

MnSTA Newsletter

Volume 65 No. 2 A Quarterly Publication of the Minnesota Science Teachers Association Inc. Winter 2023

Teachers Receive MnSTA Science Teaching Award

The MnSTA Science Teaching Award is presented each year to honor exemplary teachers at two levels: elementary and secondary. To demonstrate their qualifications for the award, the applicants must provide a description of their teaching practice, a listing of their teaching and professional activities, and a proposal for use of the funds. Each awardee receives a fund of \$1000 for a project that benefits their students and free registration for MnCOSE. Recipients of the award are expected to share the results of their project with other teachers. The judges for the award are members of the MnSTA board of directors.



MnSTA president Jill Jensen presents the MnSTA Science Teaching Award to Barbara Jacobs-Smith and Dr. Stephanie Harris at MnCOSE in Duluth

The Teaching Award for an elementary teacher goes to Barbara Jacobs-Smith, a third-grade teacher at Breck School in Golden Valley. Barbara puts an emphasis on creating conditions where students want to learn, especially by exposing them to the wonders of nature. She does this in many ways - planting seeds, raising invertebrates, taking students outside,

observing the world through a window, and participating in a Citizen Science project.

As an example, her students participate in Project FeederWatch which uses data submitted by participants to draw a picture of winter bird abundance and distribution. As scientists, students learn to identify birds, enter data correctly, and contribute to the scientific enterprise. Barbara plans to use her award money for a project to identify and eradicate invasive species on the school campus. Congratulations Carrie!

The Teaching Award for a secondary teacher goes to Dr. Stephanie Harris from Washington Technology Magnet School in St. Paul, where she teaches Chemistry. Some of the approaches she uses in her teaching are:

- providing the tools for students to continue to use science on their own throughout their lives,
- investigating phenomena through inquiry-based activities that give students the opportunity to construct their own knowledge, and
- using interdisciplinary approaches based on Stephanie's background in several fields.

Stephanie will use the award funds to purchase equipment for the separation of water into hydrogen and oxygen. Congratulations Stephanie!

Watch for information about the 2023 award and prepare to submit your entry. The application is not lengthy and is due in early fall.

President's Message-Jill Jensen



Greetings and Happy 2023. I have never been one to set New Year's Resolutions. The start of a new calendar year falls in the midst of a teaching year. Which, for me, means I'll return to my same class of students and pick up where we left off in December. The fact that it's winter in Minnesota also means that new lifestyle changes are hindered by wind chills and ice storms.

One tradition I did start back in 2019 was to consider a 'One Word' for the year. The purpose of this is to set an intention for the year, a way you want to feel, or a hope or desire. I find this process more meaningful than a resolution. Using a word allows me to give myself grace when I am not always on target, and reminds me what I envisioned for myself.

This is also different from the 'word of the year' that comes out at the end of year - usually by Merriam-Webster or other platforms that highlight what the previous year trends or themes were. The goal of setting a word of the year for yourself in January is to set your course; not where have you been but where do you want to be?

I found my file where I documented my previous year's words:
 2019: Elevate
 2020: Transform:
 2021: Inspire
 2022: -

Apparently I did not set my course last year (I'm trying to not read too much into this). I am also now given the opportunity to reflect on what 2022 brought me. Thinking about actions, projects, accomplishments and goals from this past year, I landed

on 'GROW'. 2022 was a year of growth for me as I grew in my skills of middle school teaching, grew in my knowledge and understanding of new standards and NGSS; and made attempts at growing my patience in all aspects of my life.

Various websites have suggestions for generating your word, including: think about what you want more of, how do you want to feel, or what characteristics do you seek? This brings me back to the mission of MnSTA: to stimulate, coordinate, and improve science teaching and learning for all. The word that will help me work toward this mission is CONNECT. We can do much more together than we can alone. Connection can give us a sense of belonging and security; connecting with students has a wealth of benefits, social-emotional as well as academic.

I hope you feel connected to MnSTA and the power of our collective group of educators. I was able to witness this at MN-COSE 22 held this past November. It was such a great feeling to reconnect with colleagues and friends and make new connections with so many. What a gift it was to be back in person and experience the energy of passionate educators and presenters.

