



Winter 2016 Newsletter

MINNESOTA **STEM** NETWORK

POWERING STEM LEARNING AND INNOVATION ACROSS MINNESOTA

AN INITIATIVE OF **SCIMATH^{MN}**

Engaging stakeholders from
the broader community to advance
quality STEM education for all learners

Science - Technology - Engineering - Mathematics

See more below about:

***2016 Minnesota STEM Network
Conference: Powering STEM
Learning with Computational
Thinking
SAVE the DATE of April 5th***

***Guide to Quality STEM
Learning in Afterschool***

***Education Equity Resource
Center***

***Mouse IT Professional
Development***

Regional Network Update

***Free Engineering Education
Courses***

***STEP-UP Achieve Seeks
Employers of High School
Interns***

***STEM Infographics and STEM
Portal***

***Post STEM Programming at
www.mn-stem.com***

Ramp-Up to Readiness

***Energy from Renewables
Workshop***

Letter from the SciMathMN Executive Director

I hope that you are able to enjoy and appreciate this winter weather. Of course spring is a promise out in the distance, coming closer every day.

Spring to those of us affiliated with the Minnesota STEM Network means our annual conference. This year's will be our seventh conference, bringing educators, nonprofit staff, practitioners and business representatives together to share perspectives and explore ways to collaborate on STEM education across Minnesota. This year's conference on April 5, 2016 will focus on computational thinking.

This is an exciting topic in education across the U.S. right now. A number of large cities and states are looking at or have decided to require some sort of computer science across different grades, with some requiring a computer science class for high school graduation.

Of course computational thinking is much larger than computer science, a cross-curricular approach that both harnesses what technology can offer but also teaches the problem solving and creative skills that puts students in charge of the technology and teaches that technology is a tool useful in many areas of exploration. We can do so much today in assessing large volumes of data, of creating computer models, and designing systems. Additionally computational thinking can also be key in developing equally important skills around confidence in dealing with complexity and ambiguity, teaching persistence and communication. Our job now is to make sure that the powerful skills and insights needed to harness the possibility of computational thinking across the curriculum are available to students. I hope that you will join us on April 5th for this exciting conversation.

Jim Davnie
Executive Director
SciMathMN



Calendar Highlights

Social Media



SciMathMN advocates for effective, engaging, and rigorous STEM educational opportunities for all Minnesota students, preparing them for citizenship, career, and college.

Major initiatives include policymaker briefings, the [STEM Teacher Center](#) online resource and the Minnesota STEM Network.



The Minnesota STEM

Network is an outreach initiative of SciMathMN which

- increases engagement in education
- builds community among stakeholders
- promotes STEM
- shares practices and resources and
- improves communications.

Learn more about the [Minnesota STEM Network](#).

[Join the Network!](#)

Support SciMathMN in its advocacy for STEM



powered by **RAZOO**

7th Annual Minnesota STEM Network Conference Powering STEM Learning with Computational Thinking

Save the Date: Tuesday, April 5, 2016

Continuing Education and Conference Center St. Paul Campus of the University of Minnesota

The Minnesota STEM Network convenes its 7th annual conference on Tuesday, April 5, 2016 with a focus on computational thinking and its influential role in developing students' 21st century skills, engaging students from a variety of backgrounds in STEM, and preparing students for tomorrow's STEM workforce.

Computational thinking is a problem-solving process that includes analyzing data, generating models, creating simulations, and formulating problems in a way that applies computing to achieve effective solutions. This conference features active learning strategies that incorporate coding and problem-solving using computational thinking.

The conference strands are *decoding the digital terrain*, *addressing the digital divide*, and *integrating computer science with other STEM and non-STEM curricula*. For more information on the strands and topics, refer to the [mnstemnet page](#) of the [scimathmn.org](#) website. Consider what you can offer toward this topic and respond by February 26 to the [call for session proposals](#).

As a STEM Network, we can create the greatest impact when STEM stakeholders across P12 and higher education, business and industry, professional communities, and community organizations collaborate to create rich learning opportunities for more learners while revealing career pathways in STEM.

Registration: An EventBrite registration site will open in early February.

Thanks to our presenting partners for the 2016 conference:



Communicating the Value of STEM to the Public

OT STEM TO THE PUBLIC

The Minnesota High Tech Association has developed these infographics for sharing with the general public.

Please download and distribute! [Why STEM Education](#) and [Girls in STEM](#)

Calendar Highlights

MN Association for the Education of Young Children (MnAEYC) and the MN School-Age Care Alliance Joint Conference February 15-16, 2016

The MnAEYC-MnSACA Annual State Conference, "Expand the Circle," is the premier event for professionals educating children and youth, with nearly 1,000 participants attending.

Minnesota Conference on Science Education February 26 - 27, 2016

Duluth Entertainment Convention Center

[Register now](#) for the science education conference. Earlybird fees accepted for payments received by January 31. Keynote speaker will be meteorologist Paul Huttner.

TechFest 2016

Tuesday, February 27

9:00 - 4:00

9740 Grand Avenue South
Bloomington

Join in the fun of TechFest 2016, a family engineering and technology fair hosted by The Works. Tickets are \$8 prepaid, \$10 at the door and free to members.

Shaping Minnesota's Guide to Quality STEM Learning in Afterschool



Ignite Afterschool, Minnesota's Afterschool Network, is convening STEM and afterschool stakeholders in regional meetings across Minnesota to shape a draft guide to effective practices for STEM learning in afterschool. Join your regional STEM and afterschool peers to participate in defining a common understanding of quality STEM learning in afterschool, which will connect and benefit both fields.

