



## Science Update

April 2021

This periodic e-newsletter from the [Minn. Dept. of Education](#) (MDE) is sent to a few email lists, including the [Minn. Science Teachers Assn.](#) (MnSTA) and district/organization contacts. We encourage you to forward this to other teachers and science leaders. Archived editions are at [this MnSTA site](#). See MDE contacts at the end of this document. Frequent updates and new events are posted on the MnSTA Facebook page and Twitter feed @mnsta1.



Good time to have students go outside to make observations and contribute data  
[SciStarter.org](#)

***Note: MDE does not endorse any resource or event that is not conducted by MDE.***

\* indicates an item that was not in the previous edition or has been substantially updated.

## News

### **\*Flexibility for Out-of-Field Permissions for Science Teachers**

A newly adopted resolution by the MN Professional Educator Licensing and Standards Board (PELSB) provides additional flexibilities for science teachers who will need an out-of-field permission (OFP) to teach in a science content area or grade level outside of the scope of their existing license(s) due to the impact of the proposed science standards.

Specifically, the resolution allows school districts to seek an out-of-field permission (OFP) for impacted Tier 3 and Tier 4 science teachers without needing to meet the OFP posting requirements. Additionally, these OFPs will not be counted toward the lifetime total for those Tier 3 or Tier 4 science teachers affected by the science changes.

This resolution will be in effect until the Board adopts new rules to determine long-term options for teachers impacted by the changes to the K-12 science standards. [Summary Document](#), [Full Resolution](#), [SPELSB statement on current science licensure](#).

### **\*Potential of Science Standards Implementation Delay**

You may have heard that MDE and the legislature are considering delaying standards implementation dates. There are ongoing discussions and hearings with competing bills in the House and Senate. Any official announcements from MDE will come through the Superintendents' Mailing.

### **\*Invitation to be an MCA Item Writer**

We would like to invite you to apply to be part of Building Capacity for Science Assessment: Science MCA-IV Item Writing Workshop in the summer of 2021. The workshop will be 4 1/2 days total, starting with a half-day virtual training on June 25, followed by virtual meetings on July 12-13 and July 26-27. Approximately 15-20 additional hours may be needed outside of these dates to complete the writing assignments. This summer, we are focused

on writing engaging grade-level phenomena tied to the 2019 Minnesota Science Standards and also generating questions for each phenomenon. We hope that the summer 2021 workshop goals generate creative thinking, engage with your unique teaching approaches, and build a repository of engaging phenomena for the Science MCA-IV.

If you are interested in being part of this MCA-IV item writer workshop this year, contact us for more information or enter your information by April 23, 2021 at this location

[www.surveymonkey.com/r/2021MCAWriter](http://www.surveymonkey.com/r/2021MCAWriter).

We encourage any teachers and educators interested in becoming a Science item writer to apply. We want to grow the impact teachers have on our Science MCA-IV assessment and look forward to engaging with more teachers around the state. If you have colleagues that might be interested in participating, please share this information.

#### **\*Teachers needed for MCA Review Committees**

Educator MCA Review Committees are an opportunity for educators to give feedback on statewide assessments for each subject, and ensure test content and question type align closely with best practices in classroom instruction. Committees of educators who are experienced in specific content areas will meet throughout various phases of the test development process.

[Sign up](#) now to submit your email to the Educator Committee Register. Signing up is not a commitment, but will add your email to our database. When committees are needed, an invitation is sent to eligible participants in the database announcing specific dates and times, and then you may accept or decline the invite. More information is at the [MCA Review Committee webpage](#)

#### **\*Input Needed: Understand Native Minnesota project**



In October 2019, the Shakopee Mdewakanton Sioux Community launched [Understand Native Minnesota](#), a campaign to improve the Native American narrative in Minnesota schools. Like with any project, we need to understand where we're at in order to set goals for where we want to be. This means hearing from folks around the state who are engaging in this work to learn what's working, where you need support, and how we can collaborate in the future to make learning better for all students.

We have created three surveys for stakeholders - [educators](#), [curriculum leads](#), and [education groups/non-profits](#). Your thoughtful input is appreciated in any or all surveys as appropriate. All data collected will be kept anonymous and entry to the giveaway at the end of the survey is optional. Surveys will be collected through June 15, 2021. Data collected will be compiled into a final report in Fall 2021 and be used to identify next steps for the campaign.