We have a variety of ways to connect with other members throughout the year. In addition to the monthly NGSS focused discussions (see https://www.mnsta.org/cgi/page.cgi/Book_Club.html), regional directors have been offering opportunities to connect and a new series of opportunities for 8th grade teachers is coming up in February (see this [flier](#)). I look forward to connecting with you sometime soon!

President's message continued onpage 6

Bringing Science Supplies and Living Specimens Directly to You Since 1936!

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MnCOSE '22 Duluth

Jim Rock (Dakota). Luncheon Speaker



Breakout Sessions



Presidential Award Finalists



Kimberly Menard, Lake Marion Elementary



Dawn Mueller, Independence Elem STEM School



Anna Edlund, Bluff Creek Elementary School

Online Master's or Graduate Certificate in Chemistry

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.

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

- Designed for science teachers
- 100% Online
- Start anytime
- Complete on your schedule

css.edu/MSCChem



Department of Education



Angie Kolonich is the science specialist for the Department of Education. She will keep us updated on science education in the MnSTA newsletter.

Boozhoo*/Greetings Minnesota Science Teachers!

Biboon/It is Winter! For all the complaining I do about shoveling snow, I do secretly love Winter – and specifically Minnesota Winter. Winters in Winnipeg on the prairies are too windy and cold, and Winter in Michigan is too wet and icy – but Winter in Minnesota is just right! For my family, Winter is the time for gathering and sharing aadizookaan/our sacred stories. There is nothing better than sharing a big pot of manoomin/wild rice soup by the fire and listening to family members sharing their wisdom. This year, we are planning to make dewe'iganag/drums at our gathering. Our hand drums are made by stretching deer, elk, or another hide over a wooden frame. One interesting thing about our dewe'iganag is that no two sound alike. There are many different factors that affect the sound of a drum – a few being the type of hide used, the thickness of the hide, the size of the frame, and how tightly the hide is stretched. But I do want to share with you something interesting I learned about my dewe'igan last year.

Last Winter, our family gathered to eat soup and tell stories by the fire outside, and to play songs together on our hand drums. My dewe'igan was a gift to me and is made from deer hide stretched over a wooden frame. It actually sounds a little differ-

ent depending on where it is struck with the mallet, which I think is due to varying thickness of the hide. It was a very cold and windy evening, and after our meal we pulled out our drums to play a song. When I first struck my drum, it sounded completely different and made a dull “thud” noise. I was very nervous that I had somehow injured it, but my Auntie said to me “Oh, your drum is too cold, come closer to the fire”. She then instructed me to carefully wave dewe'igan in front of the fire to warm it. After two passes, I tried again, and it sounded a bit better! Two more passes, and the usual deep and rich sound returned. I had not noticed the impact of temperature on the sound in the past, and it made me wonder, “What causes the sound of my dewe'igan to change when it's cold outside?” That is when I learned to make sure that my drum stays warm on cold nights. I hope that this Winter, you also have a bowl of warm soup or a fire to keep warm.

* You can learn more about Ojibwe language and access audio files of word pronunciation at The Ojibwe Peoples Dictionary – established by faculty at The University of Minnesota <https://ojibwe.lib.umn.edu/>

Minnesota Academic Standards in Science Resources Updated to Support Implementation of the 2019 Academic Standards in Science

MDE has updated resources to support implementation of the 2019 standards on our [Academic Standards – Science Standards Implementation](#) page. Recent updates to our page include links to informational documents on science teacher licensure from the Professional Educator Licensing and Standards Board (PELSB), and copies of materials presented at the 2022 Minnesota Conference on Science Education (MnCOSE). Additional resources to support teachers and schools will be added to this page periodically – please check back for updates, or reach out directly with questions.

MCA Science Assessment update

Resource Highlight: Using Assessment Results During Transition to New Academic Standards: Science. Developing a communication plan for sharing assessment results can be an important part of your district's science standards transition plan. MDE has released this new [guidance document](#) to support school districts in communicating assessment results to school communities during standards transition. This resource can be found on our Science Standards Implementation page.

Resource Highlight: Sample Items Released for the Science MCA-IV.

Preview sets of questions developed for the Science MCA-IV. The [Testing 1, 2, 3 MCA Content Resources](#) webpage under Science Resources now has released examples of Science MCA-IV items and Educator Guides. The purpose of these resources is to give Minnesota education professionals a few examples of phenomenon-based, multi-dimensional items aligned to the 2019 Minnesota Science Standards. The guides include information on benchmark alignment and student response data, to provide context for the online released items.

