

# MnSTA Newsletter

Volume 59 No.4 A Quarterly Publication of the Minnesota Science Teachers Association Inc. Summer 2021

## Save the Date MnCOSE21

Clear Vision for Science Education:  
All Students, All Standards, All Voices  
Thursday, Oct 28 - Monday, Nov 1, 2021

We're excited to announce that MnCOSE21 will be a virtual event!

We welcome participants from all around the state to our second virtual MnSTA Conference on Science Education. This fall we will be providing toolkits to encourage local gatherings of educators to participate in the rich networking of MnCOSE in smaller groups without the travel and lodging expense of a full in-person conference.

Consider sharing all that you have learned in this past year as we gather together to grow!

We have developed a new set of conference strands to capture this unique moment in our science education experience. Each strand will be facilitated by pairs of dedicated strand leaders. Each session will be hosted live by our strand leaders as they welcome and support each presenter through their session.

Our 2021 MnCOSE strands include some traditional content-focused strands as well as some focusing on the teaching and learning pedagogy within science content and across grade bands. In addition to their placement in relevant strands, each MnCOSE21 session will also be tagged with the relevant science content and most appropriate grade range.

### *MnCOSE21 Strands are:*

- \*Life Sciences
- \*Physical Sciences (Chemistry & Physics)
- \*Earth & Space Sciences
- \*Leveraging Technology: Lessons Learned from Distance Learning

\*Diversity and Inclusion: Equity, Culturally Responsive Teaching, Social-Emotional Learning in the Science Classroom

\*Science Communities: Learning, Growing, and Connecting with Others

\*Exhibitor Sessions: Presentations by Exhibitors on Products and Services

We are intentionally embedding grade level identification of sessions across all strands, so that educators of pre-K, elementary, middle, high, and 12+ students can identify sessions most helpful to them across the conference.

Presentation Proposals will be accepted here soon! For more information email Eric Koser [webmaster@mnsta.org](mailto:webmaster@mnsta.org)



MnCOSE20's Video Content will REMAIN AVAILABLE via the Whova app (Google/Android, Apple) through June 30, 2021! [More Information.](#)

# President's Message-Angela Osuji



It is that time for year that our calendars are filled with graduations, send-offs, retirements, among others. We remember and celebrate all the time we had together and how fast the interaction went by. Here at MnSTA,

we are grateful for the time we had with our departing board members and celebrate their commitment to science and science education in Minnesota and MnSTA. We are particularly grateful that despite the Global pandemic that forced us into social distancing, we were able to find space and time to interact virtually, even as we longed for the time when that interaction would be in person and with the varied diversity of all our being.

As the MnSTA president, my cultural orientation relied so much on that in-person interaction so much and I missed that a lot. I missed not having the side talk with Josh Tharaldson, the MnSTA outgoing president, during our board meetings and the efficiency with which he ran the meetings. I am grateful he left me with so much -both in writing and in speech. The same goes to Regional Directors: Katie Melgaard, Regions 1 & 2 Northwest, Jennifer Gagner, Region 3 Northeast, Lisa Pingrey, Region 5 Northcentral, David Borslien, Region 9 South as well as our Discipline Directors: Garret Bitker, Alternative. Education. & Charter School, Haley Kalina, Earth Science. I will miss their support but more so their commitment to elevating science education for ALL. My wish is that they will continue to find ways to support MnSTA in all their science education endeavors as we welcome their replacement.

It is also that time of year when we are rounding up one school year, gearing up for some rest or planning for the next. As we look back on the year, may we experience the joy that comes with accomplishing difficult tasks as this year was particularly difficult in multiple ways. To all the MnSTA members and all science teachers, MnSTA extends their heartfelt gratitude for all the work you did and will continue doing to advance science education for ALL.

As we look forward to next year, may I remind us of our commitment to our 2018-2026 Strategic Plan.

From the document I quote: Our overall goal has been clear: to preserve and enhance excellence in science education in the state of Minnesota. Importantly, we must acknowledge that as an organization, there are areas of improvement required, too. In alignment with the Mission of MnSTA we have developed four equally important goals that will move the organization forward until 2026:

Goal 1: Strengthen science teaching and learning in Minnesota

Goal 2: Strengthen Leadership in Science Education in Minnesota

Goal 3: Promote equity, inclusion and accessibility in science education

Goal 4: Enhance MnSTA as a Professional Science Education Organization

Looking forward, our Science Education Conference: MNCOSE21 is gearing up to be as exciting as our MNCOSE20 if not more. MNCOSE21 will be held virtually Oct 28 - Nov 1, 2021. Please plan to be with us on those days and look for updates on our website: <https://www.mnsta.org/index.html>.

Finally, I am excited to welcome MnSTA President-Elect: Jill Jensen. She is currently a 6th and 7th Grade Science Teacher in ISD196. Jill has been a science educator for the past 26 years, 14 years at the middle school level, and 12 years as a K-5 science specialist. Her term as President-elect will start July 1, 2021, with her term as President beginning July 1, 2022. Jill believes among others, that we all do science. Each of us, including our students, do acts of science daily. Based on these beliefs, her overarching goal for MnSTA is to increase collaboration and communication across our organization to help us DO science, share ideas and learn together. Please join me in congratulating Jill Jensen as our new President-elect of MnSTA.

The MnSTA Newsletter is published four times each year by the Minnesota Science Teachers Association, Inc. Articles, opinions, book reviews and other information pertinent to Minnesota teachers are welcome. Please limit submission to 1 typed page, e-mail preferred (text file please).

Deadlines for submission of articles are:

Fall ..... August 1st Winter ..... November 1st  
Spring ..... February 1st Summer ..... April 1st

Send all correspondence regarding the newsletter to:

Jerry Wenzel e-mail: [jerrywenzel@brainerd.net](mailto:jerrywenzel@brainerd.net)

The MnSTA Newsletter is an exempt program service provided to the membership. A membership form can be found at the back of this newsletter

# Teacher Feature-Sarah Garrett

Our featured teacher in this issue of the MnSTA newsletter is Sarah Garrett. Sarah teaches at Jackson Middle School. She has been teaching in this district (and at JMS) for 13 years. She currently teaches 7th grade life science and the 8th grade environmental science elective class.