#### **\* MN Zoo Evaluation of new science curriculum**

The Minnesota Zoo is working with a graduate student team at the University of Minnesota to evaluate the zoo's new science curriculum, "Operation Curiosity and Wonder". If you have used or are familiar with this curriculum for distance or hybrid learning, please help us out by filling out [this survey](#). Your response will be kept anonymous, and provide valuable feedback as the zoo evaluates this new curriculum along with opportunities for developing similar science programming in the future.

#### **Returning to Classroom Instruction in Science**

The guidance that was given by MDE and the Minnesota Dept. of Health for Arts classes that are held in specific spaces can also be applied to science and STEM instruction.

Arts classes that cannot operate in the classroom may continue to be held indoors outside of individual classrooms if they are able to follow the Music Activities Guidance and the health and safety measures laid out for art classes in the [2020-21 Planning Guide for Schools](#). If the guidance cannot be followed, arts classes must be held in the classroom or outside (weather permitting).

The National Science Teachers Association has some [safety considerations](#) in returning to science classrooms and laboratories, especially in this blog: [Safety Recommendations for Opening the new School Year](#).

## Teacher Events and Workshops

### **\*MnCOSE 20 – Continue the Conversation – Virtual PD**

*Did you attend MnSTA Conference on Science Education last November? Join in conversations as we unite our teaching community on central themes and ideas imperative to advancing our work as science educators. (If you did not attend MnCOSE20, you can still [register HERE](#))*

For each session, watch the recording of the MnCOSE Session and then join a discussion with the presenter. [Registration Link for both sessions](#).

#### **April – State of Science – STEM Education**

Dr. Jayshree Seth, Chief Science Advocate of 3M, and Megan Earnest will join us to unpack perceptions of science, its impact on their daily lives, perceived barriers to STEM education, and positioning our learners as future scientists and engineers poised to solve the complex and global humanitarian challenges we face.

[MnCOSE session Recording](#), Discussion sessions April 19 7 PM or April 22, 3:30 PM

#### **May – Engaging Students in Science Investigations using GRC.**

Brett Moulding, NGSS and NRC Framework writer, and Lee Schmitt will join us to discuss three dimensional teaching and lesson design using the framework of Gather, Reason and Communicate.

[MnCOSE session Recording](#), Discussion sessions May 10, 7 PM or May 13, 3:30 PM

### **\*Teach Outdoors! Minnesota virtual workshops, Wednesdays in April 3:30 – 4:30**

Join experienced environmental educators in Minnesota to learn how you can integrate opportunities to teach outdoors into your curriculum. All activities and lesson shared are connected to Minnesota Academic Standards. CEUs will be included. Sessions will be recorded and available. [Information and Registration](#).

- April 7: Climate Change for Kids and Adults
- April 14: Great Lakes Bio Blitz
- April 21: Birding
- April 28: Poetry and Wonder Wander

[More resources for teaching outdoors!](#)



### **\* Call to Action for Science Education, April 8**

This virtual event by the National Academies of Sciences, Engineering, and Medicine on April 8, 2021 from 2:30 PM – 4:30 PM CDT will give you the opportunity to share your ideas on the future of science education K-16 and the most important issues for state and national policy-makers to consider so that students can be prepared to face the global challenges of the future both as engaged participants in society and in their careers. [More information and registration](#).

### **\*Making Computer Science Available to All Students, Webinar April 15 noon**

Join Code.org for a special conversation with Arne Duncan, former U.S. Secretary of Education, about making computer science education available to all students. We'll discuss why it's so important for students to learn computer science and how to effectively and equitably provide all students that opportunity in your school and district. You will receive information about their [Professional Learning Program](#) for teachers and how you can access scholarships to participate at no cost to your school. [Registration](#).

### **Dinner on the Lakes – virtual talk series**

Please join us for Dinner on the Lakes, an informal talk series developed by educators for educators and their families. We invite you to cozy up to your computer whether you are working late or eating dinner with your family to listen and participate in the topic of the evening. Participants will learn about upcoming events and opportunities and can network with each other in this growing community of practice. [Register](#)

All talks are on the third Tuesday of the month from 6 p.m. to 7 p.m.