Applications are now open for National Youth Science Camp

Applications are now being accepted from high school juniors and seniors in the classes of 2023 and 2024 to represent Minnesota at the 2023 National Youth Science Camp (NYSCamp). Two students from each state, Washington, D.C., and select countries will attend the all-expenses-paid program, which will be held from June 19 through July 12, 2023 in West Virginia.

For more information about the program, please see <http://www.nyscamp.org>. Applications must be submitted online at <http://apply.nyscamp.org> by 11:59 PM EST on February 28, 2023.

Contact Information

Angela Kolonich, Science Specialist | angela.kolonich@state.mn.us

Little Free Science Museum Project

You've all seen the Little Free Libraries popping up in neighborhoods. Now it's time for Little Free Science Museums to do the same! Last fall at Mn-COSE 22, Steve Heilig started the ball rolling with a presentation on this idea. These mini science demonstrations can be student projects or something you do on your own; see what it's all about by viewing the slideshow [here](#). For more information, or to participate, contact Steve Heilig, [sheilig57@gmail.com](mailto:sheilg57@gmail.com).

President's message continued frompage 2

PS: I'd love to hear your One Word, if you have one. Look for an upcoming Facebook Post for an opportunity to share. Want to read more about making One Word: check out this article: <https://www.washingtonpost.com/wellness/2022/12/29/nudge-word-of-the-year-resolutions>

Climate and Equity: Summer Institute for Learning and Teaching

July 30 – August 5, 2023

The Climate and Equity project plans to transform how climate and equity are taught by reducing teacher isolation and supporting collective growth. Institute Goals

The incidence of extreme climate impacts is increasing. Levels of eco-anxiety and existential dread related to global warming among youth are at record highs. Education about global warming, and its inequitable impacts, is urgently needed, yet teachers who address this need are isolated.

To continue to address this urgent need, we will host a group of 12 high-school teachers at a one-week, expenses-paid Climate and Equity Institute at the [Shoodic Institute](#) campus. The Institute will be held Sunday July 30 – Saturday August 5 2023. Teachers will discuss equitable pedagogy, hear presentations about the global — and psychological — impacts of climate change, explore climate change impacts firsthand through guided field trips, and have free time to pursue additional topics.

Applications are now open!

We had a wonderful response from the community and many outstanding participants in our inaugural institute in 2022. If you are interested in attending in 2023, [please fill out the application form here](#).

Questions? Contact: climateandequity@terc.edu

Spring Knowles Academy Online Short Courses

This spring, we are offering 14 free online short courses, including courses on increasing rigor in project-based learning classes, designing high cognitive demand tasks, integrating engineering design, exploring the Patterns Approach to physics, and implementing effective group work. Led by experienced teachers, Knowles Academy online courses are designed to improve mathematics and science teaching and learning. Participants will engage in interactive discussions with instructors and other participants as they explore new tools and strategies to use in their classrooms.

Please note that all of our online courses will be held via Zoom; participants must have internet access via a desktop or laptop computer, or a tablet, with a camera. Class size is limited; register now to reserve your spot.

Here's the link for more information! <https://mailchi.mp/knowlesteachers.org/knowles-academy-short-courses-spring-2686962?e=ee5a6b71b6>

Opportunities

Free resources for teaching how science works

Decoding Science https://www.nap.edu/resource/25303/interactive/index.html?utm_source=NASEM+News+and+Publications&utm_campaign=d18874372b-Eblast_Decoding_Science_Ed_2021_05_27&utm_medium=email&utm_term=0_96101de015-d18874372b-102201965&goal=0_96101de015-d18874372b-102201965&mc_cid=d18874372b&mc_eid=1e54d40e2e 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...