These meetings are ideal for both STEM and afterschool stakeholders, including educators, youth workers, program coordinators, funders, and systems-level leaders in both the STEM and afterschool fields. The meetings will be held at the following locations and dates:

Detroit Lakes (Northwest MN): Feb 24th, 11am - 1pm at Detroit Lakes Public Library.
REGISTER AT: <https://stem-afterschool-mn-nw.eventbrite.com>

Duluth (Northeast MN): Feb 25th, 9:30am - 11:30am at Duluth YMCA.
REGISTER AT: <https://stem-afterschool-mn-ne.eventbrite.com>

Rochester (Southeast MN): March 4th, 1:00 - 3:00pm at Northrop Community Education.
REGISTER AT: <https://stem-afterschool-mn-se.eventbrite.com>

For more information on advancing quality STEM learning in afterschool visit www.igniteafterschool.org.

Regional Network Update

Northeast Minnesota

Moe Benda, a chemical engineer, UM Duluth faculty member and co-chair of the Northeast Region leadership team, has been creating *MoeZone* STEM challenges for more than a year and publishing them in the Iron Range's *Hometown Focus* newspaper.



Moe has published 36 challenges and are now archived and easily accessed at the [Hometown Focus online](#).

Southeast Minnesota

The Rochester Area Math Science Partnership celebrated its 25th anniversary on January 13, 2016. Congratulations, RAMSP!

Education Equity Resource Center

Explore gap.umn.edu

The University of Minnesota's new [Educational Equity Resource Center](#) aims to engage with educators to share University research and programs, help translate

IMA Public Lectures

February 23, 2016, 7pm

March 10, 2016, 7pm

2-650 Moos Tower

515 Delaware Street SE

The Institute for Mathematics and Its Applications (IMA) at the UofM will host two public lectures this spring on big data (February 23) and modeling tsunamis (March 10) For more information, visit ima.umn.edu.

Follow us on Twitter and LinkedIn

Follow [@MNSTEMNetwork](https://twitter.com/MNSTEMNetwork) for the latest in STEM news and events.

Post announcements on [MN STEM Network group](https://www.linkedin.com/groups/11571172) on



Post and Find STEM Programming at www.mn-stem.com

Find the Best Science on the Web via Sparticl.org



Ramp-Up to Readiness Program

Ramp-Up to Readiness is a school-wide advisory program that helps students explore growing career fields (including STEM) and

research to practice, and enhance collaboration. The website includes Resources for K-12 educators such as professional development and field trip opportunities, curriculum, and other classroom resources. Questions, contact [Julie Sweitzer](mailto:Julie.Sweitzer@state.mn.us).

Mouse IT Curriculum, Professional Development Available for 200 MN High Schools

The Minnesota Department of Education (MDE) has announced that Mouse technology curriculum, professional development and web-based learning platform is available for 200 high schools throughout Minnesota. Mouse will provide an innovative and engaging opportunity for high school students to graduate with certification of the skills and competencies that continue to fuel future technology jobs and innovation throughout the state. [Link to more information](#).

Teachers Can Take Free Engineering-Education Courses

Thanks to a \$100,000 Google sponsorship, as well as additional money from private donors, educators will be able to take full-credit engineering-education courses for free this spring and summer at the University of St. Thomas. The three-credit courses offered during June are "Engineering in the P-12 Classroom," "Digital Electronics and Computing Systems" and "Material Science and Engineering." Information on the courses, scholarships, and application process is at <http://www.stthomas.edu/cee/>

STEP-UP Achieve Recruiting More Employers of STEM Interns

[STEP-UP Achieve](#), a program of [AchieveMpls](#), is seeking more STEM businesses and industries in the Twin Cities metropolitan area who would host a high school intern in summer 2016. STEP-UP Achieve recruits talented and highly-motivated youth and trains them with requisite skills that enable them to positively contribute to their organizations. STEP-UP interns bring energy and creativity to their workplaces.

Employers provide internships for middle or high school interns for 6-10 weeks at 15-40 hours per week. STEP-UP Achieve makes initial matches, and sends qualified candidates for employers to interview before hiring.

Ninety-six per cent of supervisors say the program was a success at their company and that their interns made a valuable contribution to their workplace. Consider the impact that an internship will have on a young person and contact [Matthew Vue](mailto:Matthew.Vue@step-up-achieve.org) or 612-455-1568.



map their pathway to success beyond high school.

Over 150 Minnesota middle and high schools now incorporate the Ramp-Up curriculum. Schools devote a 30-minute advisory to building skills and knowledge in five pillars of post-secondary success: personal and social, academic, career, financial, and admissions readiness.

Schools interested in learning more about Ramp-Up may contact [Jennifer Kunze](#).



SciMathMN
www.scimathmn.org
Email: info@scimathmn.org

Workshop on “Energy from Renewables: Envisioning a Brighter Future”

Saturday, April 16, 2016

University of Minnesota Campus, Minneapolis

Save the date for a workshop discussing our use of energy and its environmental consequences leading to climate change and harnessing energy from renewables. The conference will benefit high school teachers, students, college faculty and instructors and citizens engaged in governmental/city organizations, civic and senior-citizen groups, faith-based and health organizations concerned about the environment.

For more information: [Institute on the Environment](#) (IonE) at University of Minnesota

[Click to view this email in a browser](#)

If you no longer wish to receive these emails, please reply to this message with "Unsubscribe" in the subject line or simply click on the following link:
[Unsubscribe](#)

SciMathMN
c/o Science Museum of Minnesota
120 W. Kellogg Blvd.
St. Paul, Minnesota 55102
US

[Read](#) the VerticalResponse marketing policy.

vertical DELIVERED BY
response
Try It Free Today!