- April 20: Exploring Vernal Pools with Students, Billie Waugh, South Terrace Elementary School
- May 18: Citizen Science in the Classroom, Jennifer Flynn, Hermantown Elementary School

### **iNaturalist and the Great Lakes Blitz to Enhance your Curriculum, April 7 and 14, 4 PM, Online**

Join Minnesota and Wisconsin Sea Grant for a two session workshop series that explores ways to use iNaturalist to enhance your curriculum across a variety of subjects. During the course of this two day series learn how to use iNaturalist to integrate nature observation into art, cultural appreciation, geography, math, writing, biology and more. Learn about how you can use the Great Lakes BioBlitz to increase Great Lakes literacy in your learners. [Program intro video](#). [Workshop information and Registration](#)

### **NSTA Engage Virtual Conference April 12 – May 8**

Experience NSTA's premier event of the year with Engage: Spring21. The conference will feature inspiring keynote presentations, motivating sessions, unconferences, Marketplace Partner workshops, thought leadership, and so much more. Participate in rich, real-time dialogue with like-minded educators from around the country, listen to expert speakers on your own schedule, and drop in on lively social networking events at Engage: Spring21. All sessions will be available in the on-demand library for 90 days following the event. [More Information](#)



- Elementary April 12 – 17
- Middle Level April 19 – 24
- High School April 26 – May 1
- Postsecondary and Informal Education May 3 – 8

### **\*Jeffers Birding Institute, April 17 and 24, Savage**

This workshop from 8 am – 4 pm at McColl Pond ELC for K-7 teachers will teach you to use birds to engage students in science content use 3-dimensional teaching to develop students ability to observe, investigate and make claims form evidence, while learn outdoors! [Information](#).

### **\*Earth Day Events April 20 – 23, Online**

EARTHDAY.ORG along with lead organizers Education International, Hip Hop Caucus and Earth Uprising are organizing three separate parallel climate action summits on April 20, 21, and 22. The parallel summits are focused respectively on climate literacy, environmental justice and a broad range of youth-led climate-focused issues. April 20 is the global youth climate summit. On April 21, Education International will lead the "Teach for the Planet: Global Education Summit." The Earth Day Live digital event occurs on April 22. [More Information](#).

**\*Outdoor Learning Conference for Early Childhood, April 23, Online**

Join Dodge Nature Preschool for a half-day, virtual conference designed to encourage outdoor learning in early childhood! Find inspiration, engage in dialogue with colleagues, and gain practical ideas to help incorporate nature-based education into your classroom and school environment. [Agenda and registration](#)

**\*Confluence of Cultures: Exploring Dakota Lands and Waters, May 4, 6 PM, Online**

Explore the region surrounding the confluence of the Mississippi and Minnesota rivers, which is at the heart of the Dakota homelands and known as Bdóte. Presenters: Lyndon Torstenson, Park Ranger, National Park Service, Mississippi National River & Recreation Area. Mishaila Bowman (Sisseton Wahpeton Dakota), Lower Phalen Creek Project. John Shepard, Center for Global Environmental Education [Information and Registration](#)

**Opportunity to strengthen your Earth Science credentials, May 19 – July 1, online**

Earth Science Essentials, an advanced online review of Earth Science for high school and middle school science teachers, will be offered May 19 – July 1, 2021 through Minnesota State University Moorhead. The course materials are available free for self-study. Participation in the course via tuition provides college undergraduate or graduate credit. [Learn more](#)

**\*3D Printing for STEM Educator Pedagogy and Workforce Preparation, May 20, 10:30 AM - noon, Online**

The Minnesota State Engineering Center of Excellence and select Minnesota State faculty are proud to provide an engaging and interactive FREE educator conversation and explanation to demystify 3D printing for pedagogy, workforce preparation and provide solutions for industry. [Information.](#)

**\*Illustrating the Impact of Air Masses on Weather, for 6<sup>th</sup> grade teachers, May 22, noon-2 PM**



The unusually hot weather we had over Easter weekend—and the precipitation and dramatic drop in temperatures that subsequently occurred -- are a great illustration of the powerful role that air masses have on our weather. Such dramatic changes are also often the basis of atmospheric inversions which contribute to the deterioration of air quality. But what can be more thrilling than to be able to correlate such phenomena with real-time data and/or maps—including satellite imagery-- that can be found on the Internet? Dr. Amy Lilienfeld, President and Founder of Circle of Illumination Science Education,

invites 6<sup>th</sup> grade teachers in Minnesota to participate in a webinar that will help them learn how to harness the power of such web sites to track such changes while deepening their content mastery of atmospheric science and helping them get ideas for many hands-on activities in data collection and visualization. For more information, Amy Lilienfeld [amy@circleofillumination.com](mailto:amy@circleofillumination.com)