Sarah's background is in genetics and she loves teaching it. Her 7th grade students are so interested in the topic and she gets many interesting questions and anecdotes which makes it relatable and fun. One of her favorite lessons to teach in the Genetics Unit is the "Ugly Baby" lab, where students model "passing on their genes to their children" with the flip of the coin. Besides the usual discussions of dominant over recessive traits, they get to talk about the fact that you can't pick which genes you are going to give to your child and how the model is a great one to show that. They also get to talk about how the model assumes that everyone is heterozygous for all traits, which is not really realistic, and students end up with "babies" that do not look like themselves at all. At the end, they usually create a large wall of baby faces, and have discussions about genetic diversity. They just "get it" and it's usually a ton of fun!

In my environmental science curriculum, She loves having her students design experiments to gather data and find out answers for themselves. Her favorite lessons to teach students involve this STEM approach to the environment. In the beginning of the year, she usually does a couple of lessons surrounding the importance of pollinators, what is a pollinator, and how to tell the difference between bees, wasps, flies, and "others" like beetles and butterflies. Then the students design a testable question that they want to answer about the pollinator population in our area. Some of the best lessons have been on those days that they do the pollinator collections, and she can watch a student who is terrified around bees go from watching how she collects them, to having enough courage to collect them themselves, to being comfortable enough to collect a bee without her help. That excites her and brings her joy!

When asked to give a flavor of her teaching style, she responds, "I like to think of my teaching style as part storyteller, part comedian, and part tour guide. Stories bring us together, and get us interested in new topics. I love to weave a good story into my classes to get kids interested. Laughter makes this crazy world bearable. I use humor to make my students smile as they learn about science...even if that makes me look like a complete fool sometimes.

(Like dressing up like Mrs. Frizzle from the Magic School Bus, for instance) I say "tour guide" because I really like to encourage my students to "jump into science and get messy" - whether that is truly getting their hands dirty planting trees, to jumping into a situation that they might not ever do, like wearing waders and catching macroinvertebrates in a lake, or going on a field trip to learn about wastewater treatment. I try to always encourage new experiences as a "tour guide teacher".



Sarah Garrett helping her 8th graders catch fish with a seine net on a spring field trip to Cedar Creek Ecosystem Science Reserve. Students created a testable question about freshwater fish, collected data, made graphs and conclusions, and then presented their findings to their classmates on this field trip.

**Bringing Science Supplies and Living Specimens Directly To You Since 1936!**

**We Ship Anywhere In Minnesota Overnight**

Call for Your FREE Catalog!  
1.800.544.5901 (toll free)  
651.484.4488 (local)  
[tmbs@tmbs.com](mailto:tmbs@tmbs.com)



# Teacher Feature-Beth Keskey

Our featured teacher for this issue of the MnSTA newsletter is Beth Keskey. For the past six years Beth has taught 7th grade Life Science, 8th grade Earth Science, and recently implemented the new Minnesota NGSS science standards as an 8th grade Physical Science educator at Dassel-Cokato Middle School.

Beth's teaching experiences have brought her to several districts including, Medford Public School in Medford, Minnesota, the Army and Navy Academy in Carlsbad, California, and Dassel-Cokato Middle School in Cokato, Minnesota. These locations as well as key volunteer experiences she has had have shaped her approach to education. In Australia, she became acquainted with the Aboriginal customs, where formal education is not a cultural priority—leading to detrimental effects on the quality of education. In Costa Rica, she volunteered in a bilingual school where community relationships lead to a deeper sense of place. In Borneo, Malaysia, while pursuing her Masters of Arts (MA) in Biological Science through the Global Field Program (GFP) at Miami University, Oxford, she witnessed the impacts of community-based conservation and how health and wellness and an appreciation for the natural world is seen through the lens of cultural norms, society, and religious practices. All of which influence the relationships diverse groups have with conservation science, technology, and engineering. Throughout these experiences she has developed a passion for diversity, cultural awareness, and promoting the voices of her students as well as honed a greater sense of what it means for diverse groups to engage in science.

Beth absolutely love science and strive to bring her personal experiences, enthusiasm, and energy into her teaching in order to build relationships and an excitement for the nature of science. As with many educators, her teaching style is always evolving; however, certain practices and methodologies are at the heart of her instruction. She strives to promote self learning, innovation, creativity, and critical thinking through participatory education and inquiry based learning. She states, "Science is not a spectator sport and students learn best when they can take an active role in their learning and pursue their personal curiosities. This often begins with facilitating a positive environment where ideas can be shared and by simply allowing students the time to wonder and ask questions."

An example where she puts her teaching style into action is through citizen science. In one of her favorite educational activities, she provide a phenology lesson that was recently published in the Spring 2021 journal, Kaleidoscope: Educator Voices and Perspectives. She used student observations to contribute data to Nature's Notebook, a citizen science online platform. During this unit students acted as scientists by collecting their own data, asking questions, and bringing the concept of climate change to their very own backyard. This involved making year-long observations of particular seasonal events using the plants around her school. It was very exciting to see students take a new perspective on what plants can tell us and how climate change shows up in more locations than the melting polar ice caps or bleached coral reefs. Both of which her students have never seen nor see those changes happening directly to their community. This allowed them to see climate change through their own data collections in their very own backyard. She believe that student driven learning, developing science skills, and collaborating with peers is a fundamental part of education and understanding the nature of science.

Principal Alisa Johnson had this to say about Beth, "Beth is a wonderful science teacher that works hard to engage her students in their learning while still continuing to be a learner herself! She facilitates lessons that challenge the students and encourage high level thinking! She collaborates with her colleagues and is always looking to make her lessons the best they can be!"