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 <https://www.plt.org/curriculum/k-8-activity-guide-explore-your-environment/> directly from PLT's Shop <https://shop.plt.org/Shop/ProductDetails/k8guide>, from Amazon and other places where books are sold, or by attending a local PLT professional development workshop <https://www.plt.org/trainings/attend-a-training/> conducted by PLT's 50-state network of 75 coordinators and 1,000 facilitators across the country. Minnesota PLT site <https://www.dnr.state.mn.us/plt/index.html>

Student Programs, Awards and Competitions

Science and Engineering Competitions

- [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:

Angela Kolonich, Science Content Specialist

angela.kolonich@state.mn.us

Jim Wood, Science Assessment Specialist

jim.wood@state.mn.us

Judi Iverson, Science Assessment Specialist

judi.iverson@state.mn.us

Sarah Carter, STEM and Computer Science Specialist

sarah.carter@state.mn.us

Send submissions for the Science Update to Angela

Kolonich angela.kolonich@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

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/>

Earth Science Teacher Education Project



The Earth Science Teacher Education Project, or ESTEP, is a professional development program for 6th grade and high school earth and space science teachers. Both ESTEP programs are NOW funded by an Environment and Natural Resources Trust Fund grant through summer of 2025! This grant allows us to offer high quality professional development focused on environmental and earth science content and the new pedagogy of the MN Science Standards *at very low cost to teachers and districts*. Our goal is to facilitate and model best practices in content and three-dimensional teaching strategies so that MN teachers can become practitioners of these new standards and create an environment of investigation and discovery in their classrooms. *Through our summer boot camps and NEW semester-based online content courses*, 6th grade and high school earth and environmental science teachers can learn the content and teaching strategies to move their classrooms from teacher-centered lectures to student-led sense-making through authentic use of science and engineering practices. *Graduate*

credit for all summer bootcamps and on-line courses are available to participants for FREE (there may be a nominal registration fee for each course/camp; lodging and other expenses are not covered by the grant). Additionally, participation in ESTEP can help prepare currently licensed high school science teachers to *obtain an additional licensure in 9-12 Earth and Space Science through MTLE testing*. Read on to learn what ESTEP can do for you and your students! Want to know more? Check out ESTEP programs at <https://www.mnsta.org/cgi/page.cgi/ESTEP.html>

Registration for 2023 Summer Boot Camps will open in mid-February! You can find dates and sites on our website! MnSTA members will receive email updates!

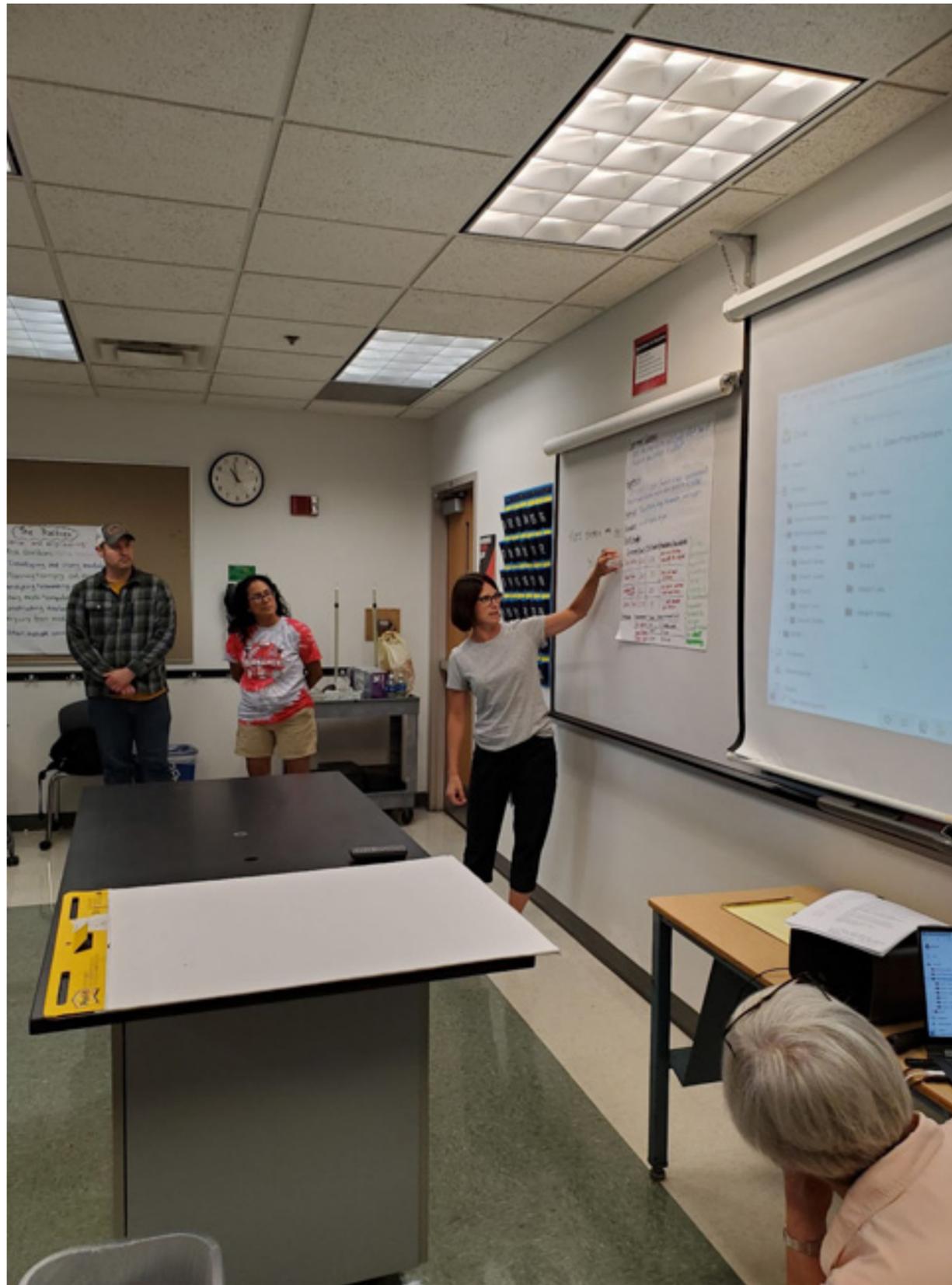
Funding for this project was provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR).