**What IS Social Justice Teaching in the Science Classroom?  
NSTA virtual Miniseries, June 5, 12, 19, 26 (March dates sold out)**

Join NSTA for this special four-part, interactive, virtual miniseries, which is jointly hosted by the Association for Multicultural Science Education (AMSE) and NSTA's Committee on Multicultural / Equity in Science Education. Scheduled throughout the month of March, this miniseries is your source for resources and strategies for motivating and enhancing the participation of traditionally underrepresented students in science through the lens of equity and social justice. All sessions are Saturdays 10:30 – 1:00 Central Time. [Information](#)



- June 5: Designing for Rightful Presence in K-12 Science Teaching and Learning
- June 12: Critical Affinity Spaces for Science Educators



- June 19: Toward Field-Based Science Education that Contributes to Just, Sustainable and Culturally Thriving Worlds
- June 26: Defining Social Justice in our Science Classroom

### **Compass to Nature: Teaching in the Outdoor Classroom, June 9 – July 21, 2 – 4 PM, webinars**

This weekly distance learning series features the innovative [Compass to Nature](#), a proven-effective method to teaching outdoors. Join us as we explore the four cardinal directions for the Compass to Nature: place-based education, phenology, journals, and naturalists, plus the magnetic force of the sense of wonder, through indoor presentations and outdoor field exercises to build or enhance your skills. We will also examine impact to teachers, students, and families; school curriculum and academic standards; and distance education options for outdoor classrooms. The series will culminate with the opportunity to reflect, plan, and share how you can apply the Compass to Nature to your site. Presented by the Prairie Wetland Learning Center in Fergus Falls.

[Information and Registration.](#)

### **\*Community Resilience to Climate Change workshop for educators, July 5 – 29**

NOAA Planet Stewards, Artist Boat and the NOAA Flower Garden Banks National Marine Sanctuary welcome you to join us during the month of July 2021 from anywhere you can Zoom for an interdisciplinary 70% independent learning/self-paced virtual workshop; The event is meant for all educators. It will focus on climate change impacts to human and natural communities, and the actions you can take to build resilience in light of these impacts. [More Information and Registration](#)

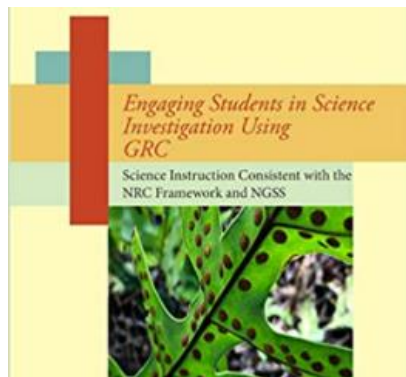


### **VisChem: Conceptual Understanding in Chemistry, July 6-9. 12-14, Online**

The VisChem Approach uses carefully produced dynamic visualizations with teaching strategies informed by a cognitive learning model. Participants who complete the institute receive a \$1000 stipend. Application Deadline March 31. [More Information](#)

### **\*Engaging Students in Investigation using GRC, elementary July 12 – 13, secondary July 14-15, online**

Join us for two days of professional learning that will model effective science instruction that is consistent with research about how students learn. These sessions, based on the *Gather, Reason, and Communicate* framework, will model effective ways to engage students and teachers in doing science Investigations in person and virtually, which leads to deeper science knowledge using instructional strategies consistent with the new Minnesota Science Education Standards.