Beth has developed a passion for diversity and cultural awareness.

# Department of Education



John Olson is the science specialist for the Department of education. He will keep us updated on science education in the MnSTA newsletter.

## How should we select instructional materials to support the new science standards?

An important aspect of quality science teaching and learning is the support provided by instructional materials. Some teachers are good at designing their own instructional plans by weaving in several resources. However, that process requires a lot of work and expertise.

Many teachers tend to rely on instructional materials selected by the district to guide their instruction. Hence, the choices made by the school district can have a large impact on student learning. Also, the experience of selecting instructional materials can serve as professional learning for participants.

In this article, I will address instructional materials used throughout the school year to support instruction. Sometimes people call this "the curriculum." However I prefer to use "curriculum" to refer to the entire plans for instruction.

When looking at the available instructional materials from vendors you will encounter many claims:

- "aligned to NGSS or even Minnesota standards:"
- "research-based"
- "use three-dimensional instruction" our uses NGSS colors
- "written by NGSS authors" or "content experts"
- "was evaluated by the EQIP rubric" or an independent agency

Relying on vendor claims can be risky. Often vendors have repackaged old materials to make them appear to support three-dimensional instruction and fit certain sets of standards. Here are some suggestions for considerations in selecting instructional materials.

Participants in the selection process should understand and embrace the vision for science education that underpins the new Minnesota science standards.

Less
Students being taught about
Science knowledge separated from science skills
Reading textbooks and answering questions at the end of the chapter
Learning ideas disconnected from their experiences
Oversimplification for students who are less able

More
Students figuring it out (explaining phenomena)
Students using science and engineering practices (questioning, investigating, arguing) and crosscutting concepts to develop explanations and concepts
Students using multiple sources of information to summarize ideas
Exploring phenomena related to daily life and curiosities
Support all students to engage in sophisticated science and engineering practices.

An expanded view of this vision is available at this link: <https://drive.google.com/drive/folders/1MCFX3dXyHNNxx89Ikpvr-r-mmWijk-j4F>

How well the instructional materials support good pedagogy aligned with this vision is an important consideration in selecting instructional materials. This is more important than whether the materials "align" with all benchmarks at a particular grade or course. Supplemental materials can be adapted to support particular concepts.

Participants should also consider other science and district learning goals, such as

- developing curiosity and a desire for life-long learning,
- preparing for citizenship and careers,
- valuing science and caring for the earth,
- culturally responsive teaching, and
- integrating with other content areas and future instruction.

Participants should also understand the qualities of well-designed lessons and instructional units. They can work together to design a sample unit for their grade range using some of the design ideas from the previous newsletter. Another approach is to review units evaluated by a panel of NGSS reviewers at the NGSS Design Badge project.

A well-developed and researched process that districts can use to guide their work is NextGen\_TIME. This is a suite of tools and processes to evaluate

How should we select instructional materials..cont. on pg 6

How should we select instructional materials....cont. fr pg 5

and implement instructional materials. It includes processes to

- Prepare for selection
- Prescreen materials based on a small number of important criteria
- Paperscreen to evaluate prescreened materials based on rubrics
- Pilot of the use of the materials
- Plan for implementation

This process involves a large amount of time, but it is well worth the effort to support good learning. If time is not available, districts can use some of the tools in a shortened process.

There are projects to develop open-education resource materials that can be adapted without cost. Several states are working together with researchers on the OpenSciEd project. These materials go through a rigorous process of development, pilot testing, and professional development for users. Several units are available for grades 6-8. They use a sequence based on an integrated approach rather than the discipline specific assignment to grade levels of the Minnesota benchmarks. The project will develop high school and elementary units in the upcoming years.

## Science Update

### News

#### **Rulemaking for the Science Standards – Public Comment May 17 – June 17**

The Minnesota Department of Education is engaged in the formal rulemaking process for the Minnesota K-12 Academic Standards in Science. [The Dual Notice of Adoption was published on Monday, May 17, 2021.](#) The department will accept comments and valid hearing requests on the proposed rule until June 17, 2021. If the department receives 25 or more valid hearing requests, a virtual rulemaking hearing will be held at 9:30 a.m. on July 23, 2021. If less than 25 valid hearing requests are received, the department will cancel the virtual rulemaking hearing. For more information about how to submit a comment or a valid hearing request, please review the [Dual Notice of Adoption](#). The proposed rule language is posted on the [Science Rulemaking webpage](#). For more information on the work of the science standards committee and the review process, visit the [K-12 Academic Standards in Science webpage](#).

If you want to receive rulemaking updates on this project, please contact the department's rulemaking coordinator, Kerstin Forsythe at [mde.govrelations@state.mn.us](mailto:mde.govrelations@state.mn.us) or 651-582-8583 to be added to the rulemaking notification email list.

#### **Science Standards Implementation Delay**

To provide flexibility for districts in implementing new standards as the state emerges from COVID-19, MDE will be delaying the required implementation of the Science standards to the 2024-25 school year. The rulemaking process to allow flexibility for implementation needs. With science in the rulemaking process, MDE will use that opportunity to update the proposed rule language to reflect the new implementation date. Since the MCAs are based on the standards, the Science MCA – IV will be delayed until the spring of 2025 for grades five, eight, and high school. Although districts are not required to begin work to implement the standards, MDE will continue to engage in test specifications and development to be prepared for the MCA – IVs in spring of 2025.

#### **Transition to the new Standards**

With the delay of the date for full implementation of the new standards, districts and teachers will need to decide if they want to delay the transition timeline they may have developed. One factor they may be considering in that the MCA exam will not transition to the new standards until spring 2025. However the new standards and the shifts in pedagogy associated with them are likely to result in improved science learning and it would be wise to give students those opportunities as soon as is feasible. Plus the improved learning may help them perform better on the current MCA. Districts have several factors to consider in their transition plans, including staffing, curriculum materials, and time for planning. [Read John Olson's article](#) about the standards delay and planning for the transition.