Earth Science Teacher Education Project



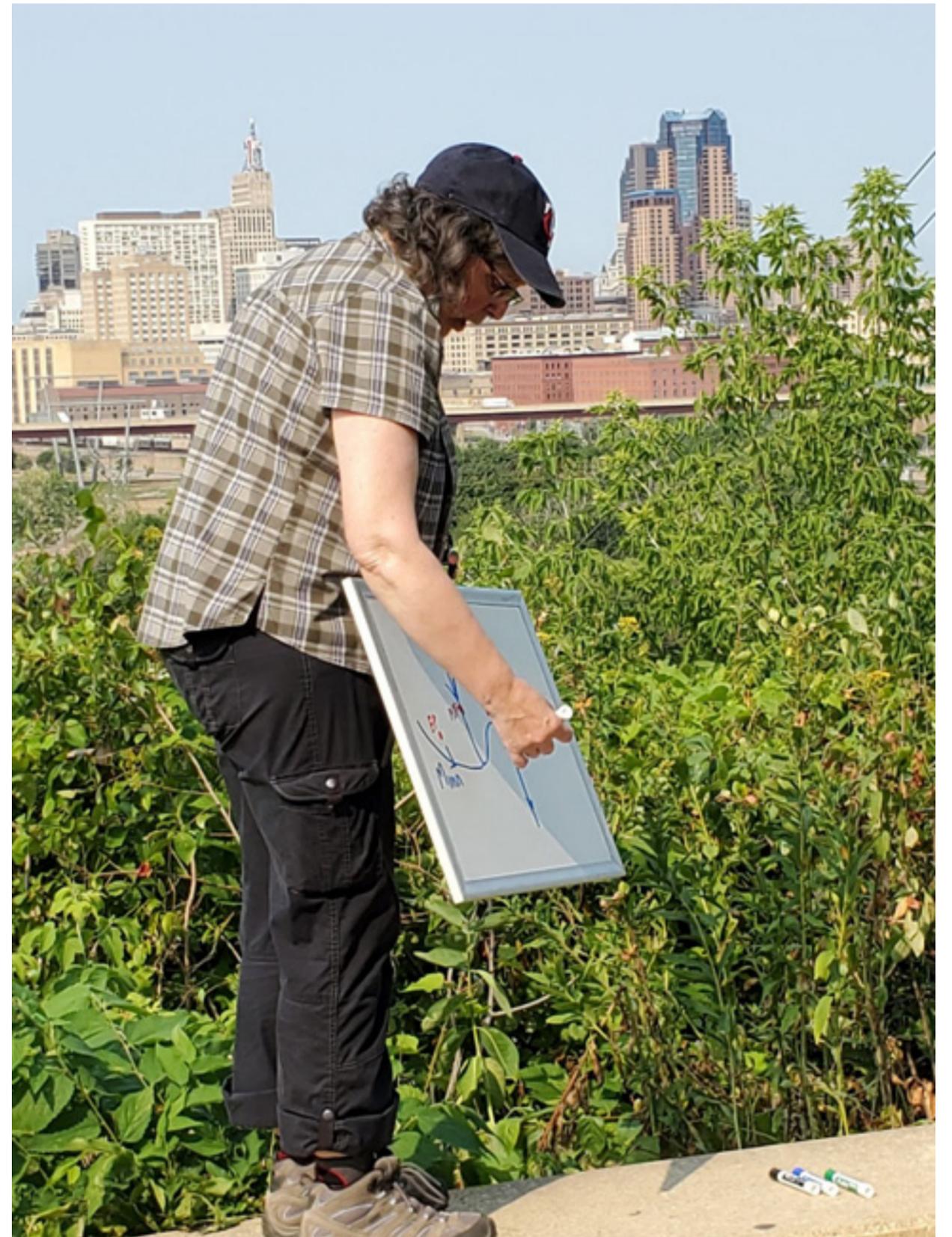
Observing clues to rock formation with Dr. Hoppie in Mankato.