Brett Moulding and Peter McLaren, NGSS and Framework writers, will lead this workshop, live online. Participants will receive a copy of the book *Engaging Students in Science Investigation Using GRC* and the materials to do the investigations during the PD. The book describes how to engage students in doing three-dimensional science investigations aligned to standards. The book and professional development provide insights and recommendations for how to effectively use a set of over 360 investigations to teach to the new standards. The investigations were developed by teachers working in collaboration with Brett Moulding and presented in a useful lesson plan format. For background on the GRC framework and to see lessons go to [Phenomenal GRC Lessons](#)

- Elementary: July 12 & 13, Online 8:30 PM – 3:30PM, [Registration](#)
- Secondary: July 14 & 15, Online 8:30 PM – 3:30PM, [Registration](#)
- Fee: \$250 includes workshop investigation materials and a book mailed to you.
- Both workshops have limited capacity.

## 6<sup>th</sup> grade Earth Science Professional Development for the new standards, in person

This will be a one week, bootcamp style, regional workshop that incorporates earth and space science content of the new standards, as well as teach you how to develop three-dimensional units. We'll help you choose phenomena, write storylines and lessons, and walk you through investigations that you can use to engage your students. We will provide ongoing support as you begin your journey and create regional cohorts so you aren't doing it alone.

- Bemidji, July 26-30
- Metro area, August 2 – 6
- Metro area, August 9 – 13 (new session added!)

The workshop is organized by the Minnesota Science Teachers Association and led by well-known Minnesota earth science teachers and professors. [Article introducing the program](#). [Workshop Information and application](#).

For **other workshops and programs** that teach earth science concepts [see this collection](#).

## \*Mississippi River Institute, July 26-28, Online

Join us from home this summer, as the Hamline Center for Global and Environmental Education presents its acclaimed [Mississippi River Institute](#) as a hybrid model combining online content and outdoor hands-on investigations close to home.

The virtual River Institute is a live, interactive three-day professional development opportunity taking place **July 26-28**, with modules online and outside from 8 am - 4 pm. It inspires, educates, and prepares 3rd - 8th grade teachers to engage students in STEM disciplines through experiential, inquiry-based investigations of local watersheds.

Full scholarships are provided for teachers admitted to the program, as well as 18 CEUs, classroom resources, and the option to purchase two graduate-level credits at a reduced rate. [Information and registration](#).



## Summer Institute for Climate Change Education *Regrounding in Truth*, July 28-30, online



Gain the skills, tools, and resources to teach climate change in all subject areas. This three-day experience from Climate Generation will include networking with a national audience, as well as one full day dedicated to working, planning, and learning with regional cohorts. On-screen time will be segmented, with the opportunity to choose which sessions you would like to attend. [Information and Registration](#)

## Equity in STEM education professional development

The IDEAL Center at the Science Museum of Minnesota invites school and district leadership teams to apply for the [2021–2022 PAGE District Leadership Program](#), which will be offered virtually this year. PAGE is dedicated to addressing achievement disparities in STEM education on the basis of gender, race, class, ethnicity, disability, language, and sexual orientation at a systems level. PAGE is an 11-day program with a five-day online institute during the summer of 2021, and three two-day online Colloquia during the 2021–2022 school year. [Information and registration](#)

## Teacher and School Awards and Opportunities

### ACS Hach – High School Chemistry Grant

Teachers can request up to \$ 1,500 to be applied toward Laboratory Equipment and Supplies, Instructional Materials, Professional Development and Student – Conducted Field Studies. [Information and application](#) The deadline April 14, 2021.

### Other Awards

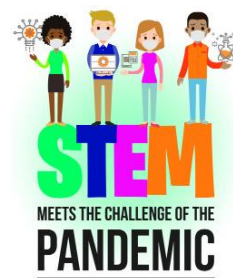
Check out information about the following awards programs and consider applying.

- [National Board Certification for Teachers](#)
- [National Science Teachers Assn. Awards](#)
- [National Association of Biology Teachers Awards](#)

## School Programs and Resources

### STEM Meets the Challenge of the Pandemic

The free educational resources available at [stemleadstheway.org](http://stemleadstheway.org) share the ways that engineers, scientists, and other STEM professionals are using science, engineering, technology and mathematics to find innovative solutions to the challenges introduced by COVID-19.



- The [Explore STEM Careers](#) webpage, features video profiles of engineers, scientists, and other STEM professionals who are making the world a better place by designing cutting-edge solutions to problems and answering important questions introduced by the pandemic
- The [Educator Resources](#) webpage provides tips and ideas for engaging students in reflection and discussion. Secondary teachers can request virtual mentoring experiences with STEM professionals.
- The project culminates with a [Virtual Professional Summit](#) May 12- 13, with discounts for educators.