#### **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.

## Teacher Events and Workshops

#### **What IS Social Justice Teaching in the Science Classroom?**

NSTA virtual Miniseries, June 5, 12, 19, 26

Join NSTA for this special four-part, interactive, virtual miniseries. 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](#).

#### **Teaching Climate Actions, starting June 14, online**

Led by 2811 and Young Innovators Climate-KIC, the [Climate Action Academy](#) is an interactive online certification designed for educators who seek to empower youth with the knowledge and skills to transform climate concern into action. Participants receive resources about education for climate action, are guided to accelerate climate action in their schools, join an international network of sustainability-minded teachers, and earn a certificate from Climate-KIC. There are 10 hours of online modules over the course of 4 weeks on:

- Understanding the climate crisis globally and locally
- Trends in climate education
- Tools and activities for climate action
- Climate action lessons and project integration

#### **Hornel Gifted and Talented Education Symposium, June 15-17, Online**

The annual Hornel Foundation Gifted and Talented Education Symposium provides an opportunity for educators, counselors, administrators and parents to gain greater understanding of the unique needs of gifted and high potential learners. Participants attend in-depth sessions focusing on foundational knowledge, creativity, curriculum strategies, and social/emotional needs of gifted and high potential learners provided by the field's finest regionally, nationally and internationally recognized presenters. All are welcome to register and attend the symposium. [Information and Registration](#)

#### **Three-Dimensional Instruction Workshops**

These free workshops for Minnesota educators are provided by Activate Learning, a curriculum publisher.

Three-Dimensional Learning to Promote Student Engagement, June 16, 8 – 10 AM, online. Led by Joe Krajcik, Framework writer and IQWST curriculum author. A Framework for K-12 Science Education provides a new vision for science teaching and learning that focuses science teaching on helping students figure out phenomena and design solutions to problems. Classrooms incorporating three-dimensional learning will have students build models, design investigations, share ideas, develop explanations, and argue using evidence. Teachers will develop a deeper understanding of three-dimensional learning and the value of figuring out phenomena. [Registration](#)

## Department of Education Opportunities

**Implementing Three-Dimensional Learning: A Curriculum Coordinator Viewpoint, June 21, 8:30 – 10 AM, online.**

Led by Michelle Tindall, K-12 Coordinator for Math and Science. A well-articulated science program that promotes three-dimensional learning and building understanding over time can help transform science instruction and promote students' science understanding. She will share the changes that occurred when teachers incorporated three-dimensional learning into classroom instruction. She will illustrate using a lesson from Activate Learning's IQWST curriculum. [Registration.](#)

**Exploring Biotech and Biofuels, June 17-18, NDSU, Grand Forks, in-person**

The Exploring Biotech and Biofuels [Nourish the Future](#) workshop introduces teachers to the ways biotech skills are incorporated into agriculture through bioscience and biofuels labs. In this 2-day workshop, participants will:

- create and test biofuels
- learn about plant science and pollination
- examine GMO facts, myths, and modern methods
- perform DNA extraction and PCR
- work through a water quality bioinformatics case study

Day 1 will conclude with a dinner where participants can interact with industry experts to learn more about modern agriculture and its connections to biotech and biofuels. Day 2 includes field trips to National Ag Genotyping Center and Tharaldson Ethanol. Participants will receive \$350 worth of supplies for classroom use. Hotel room and meals will be provided.

**The Water Cycle in Weather, June 21, Online**

Circle of Illumination Science Education invites both 8th grade and 6th grade teachers in Minnesota to participate in a webinar noon – 3 PM that will help deepen their understanding of the water cycle—in particular the processes of condensation and evaporation. They will also learn a simple way to determine the relative humidity of the air, harness the power of some real-time weather web sites and get many ideas for hands-on activities involving data and data manipulation/interpretation. A tool for measuring relative humidity will be sent to participants who successfully complete three problems. [Information and Registration](#)

**Virtual Mississippi River Delta Institute, June 21-23, Online**

This free professional development program from Hamline University combines online and hands-on activities to inspire, educate and prepare 3rd-8th grade teachers to engage students in STEM disciplines through experiential, inquiry-based investigations. It will incorporate expert presentations about Delta environments, rich media resources ready for use with students, community-building with other educators, and independent offline explorations.

[Information and Registration.](#)

**KidWind Virtual Recharge Academy, June 24, online.**

The REcharge Academy is an educator training program focused around renewable energy. The intensive training blends lectures from experts and tours of energy facilities with replicable hands-on K-12 lessons to give educators content as well as context. Everyone participating must attend the virtual launch on Thursday, June 24th. After that, you can choose your own adventure by attending full day elective sessions based on your own interests and availability. We have lots of scholarships and support for this event so if you are interested apply now! All scholarships will be distributed by May 15th.

[Information.](#)

**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](#)

**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 strat-

## Department of Education Opportunities

egies 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.

**Outdoor Classroom Workshops from Jeffers Foundation, in-person**

Engage students in science content using 3-dimensional teaching as suggested by state and national standards throughout the year to develop students' ability to observe, investigate, and make claims from evidence, while learning outdoors! [Information.](#)

- Advanced Hands-on, Multidisciplinary Training, July 12 – 13, Savage
- Ecology Institute, June 28-30, Maple Lake
- Patterns in Nature Institute, July 19 – 23, Maple Lake

**Fermilab Teacher Workshops for high school physics teachers, weeks of July 12 & 19, online**

Fermilab's Education and Public Engagement Office is offering online workshops for high school physics teachers the weeks of July 12 and July 19!