Earth Science Teacher Education Project



Participants sharing their experimental design data and results to explain the phenomenon

Earth Science Teacher Education Project



Dr. Pound modeling the stratigraphy of the St Paul area



Participants investigating and collecting data about variables affecting stream structures.



Analyzing evidence of glacial deposition in Bemidji.



The Minnesota Science Teachers Association

Professional Learning Opportunities '22-'23

MnSTA is excited to announce our professional learning opportunities for members this school year. Highlights include:

- Monthly virtual offerings
- NGSS Focused
- Free for members
- CEU's available
- Come to all or any that fit your schedule

Book: Helping Students Make Sense of the World Using Next Generation Science and Engineering Practices



Available through NSTA Press and Amazon

Book Discussion led by Jill Jensen

NGSS Focused Discussion led by Dana Smith

Date and Time	Topic
October 13 6:30 PM	Book Discussion: Section 1: Big Picture through Chapter 4
November 16 6:30 PM	Intro to NGSS conversation
December 8 6:30 PM	Book Discussion: Section 2.1: What do the practices look like in the classroom - Chapter 9
January 18 6:30 PM	Introduction to MN Science Benchmarks/Using Crosswalk Document
February 2 6:30 PM	Book Discussion: Section 2.2 Chapter 10 - 13
March 15 6:30 PM	Curriculum Review Discussion/Share Out
April 6 6:30 PM	Book Discussion Section 3 How Can We Teach Using the Practices? Chapter 14 - 16

Questions: contact us at: jill.jensenedistrict196.org; dana_smith@isd31.net



The Minnesota Science Teachers Association

Professional Learning Opportunities for 8th Grade Physical Science

MnSTA is excited to announce a NEW series of professional learning opportunities for members this spring. These trainings are designed to support 8th grade teachers transition to the new Physical Science Standards. Highlights include:

- Monthly virtual offerings
- NGSS Focused
- Free for members
- CEU's available
- Come to all or any that fit your schedule

Register at MnSTA.org

Additional Information:

Participants will walk through how a unit might be structured using Open Sci-Ed as a model.

A list of easy to access materials will be sent prior to the meeting with a portion of the meeting dedicated to a hands-on investigation.

Science content will be focused at grade-level knowledge with additional resources available

Date and Time	Topic
Saturday, February 11th 9:00 AM - 12:00 PM	Chemical Reactions/Matter
Saturday, February 25th 9:00 AM - 12:00 PM	Thermal Energy
Saturday, March 11th 9:00 AM - 12:00 PM	Forces
Saturday, April 1st 9:00 AM - 12:00 PM	Sound

Participants are encouraged to engage in this PD with other MnSTA members! Consider meeting in a common space to participate in the training together! Science sense-making is best done in teams, and is always more fun with partners!