### \*NOVA – “Picture a Scientist, April 14, Public TV

This program will examine the discrimination women face in the field of Science. Go to the [PBS website](#) for more information and to see a trailer for Picture a Scientist. Also check out [the "Secret Life of Scientists and Engineers"](#) series of short videos exploring women in STEM fields.

### \*Women Scientists and the Development of the COVID-19 Vaccine

[Video and articles.](#)

### \*Chemistry Field Day competition, April 12 – 16, online

Creighton University Department of Chemistry and Biochemistry is hosting a Virtual Chemistry Field Day Competition. We hope that you consider making this a part of your day(s) during the week of April 12th-16th. Your students will complete the competition online using the Kahoots learning platform. There is no cost for registration. If you are unable to complete all 5 activities that is ok. We hope this provides a fun and different opportunity for your students.

The Virtual Chemistry Field Day Competition was created for 9-12th grade groups of 4. However you can complete the competition as a solo competitor or a complete class. We will be sending out samples with instructions to complete 2 of the activities as wet labs in your facilities. Please register by as soon as possible as we have limited amount of kits available. Deadline April 8. [Information and Registration](#)

### \*NCSE Curriculum Study, and Raven the Science Maven



The National Center for Science Education is recruiting middle and high school science teachers to participate in a two-year curriculum study starting in July 2021. Selected teachers will have the opportunity to field-test our teacher-created nature of science, evolution, and climate change curricula. Participants will be eligible for a \$4000 stipend. [Information and Registration](#). Deadline April 25

During this upcoming Earth Week (April 19-23), NCSE will partner with [Raven the Science Maven](#) to encourage and support teachers who are hesitant to teach climate change in their classrooms. We've worked with her to create a series of special climate education TikTok videos. [Example](#)



### **\*KidWind Challenge**

Using the KidWind 2.0 Wind Turbine Simulator students will construct and test turbines and wind farms in a totally online environment. The only requirement is an internet-connected computer (tablets are not supported). There are three divisions (4-5, 6-8, 9-12). Students can participate alone or on a team. Teams will be free to use the simulator till June 30th.

On May 8th the KidWind Simulation Challenge will close and the top 10 teams will be awarded over \$2000 in prizes. Registration for the KidWind Simulation Challenge is \$25 per coach, with each coach able to register up to 5 students (they can participate as a team or individuals). Scholarships are available - depends on location and need. [More Information](#).

### **Minnesota on the Map – GIS competition**

Create an online GIS (Geographic Information System) story map on any topic of interest within the borders of Minnesota. Research the topic, map geographic findings, and present findings in a story map entry. Each school or club submits up to five entries to the state competition. Winners at the state level go on to national competition. Registration is due April 9 and the entries deadline is May 21. [Information and Registration](#). The site also has training for students. All Minnesota schools and youth organizations are eligible for free ArcGIS Online Accounts. [GIS Information](#) from the Department of Education.

### **Outdoor Lessons for K-12 Students**

Teaching outdoors is easier than you think. The outdoors is a place to inspire learning, get fresh air, lift moods, and reduce virus transmission. Use this [outdoor lessons webpage](#) to find grab-and-go lessons, student handouts, and videos that teachers can use RIGHT NOW to teach outdoors. The website organizes lessons and resources by elementary, middle, and high school levels. Developed by the Minnesota Department of Natural Resources.

### **Chemistry education resources for teachers**

The American Chemical Society is offering various educational resources for free during the pandemic. These include activities, lessons, books, videos, organizations and mentoring. [ACS resources](#)

## **Student Programs, Awards and Competitions**

### **\*Summer Research Product for Indigenous HS students**

The *We are Stardust* project provides a stipend to high school students and/or their teachers who participate in a 10 week research program. It has an indigenous, interdisciplinary focus that combines science, art and culture. The program is a collaboration of Minnesota's [Native Skywatchers](#) program with UC- Santa Cruz Summer Internship Program. Students that apply for the Native Skywatchers scholarship do not have to pay the \$4000

fee to participate and their selection is guaranteed. In addition, they receive a \$750 stipend for participating. [Information](#). **Deadline April 10.** Contact Annette Lee [aslee17@gmail.com](mailto:aslee17@gmail.com) about the scholarship!