- Mechanics: July 12-15
- Electricity & Magnetism: July 19-22

Both workshops are aligned to the NGSS and connect teachers to the science of Fermilab. You will have the opportunity to meet with and ask questions of lab staff and take virtual tours of the Fermilab site. There is a \$50 registration fee, and teachers will receive a kit of materials to assist in completing the investigations in the workshop. [Information.](#)

**6th 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 - Full
- Metro area, August 9 – 13 - Full

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/hybrid**

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](#)

## ***A Deep Dive into Shipwrecks and Aquatic Invasive Species, July 28 & Aug 4, Online***

Brought to you by the Sea Grant Center for Great Lakes Literacy, take a deep dive this summer and investigate maritime underwater shipwrecks and how aquatic invasive species impact water quality, the food web, and shipwrecks over a two-day workshop series. Take in one or both workshops. [Information and Registration](#)

## ***MnSTA Conference on Science Education, Oct 28-Nov. 1, Online***

A Clear Vision for Science Education: All Students, All Standards, All Voices is the theme for the fall MnCOSE conference, which will once again be virtual. Save the date and plan to share your great ideas. And...MnCOSE20's Video Content will REMAIN AVAILABLE via the Whova app (Google/Android, Apple) through June 30, 2021! [More Information](#).

## ***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](#)

## ***Mexico: Whale Ecology and Marine Research, January 2022***

The waters of Baja, Mexico are home to more than a third of the world's marine mammals. Travel to the Gulf of California and the shores of the Pacific to study two of the most charismatic - the grey whale and the humpback. Work with researchers to collect acoustic recordings, DNA samples, and behavioral data on these immense animals.

The course, hosted by Hamline University, will happen during J-term (January) of 2022, but the registration deadline is the end of September 2021. Please visit the [course website](#) and/or reach out to Patty Born, program director, with questions. [pselly01@hamline.edu](mailto:pselly01@hamline.edu)

## **Teacher and School Awards and Opportunities**

### ***Presidential Awards Science Minnesota Finalists Announced***

The review of the Minnesota applications for the Presidential Awards for Excellence in Mathematics and Science Teaching for 2021 has been completed. This year the applications were for secondary teachers, and next year will be for elementary teachers. The applications include a video recording and a narrative about the practices in science content, instruction, assessment, reflection and leadership. The applications of the finalists will be judged at the national level and the White House will make the final selection. There will be a Washington, DC celebration, possibly next spring. The Science finalists for this year are:

- Meagan O'Brien, Biology teacher, at Washington Technology Magnet in St. Paul, presented an online class on Virology that includes a delivered kit and has students teach someone about viruses.
- Missie Olson, biology teacher at Becker Senior High School, presented an online experiment on homeostasis where the students groups directed the experiment.
- Anne Zielske, chemistry teacher at Harding High School in St. Paul, presented an online lesson using Lego blocks to model chemical formula ratios.

### **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**

### ***Minnesota Forests: Ojibwe and Dakota PLT lessons***

Use Minnesota forests as your “window to the world” to integrate indigenous Ojibwe and Dakota content into your K-8 curriculum. Your students will love the hands-on learning and connections to the real world!

MN Project Learning Tree has developed [seven lessons](#) to help meet Minnesota's academic standards in science, social studies, and ELA, while sharing relevant, place-based knowledge about the people who have inhabited our state for hundreds of years. The webpage also includes important teacher tools for understanding about [Indian lands in Minnesota](#), treaties, [vocabulary and pronunciation guides](#), and more.

### ***Free resources for teaching how science works***

[Decoding Science](#) is a free interactive resource from the National Academies of Sciences, Engineering and medicine. It's all vetted by experts and ready to use in your classroom.

- A 90-second video on how science works
- Clear answers to challenging questions
- Stories from real-life scientists
- And more...

### ***Vaccines! How can we use science to make decisions about vaccines?***

Utilizing a transdisciplinary approach to learning, the [Smithsonian Science for Global Goals](#) project's newest community response guide, Vaccines! features 8 tasks that incorporate investigations and hands-on science to help students discover, understand, and take action. Students learn about the science of vaccines throughout history; understand the science of how vaccines work; learn about how vaccines are developed; examine issues of equity, access, and misinformation; and develop an action plan for addressing vaccine concerns in their communities

### ***Working River Online: A Virtual Journey to the Falls***

Based on popular school field trips at historic St. Anthony Falls in Minneapolis, and associated with the Mississippi National River and Recreation Area, [Working River Online: A Virtual Journey to the Falls](#) engages students in grades 4 - 6 with four topics deeply associated with the upper Mississippi River: its geology, its role as a transportation corridor, its waterpower, and the continual effort of stewardship. Each topic consist of four sections:

1. National park rangers and park partners in

2. Learn It: Students explore and learn about the topic through slide decks, videos and readings.
3. Do it: Students work with a hands-on activity, product or project.
4. Know it: A short pre or post-quiz allows students to see what they know about each topic.

### ***STARBASE STEM Kits: Surviving Mars, online and in-person resources***

Fifth grade students become Mars explorers as they engage in hands-on STEM lessons to plan and prepare of a mission to Mars. Students experience all area of STEM as the determine the purpose of the mission, design a Mars Base, practice coding, program a robot, design a Mars lander, investigate the vacuum of Space, conduct experiments with a virtual rocket and more! Students will make observations, ask questions, conduct experiments, collect and analyze data, make predictions, and create and analyze designs. Connections to STEM careers are embedded throughout the activities. Free kits are available for each student. [Program preview](#) password: starbase. For information [starbase@starbasemn.org](mailto:starbase@starbasemn.org)

### ***PLT “Explore Your Environment” K-8 Activity Guide Released***

Project Learning Tree® (PLT) released a new curriculum guide to engage kindergarten through grade 8 students in exploring their environment. Fifty field-tested, hands-on activities integrate investigations of nature with science, math, English language arts, and social studies.

Educators can obtain a copy of PLT's [Explore Your Environment: K-8 Activity Guide](#) directly from [PLT's Shop](#), from Amazon and other places where books are sold, or by attending a local [PLT professional development workshop](#) conducted by PLT's 50-state network of 75 coordinators and 1,000 facilitators across the country. [Minnesota PLT site](#).