Have colleagues that aren't members? All sessions are free for members! Non-members can register for \$30 per session. Or encourage colleagues to join MnSTA - for \$25 per year, and access to this and other PD opportunities are FREE !

Please NOTE: These sessions will NOT be recorded for future viewing

Questions: contact Dana Smith: dana_smith@isd31.net



JEFFERS WORKSHOPS INSTITUTES

ECOLOGY INSTITUTE

Learn about Minnesota's natural habitats as you investigate through hands-on, outdoor experiences.

This three-day institute aims to help you learn more about Minnesota habitats and to plan engaging outdoor ecology experiences for your students.

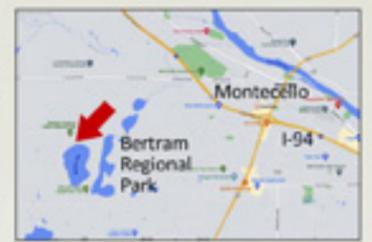
Who: Teachers, naturalists, and environmental educators, grades 3-12. Limited to 15 participants.
What: FREE professional development by David Grack, Ed.D. Sponsored by Jeffers Foundation
When: Mon. June 26th - Wed. June 28th, (3 days) 2023 - 8:00 AM - 4:00 PM - Lunch included
Where: The Chalet at Bertram Chain of Lakes Regional Park, 4 miles SW of Monticello, MN
 Need lodging? A campground, including camper cabins, are available in the park. Reservations can be made at co.wright.mn.us (camping fees are not covered by Jeffers)
Registration/CEU's: Earn 30 CEU's. Register by June 16, 2023. A registration fee of \$40 will hold your spot. This fee is refunded upon completion of the institute.
 Cancellations after June 19th are not refundable.

Ecology, the study of the relationships between living organisms and their physical environment, will provide the content for this institute. Participating educators will be engaged as scientists; collecting, analyzing, and communicating as they conduct field studies. Studies include: a multi-day grassland food web study, two types of forest surveys, and a small-scale aquatic succession lab. Participants will learn techniques and discuss ways to engage their students as practicing scientists, uncovering ecology concepts and core ideas while teaching outdoors on their school grounds and in their communities.

Participating teachers receive Teacher Lookit, and MN Weatherguide Calendar.
 Classroom teachers eligible for a class set of Jeffers Journals.

Bertram Chain of Lakes Regional Park
 9842 Briarwood Ave NE
 Monticello, MN

Register online at jeffersfoundation.org
 Questions? Contact David Grack
david.grack@jeffersfoundation.org



Environmental Stewardship Through Education JeffersFoundation.org




JEFFERS WORKSHOPS INSTITUTES

INSECT INSTITUTE

Team Teaching with Mother Nature:
 Content Area Institutes promoting 3-Dimensional Teaching

Kids young and old are fascinated by insects. Use insects to 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!

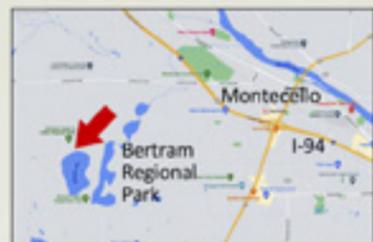
Who: Teachers, naturalists, and environmental educators, grades K-12. Limited to 15 participants.
What: FREE professional development by David Grack, Ed.D. Sponsored by Jeffers Foundation
When: Mon. July 17th - Wed. July 19th, (3 days) 2023 - 8:00 AM - 4:00 PM - Lunch included
Where: The Chalet at Bertram Chain of Lakes Regional Park, 4 miles SW of Monticello, MN
 Need lodging? A campground, including camper cabins, are available in the park. Reservations can be made at co.wright.mn.us (camping fees are not covered by Jeffers)
Registration/CEU's: Earn 30 CEU's. Register by July 7, 2023. A registration fee of \$40 will hold your spot. This fee is refunded upon completion of the institute.
 Cancellations after July 10 are not refundable.

Use the high-interest topic of insects to engage students in science lessons that meet grade level standards for classification, living systems, life cycles, structure and function, and more. Participate in indoor and outdoor observation, discussions, and single and multiple-day investigations. Explore terrestrial and aquatic insects through: taxonomy lessons, collecting and studying specimens, and life cycles and niche research and investigations. Discover and rediscover how insects can work to drive science lessons and also extend opportunities to connect science learning with skills in reading, writing, math, geography, art, and more.