**\*Stormwater Stewardship at Home and in the Classroom, Introduction April 8, 6 PM**

Join us on Tuesday, April 6 from 6-7pm CST for an introduction to CGEE's Adopt-a-Drain learning and stewardship resources for schools and families. The online [Adopt-a-Drain Interactive](#) program introduces the natural and man-made systems that enable water to flow through our communities, how pollution happens and how adopting a storm drain is key to cleaner waterways.

Adopt-a-Drain is the perfect Earth Day stewardship project for classrooms, students, individuals and families! Learn how to prevent damage to lakes, rivers and streams from runoff pollution in your local neighborhood, and how to bring stormwater stewardship into the classroom with [Adopt-a-Drain Interactive](#)'s engaging multimedia activities for learners.

**\* Lake Superior Youth Symposium, May 14 Online**



Registration is now open for the 2021 virtual Lake Superior Youth Symposium! The symposium, hosted by Northern Michigan University, is open to all 8th-12th grade students and is scheduled for May 14. All the information you need to know and to register can be found on the [LSYS Website](#).

This year's virtual conference will allow the flexibility for your students to pick and choose sessions of interest throughout the day, as your schedules allow. Given the various daily schedules of the many participating schools, attendance for the entire day is not required. We

are also working hard to ensure that we'll have video archives of all sessions, which will allow for on-demand access to any of the sessions afterward.

The registration is a flat \$50 per teacher/school. This fee opens attendance for any students/classes you hope to have participate.

**\*Farm-to-Fork Sustainable Agriculture for Healthy Food and Environment, June 15- Aug 15**

This program from Minnesota State, Mankato and South Dakota State University provides the following:

- Learn about sustainable agricultural principles and practices.
- Develop skills on how to measure soil health and water quality.
- Farm visits and discussion with the owners of sustainable farms and farm-to-fork establishments.

[Information and Registration](#)



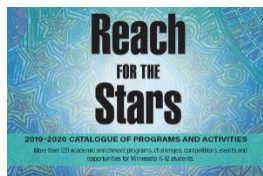
**Go4Brains for high School Students, August 2-6, Minneapolis**

[Go4Brains](#) is a week long, paid, summer experience at the University of Minnesota for Twin Cities high school students from historically underrepresented groups. The goal is to learn more and get excited about Neuroscience (brains!) and related careers. The application process is a single page plus one reference. [Program Information](#). Application deadline is March 15

**Science and Engineering Competitions**

Check out the follow program for your classes and individual students.

- [Science Bowl](#) – middle and high school
- [Minnesota Science Olympiad](#) – middle and high school
- [Science and Engineering Fair](#) – middle and high school
- [FIRST Lego League](#), [FIRST Tech Challenge](#), [FIRST Robotics](#)- All grades
- [Supermileage Challenge](#) - High school
- [Real World Design Challenge](#) - High school
- [Toshiba/NSTA ExploraVision](#) - Classroom based for all grades
- [NSTA Angela Award](#) – girls grades 5 – 8
- [MN Scholars of Distinction](#) – high school
- [National Youth Science Camp](#) – two high school seniors are selected as Minnesota Delegates



### Minnesota Programs and Competitions

Many competitions, out-of-school programs and field trip opportunities are listed in the [Reach for the Stars Catalog of Programs and Activities](#).

---

### MDE Science Contacts:

[John Olson](#), Science Content Specialist,  
[Jim Wood](#), Science Assessment Specialist  
[Judi Iverson](#), Science Assessment Specialist  
[Sarah Carter](#), STEM and Computer Science Specialist  
 Send submissions for the Science Update to John Olson

### Other Minnesota Links:

[Minn. Dept. of Education Science Page](#)  
[Minn. Science Teachers Association](#)  
[Frameworks for MN Science and Mathematics Standards](#) a.k.a. STEM Teacher Center  
[Get – STEM](#) Connections between schools and businesses  
[EE Portal @MAEE](#) environmental education resources  
[Minnesota Academy of Science](#): Science Fair, Science Bowl and other competitions  
[Mn DNR Education website](#): Curriculum, professional development, posters, etc.  
[Youth Eco Solutions](#) (YES!) – Statewide, youth-led program for hands-on eco related projects