### ***Project Invent***

[Project Invent](#) is a national nonprofit empowering high school students to invent for social good. Since 2018, over 50 teachers have completed our fellowship and cultivated young inventors within their classrooms. Our applications are now open for the 2021-2022 school year, and we're looking for passionate high school educators to apply. Our educators lead their students to use design thinking, engineering, and entrepreneurship to tackle big problems in

# Department of Education Opportunities

their communities. As a fellow, you will attend a weeklong summer training in design thinking and invention, receive support throughout the year from expert advisors, and give your students the opportunity to pitch to Silicon Valley investors.

## Student Programs, Awards and Competitions

### Explore STEM day camps, Minnesota State Univ. Mankato

Students entering 6th – 9th grade will engage with university faculty, staff and students to explore the many wondrous parts of STEM. One day of each camp is dedicated to on-site tours at lead companies around Mankato. Each camp costs \$200. [Information and Registration.](#)

- July 26 – 29 Explore STEM + Agriculture Farm to table
- August 2 – 5 Explore Engineering – Artificial Intelligence

### EX.I.T.E Camp for middle school girls, 5 dates July 26-August 5, online

EX.I.T.E. (EXploring Interests in Technology and Engineering) Camp is a free summer STEM camp for middle school girls with disabilities. Camp encourages future engagement with STEM subjects and helps girls discover the range of possibilities that exist through amazing experiments, activities, and mentors. Campers learn how fun these subjects can be and many make friendships that last beyond camp. [Information.](#)

### TED talks to watch with Kids

Talks on a variety of topics with many science oriented. [Playlist.](#)

### 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 MN 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

[John.c.olson@state.mn.us](mailto:John.c.olson@state.mn.us)

Jim Wood, Science Assessment Specialist

[jim.wood@state.mn.us](mailto:jim.wood@state.mn.us)

Judi Iverson, Science Assessment Specialist

[judi.iverson@state.mn.us](mailto:judi.iverson@state.mn.us)

Sarah Carter, STEM and Computer Science Specialist [sarah.carter@state.mn.us](mailto:sarah.carter@state.mn.us)

Send submissions for the Science Update to John Olson [john.c.olson@state.mn.us](mailto:john.c.olson@state.mn.us)

### Other Minnesota Links:

Minn. Dept. of Education Science Page <http://education.state.mn.us/MDE/dse/stds/sci/>

Minn. Science Teachers Association [mnsta.org](http://mnsta.org)

Frameworks for MN Science and Mathematics Standards <http://scimathmn.org/stemtc/>

Get – STEM Connections between schools and businesses <https://getstem-mn.com>

Mn-STEM STEM programs and resources for families, schools and community <http://mn-stem.com/stem/>

Sharing Environmental Education Knowledge environmental education resources <https://www.seek.state.mn.us>

Minnesota Academy of Science: Science Fair, Science Bowl and other competitions <https://www.mnmas.org/>

Mn DNR Education website: Curriculum, professional development, posters, etc. <http://www.dnr.state.mn.us/education/index.html>

Youth Eco Solutions (YES!) – Statewide, youth-led program for hands-on eco related projects <https://yesmn.org/>

MnSTA, Inc. is an IRS 501 (c) (3) Charitable Educational Corporation, incorporated as a tax exempt, non-profit organization with the Minnesota Secretary of State. Donations and dues are tax deductible charitable contributions for itemized deductions on IRS form 1040 Schedule A. The newsletter is an exempt program service provided to the membership. A membership form is found on the last page

# Opportunities



## The Outdoor Classroom

### Team Teaching with Mother Nature



## Hands-on, Multi-disciplinary Training

Be inspired this summer, in an exciting workshop offered by Jeffers Foundation. This is the much-requested, advanced version of our popular three-day professional development training.

---

**Who:** K-8 teachers, naturalists, and environmental educators

**What:** FREE professional development sponsored by Jeffers Foundation

**When:** July 12 - July 14, 2021 10:00 am to 3:00 pm daily.

**Where:** McColl Pond ELC, Savage, MN

**Workshop includes:**

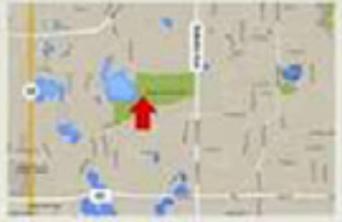
- Lunch & snacks each day
- EcoTime Cards
- Calendar in the Classroom curriculum & MN Weatherguide Environment™ Calendar
- LookIts
- Jeffers Journals for your students
- Participants earn 15 CEU's
- And much more! - It's fun and it's FREE\*!

\*Registration requires a fee of \$30 to hold your place. Your fee will be returned to you upon completion of the workshop. Cancellations after July 2 are not refundable.

Three days are jam-packed with multi-disciplinary, hands-on activities to engage and inspire your students. Strategies for successful outdoor instruction, a focus on academic standards, an emphasis on STEM and opportunities to share ideas with other educators are special features of the workshop.

McColl Pond, ELC  
Savage Community Park  
13550 Dakota Avenue South  
Savage, MN 55378

For more information or to register, contact Suzanne Fuluvaka:  
[SuzanneF@JeffersFoundation.org](mailto:SuzanneF@JeffersFoundation.org)





Environmental Stewardship Through Education

[JeffersFoundation.org](http://JeffersFoundation.org)

**NEW! From Jeffers Foundation**



**JEFFERS WORKSHOPS INSTITUTES**

**ECOLOGY INSTITUTE**  
Participate in single and multi-day ecology investigations in a variety of natural habitats.

The interrelationships of living things to each other and to their physical environment, ecological systems, will provide the content for this institute.

---

**Who:** Teachers, naturalists, and environmental educators, grades 3-12. Limited to 15 participants.  
**What:** FREE professional development by David Grack, Ed.D. Sponsored by Jeffers Foundation  
**When:** Monday, Tuesday, Wednesday, June 28, 29, 30, 2021 - 8:00 AM - 4:00 PM - Lunch included  
**Where:** Environmental Education Center at Robert Ney Park Reserve, Maple Lake, MN  
**Registration/CEU's:** Earn 30 CEU's. Register by June 18, 2021. A registration fee of \$40 will hold your spot. This fee is refunded upon completion of the institute.  
 Cancellations after June 21 are not refundable.

