and academic standards for teachers, which differ from the required standards for current K-12 students. Currently, the Standards of Effective Practice require Minnesota teachers to understand and be able to implement required student standards. PELSB plans to engage in rulemaking processes to ensure that teaching standards respond and align with required student standards as they change and evolve.

Cognitively Guided Instruction National Biennial Conference

June 24-26, 2019

www.cgiconference.com

2019



CGI MINNESOTA

Cognitively Guided Instruction is an over 30-year research base of how K-5 students develop their mathematical knowledge and how teachers use that knowledge to adjust instruction. The conference is being held June 24-26 at the Doubletree-Park Place Hotel in the West End Neighborhood of St. Louis Park. SciMathMN is one of the conference co-sponsors.

While the main conference is sold out, the [Research & Policy Forum Pre-Conference](#) on Monday June 24, from 8:30 - 1:00, still has openings. The Research & Policy Forum is intended for those who influence professional development decisions in PreK - 5 education systems to sit down with national school district and research personnel and review findings from key studies that capture student achievement data. Four levels of studies will be presented with opportunities to discuss implications for making decisions in school districts, informal education settings, and state policy settings. Large-scale longitudinal data from an experimental study in Central Florida, District-wide student achievement data from Little Rock, AR and San Diego, CA, school building data from a site in Washington State, and classroom data from sites in Minnesota and Columbus, OH will be presented. This is a chance to have a close look at what common elements are helping to bend the curve in the area of student achievement. Use this [registration link](#).



Independent consultant and SciMathMN board member Beth Murphy was recently named field editor for the National Science Teachers Association's newest journal, [Connected Science Learning](#) (CSL).

CSL is an online, open-access journal featuring peer-reviewed articles about effective programs and research that connect preK-12 STEM learning across in-school and out-of-school settings, with an emphasis on collaboration and co-creation across these learning environments.

CSL articles take advantage of the journal's online format to include links, visual and media components, and other supplemental resources to engage and inform readers. CSL's readers, authors, and reviewers hail from K-12 schools, colleges and universities, as well as STEM-related nonprofits, community organizations, businesses and professional organizations.

A number of Minnesota projects, programs, and organizations have been published in CSL, including SciGirls, Science Museum of Minnesota, Minnesota 4-H, Million Women Mentors MN, and STEM Pathways (a collaborative project of STARBASE Minnesota, The Bakken Museum, The Works Museum, Bell Museum, Minnesota Zoo and the Minneapolis Public Schools).

Check out these links to [sign up to receive monthly alerts](#) about new articles and [explore upcoming themes and submission guidelines](#). Please contact Beth directly at bethmurphyconsulting@gmail.com if you are interested in serving as a reviewer.

Grants for STEM Education Programs



nVent is a \$2.1 billion, high-performance electrical company that includes products from heat trace cables to critical equipment enclosures to labor-efficient fastening systems. Their Hoffman product line is located in Anoka, MN.

nVent is accepting applications for their first-ever grant cycle through June 3, 2019. To qualify, organizations must operate programs near nVent facilities in the U.S. Individual grants will range from \$5,000 - \$15,000. Click [here](#) to apply.

nVent believes a skilled workforce, one that reflects the diversity of their customers and communities, is critical to the ongoing success of their company and society as a whole. To help develop a healthy talent pipeline, nVent focuses a portion of its giving on STEM – science, technology, engineering and math – education opportunities for young people, particularly underrepresented and underprivileged groups in communities where nVent has business operations. nVent is especially interested in programs that offer hands-on learning experiences and introduce young people to STEM related career opportunities.



Email us at: info@scimathmn.org

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