Participating teachers receive Teacher Lookit, and MN Weatherguide Calendar.
 Classroom teachers eligible for a class set of Jeffers Journals.

Bertram Chain of Lakes Regional Park
 9842 Briarwood Ave NE
 Monticello, MN

Register online at jeffersfoundation.org
 Questions? Contact David Grack
david.grack@jeffersfoundation.org



Environmental Stewardship Through Education JeffersFoundation.org



FREE EcoTime 2.0 Workshop for elementary educators



Jeffers Foundation is proud to introduce the **newly revised EcoTime 2.0** written by Minnesota teachers for Minnesota teachers

Workshop participants will experience lessons from a student perspective and explore ways to effectively engage students in the NEW Minnesota K-12 Academic Standards in Science and the Three Dimensions of Science Instruction, with a focus on outdoor learning and using science journals.

Jeffers facilitators engage your participants with effective outdoor instructional strategies for using your schoolgrounds as a teaching resource!

EcoTime 2.0 includes 120 K-5 lessons organized in three related groups:

- **Greetings:** Building community and engagement in science concepts.
- **Science Activities:** Promoting investigation, analysis, and interpretation of data.
- **Interdisciplinary Lessons:** Extending science instruction to language arts, math, art, and engineering.



Participating teachers will receive:

- A FREE dynamic 3-Hour Workshop*
- A set of 120 EcoTime 2.0 lessons
- A Jeffers Journal.
- Classroom teachers are eligible to receive a FREE classroom set of Jeffers Journals to use with their students.

*Can be extended one additional hour to include grade-level teaching practicum with Jeffers facilitators

Connect with Jeffers at JeffersFoundation.org to request an EcoTime 2.0 workshop at YOUR school! Questions? contact: David.grack@jeffersfoundation.org

Environmental Stewardship Through Education

JeffersFoundation.org



E³

High School CTE, STEM, and AFNR teachers E3 is a **free** opportunity for you to spark your interest and to bring opportunities for energy career exploration to your students.

Monday June 12 and Tuesday June 13
Saint Cloud Technical and Community College

Wednesday June 14 and Thursday June 15
Merit Center, Marshall MN

Energy Education for Educators



What's included?

- 16 CEU's
- Industry Tours
- Lunches and One Night's Stay
- Curricular Resources
- Free Lab Kits for Your Classroom
- Access to our Mobile Energy Classroom

www.energycareersminnesota.org/e3

Registration Opens March 1, 2023

Email energycenter@mnwest.edu for more information



LOOKING FOR SUPPORT FOR ELEMENTARY SCIENCE?

Minnesota Science Teachers Association has an offer for you.



**MNSTA IS OFFERING
A \$75 BUILDING
MEMBERSHIP TO
COVER ALL
TEACHERS IN YOUR
BUILDING**

All teachers receive access to the monthly newsletter and online resources as well as member rate for the annual conference.

TO LEARN MORE:

Metro:
Lee.Filipek@district196.org

Out-state
kandy.nolesstevens@smsu.edu



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) 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, 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

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	Angela Osuji	Washburn High School	201 W 49th St. Minneapolis, Mn 55419
	612-668-3400	Angela.Osuji@gmail.com	
President	Jill Jensen	Scott Highlands Middle School	14011 Pilot Knob Rd. Apple Valley, MN 55124
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Informal Ed	Caitlin Potter	Cedar Creek Ecosystem Science Reserve	2660 Fawn Lake Dr. NE E. Bethel 55005
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Alternative Ed.	Jess Paulson	Sciences Academy	8008 83rd St. NW Maple Lake, Mn 55358
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Region 1&2: North	Elizabeth Cakebread	Ada-Borup-West School	604 W. Thorup Ave. Ada, MN 56510
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Region 4: Westcentral	Harrison Aakre	Alexandria Area High School	4300 Pioneer Rd. Alexandria, MN 56308
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MnSTA Board Directory

Region 5: Northcentral	Miranda Graceffa	Crosslake Community School	36972 Cty Rd 66 Crosslake, MN 56442
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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

MnCOSE: Nov. 9-11, '23 Rochester