The ecology institute will help teachers work and learn as scientists. Participating teachers will take part in outdoor investigations that emphasize the use of science practices and cross cutting concepts while studying ecological systems, a core idea embedded within many grade levels in the Minnesota Science Standards. Ecology investigations will include: surveying of Minnesota forests, investigating food webs and analyzing trophic levels in a grassland community, conducting population density studies, and tracking succession in both terrestrial and aquatic habitats. Discussions throughout the institute aim to help teachers reflect on their experiences and plan to implement outdoor ecology investigations for their students. Participating teachers receive Jeffers Journals, Teacher Lookit, and MN Weatherguide Calendar. Classroom teachers eligible for a class set of Jeffers Journals.

Environmental Education Center  
Robert Ney Park Reserve  
5212 73rd St. NW  
Maple Lake, MN 55358



To register, contact Suzanne Fuluva:  
SuzanneF@JeffersFoundation.org

Environmental Stewardship Through Education      JeffersFoundation.org




**JEFFERS WORKSHOPS INSTITUTES**

**PATTERNS IN NATURE INSTITUTE**  
Explore nature to identify patterns in the structure, function, and behavior of plants and animals.

This institute is designed to provide the spark educators need to raise student interest and engagement as they explore and investigate plant and animal natural patterns and behaviors while learning outdoors.

---

**Who:** Teachers, naturalists, and environmental educators, grades K-7. Limited to 15 participants.  
**What:** FREE professional development by David Grack, Ed.D. Sponsored by Jeffers Foundation  
**When:** Monday July 19- Wednesday July 21, 2021 - 8:00 AM - 4:00 PM - Lunch included  
**Where:** Environmental Education Center at Robert Ney Park Reserve, Maple Lake, MN  
**Registration/CEU's:** Earn 30 CEU's. Register by July 9, 2021. A registration fee of \$40 will hold your spot. This fee is refunded upon completion of the institute.  
 Cancellations after July 12 are not refundable.  
 Participating teachers receive Teacher Lookit, and MN Weatherguide Calendar. Classroom teachers eligible for a class set of Jeffers Journals.

Plants and animals have adapted in many ways to survive in a variety of habitats in Minnesota. Participating educators will gain an understanding of plants and animals as they study forest and tree structure, animal signs and tracks, bird body structure and adaptations, insect and flower interactions, and phenology. Through hands-on experiences, participants will conduct field observations and studies while using a nature journal, gaining experience teaching and learning via three-dimensional science instruction, as promoted in the new Minnesota Science Standards. The combination of topics and the focus on journaling aim to help participating educators gain a higher understanding of the plants and animals in our natural environment while implementing creative journaling experiences.

Environmental Education Center  
Robert Ney Park Reserve  
5212 73rd St. NW  
Maple Lake, MN 55358



To register, contact Suzanne Fuluva:  
SuzanneF@JeffersFoundation.org

Environmental Stewardship Through Education      JeffersFoundation.org



## Online Master's or Graduate Certificate in Chemistry

- Designed for science teachers
- 100% Online
- Start anytime
- Complete in one year
- 30 program credits for master's
- 18 program credits for certificate

The Graduate Certificate in Chemistry will advance secondary education instructors interested in teaching advanced chemistry classes or making salary increases.

The Master's in Chemistry will develop the ability to integrate advanced chemistry knowledge and critical thinking skills to effectively approach scientific problems grounded in chemistry.

[css.edu/MSCChem](http://css.edu/MSCChem)



## Hands on. Minds on.

- NGSS & STEM supported classes
- 19 professional educators
- Over 90 acres to explore
- Overnight & Day Experiences

**Eagle Bluff**  
Environmental Learning Center

[eagle-bluff.org](http://eagle-bluff.org)



---

## Keep Your MnSTA Profile Up-To-Date

MnSTA does its best to keep you abreast of everything happening in science education in Minnesota. We do this via several outlets including:

- MnSTA Website
- MnSTA Facebook and Twitter pages (@MnSTA1)
- Weekly Digest of postings (sent via email)
- Monthly Science Update from MDE Science Specialist John Olson (sent via email)
- Quarterly Newsletter (availability announced via email)
- Occasional email messages to all members

The best way to make sure you are receiving email notices and all of the above information, please make sure that MnSTA has your correct email address, mailing address, and your permission to send this information to you. Your profile also contains information about your school, disciplines you teach, and the grade levels you work with. These can all be updated at any time.

You can update your MnSTA profile by going to the MnSTA website ([www.mnsta.org](http://www.mnsta.org)) and logging in. Click on the My Profile link. You will then see links to Update Profile, Update Address, Update Photo, and Change Password. If you have any questions about this, please feel free to contact MnSTA.

---

## MnSTA Board Directory

Below, you will find information about your MnSTA Board Members. The listing includes the board member's school (or organization), mailing address, work phone, FAX number, and e-mail address. The board wishes to make itself as accessible as possible for our members. Please feel free to contact your discipline representative, regional representative, or executive board members if you have ideas, concerns, or wish to help with the mission or operation of MnSTA. We are always looking for members who wish to serve MnSTA as Board Members, Non-Board Service Chairs or Members, and as Committee Chairs or Members.

### Executive Board:

Exec. Secretary	Karen Bengtson	St. Cloud Area School Dist. 472 1000 44th Ave N. St. Cloud MN 56303
	320-253-9333	karen.bengtson@isd742.org
Past-President	Josh Tharaldson	Marshall County HS 301 W. Minnesota Ave. Newfolden, Mn 56738
	218-847-7225	jtharaldson@mccfreeze.org
President	Angela Osuji	Washburn High School 201 W 49th St. Minneapolis, Mn 55419
	612-668-3400	Angela.Osuji@gmail.com
President-elect	Jill Jensen	Scott Highlands Middle School 14011 Pilot Knob Rd. Apple Valley, MN 55124
	952-423-7581	jill.jensen@district196.org
Treasurer	Joe Reymann	Retired e: joereymann@comcast.net
DOE Science Specialist	John Olson	Dept.of Education john.c.olson@state.mn.us 651-582-8673

### Discipline Directors:

Biology	Michelle Housenga	Minneapolis Washburn HS 201 West 49th St. Minneapolis, MN 55419
	612-720-5705	Michelle.housenga@mpls.k12.mn.us
Chemistry	Dana Smith	Bemidji Middle School 1910 Middle School Ave. NW Bemidji, MN 56601
	218-333-3215	dana_smith@isd31.net
Earth Science	Haley Kalina	Alexandria Public School 510 McKay Ave. Alenandria, MN 56308
	320-762-7900	hkalina@alexschools.org
Elementary/Greater MNDan	Gruhlk	littlemountainmediallc@gmail.com
Elementary/Metro	Lee Filipek	Southview Elementary 1025 Whitney Dr. Apple Valley, MN 55124
	952-431-8370	Lee.Filipek@District196.org
Higher Ed	Diana Fenton	College of St. Benedict/St. Johns U 37 College Ave. S. St. Joseph, MN 56374
	320-363-5968	dfenton@csbsju.edu
Informal Ed	Caitlin Potter	CedarCreekEcosystemScienceReserve2660FawnLakeDr.NEE.Bethel55005
		caitlin@umn.edu
Alternative Ed.	Garret Bitker	ZEDALC 630 1st Ave. NW Byron, MN 55920
	507-775-2083	gbitker@zumbroed.org
Physics	Phillip Sexton	Minnetonka High School 18301 Hwy 7 Minnetonka, MN 55345
	612-401-5700	phillip.sexton@minnetonkaschools.org
Private Schools	Steve Heilig	St. Paul Academy & Summit School 1712 Randolph Ave. St. Paul 55105
	651-696-1432	sheilig@spa.edu

### Region Representatives:

Region 1&2: North	Katherine Melgaard	Marshall County HS 310 W. Minnesota Ave. Newfolden, MN 56738
	218-874-7225 ext. 116	kmelgaard@mccfreeze.org
Region 1&2: North	Caitlin Djonne	Park Rapids Schools 501 Helten Ave. Park Rapids, MN 56470
	218-237-6312	cdjonne@parkrapids.k12.mn.us
Region 3: Northeast	Jennifer Gagner	Pike Lake Elementary 5682 Martin Rd Duluth, MN 55811
	218-729-8214	jpgagner@proctor.k12.mn.us
Region 4: Westcentral	Harrison Aakre	Alexandria Area High School 4300 Pioneer Rd. Alexandria, MN 56308
		haakre@alexschools.org

# MnSTA Board Directory

Region 5: Northcentral	Lisa Pingrey 307-624-0627	National Joint Powers Alliance lisa.pingrey@sourcewell-mn.org	202 12th St. NE Staples, MN 56479
Region 6: Southcentral	Holly Knudson 507-537-6920 X 1059	Marshall High School holly.knudson@marshall.12.mn.us	400 Tiger Drive Marshall, MN 56258
Region 7: Eastcentral	Missie Olson 320-274-3341	Becker High School molson@isd726.org	12000 Hancock St. Becker, MN 55308
Region 8: Southcentral	Holly Knudson 507-537-6920 X 1059	Marshall High School holly.knudson@marshall.12.mn.us	400 Tiger Drive Marshall, MN 56258
Region 9: South	David Borslien 507-943-4212 ext 6028	St. Peter High School dborslien@stpeterschools.org	1221 Broadway Ave. St. Peter, MN 56082
Region 10: Southeast	Emily Zinck 507-523-2191	Lewiston-Altura ezinck@lewalt.k12.mn.us	100 County Road 25 Lewiston, MN
Region 11: Metro	Megan Earnest 612-624-5852	Bell Museum-University of Minnesota megan.earnest@gmail.com	2088 Larpenteur Ave. W St. Paul, MN 55113
Region 11: Metro	David McGill	Capitol Hill Gifted and Talented Magnet 560 Concordia Ave. St. Paul MN 55103	

## Ancillary Positions:

Database	Mark Lex	marklex@umn.edu	
Webmaster	Eric Koser	Mankato West H.S.	1351 S. Riverfront Dr. Mankato, MN 56001
		W: 507-387-3461 x 322 F: 507-345-1502 e: ekphys@gmail.com	
Newsletter	Jerry Wenzel	jerrywenzel@brainerd.net	
NSTA Dist. IX Director	Scott Johnson	Century High School	1000 East Century Ave. Bismarck, ND 58503
		701-323-4900x6666 scott_johnson@bismarckschools.org	
Conference Coordinator	Eric Koser	Mankato West H.S.	1351 S. Riverfront Dr. Mankato, MN 56001
		W: 507-387-3461 x 322 F: 507-345-1502 e: ekphys@gmail.com	

## Events Calendar

If you have events you want placed on the calendar, send them to the editor - see page 2 for deadlines, address, etc.

### Conferences / Workshops

Future MnCOSE Conferences:  
 2021 Oct. 28-Nov. 1 Virtual  
 2022 St. Cloud

# Region Representatives

**Caitlin Djonne**  
Region 1&2: North West

**Jenny Gagner**  
Region 3: North East

**Katie Melgaard**  
Region 1&2: North West

**Harrison Aakre**  
Region 4: West Central

**Lisa Pingrey**  
Region 5: North Central

**Holly Knudson**  
Region 6&8: South Central South West

**David Borselin**  
Region 9: South

**Emily Zinck**  
Region 10: South East

**Missie Olson**  
Region 7: East Central

**Megan Earnest**  
Region 11: Metro

**David McGill**  
Region 11: Metro

**MnSTA**  
Minnesota Science Teachers Association  
Fostering excellence in science education  
Minnesota for all!

