

# MnSTA Newsletter

Volume 76 No.3 A Quarterly Publication of the Minnesota Science Teachers Association Inc. Spring 2026



## **Greetings MnSTA Members,**

Spring is showing up on calendars, in ads, and through the occasional warm day and peeks of spring from plants and animals, but the story outside doesn't always match! Especially this week! In education, spring often feels like the epitome of tension—the pull between planning for what's next and staying fully present with the students and learning right in front of us.

That tension can be challenging, but it can also be powerful.

Recently, my team helped bring all of our district's 3rd graders to our high school to partner with our 9th graders in a collaboration we call Space Camp! We had around 600 students that worked in mixed age groups to experience three space "missions" aligned to both grades' Minnesota Science Standards. This partnership has been in place for eight years, and yet, this spring, there were competing priorities and the pull to focus on the future. If I'm being honest, the thought of "let's wait until next year" and I wondered, "is this worth the effort?"

The students answered that question for us when we chose to carry on. The ninth graders stepped into their leadership roles by guiding, encourag-

ing and connecting with their younger partners. Third graders, in turn rose to the challenge, showcasing their knowledge, curiosity, and ability to ask thoughtful, investigative questions. They were excited to model the phases of the moon with a dark room, light and moon (ping pong ball) model and make connections with the Ojibwe Moons we discussed and how that related to what they were studying in Social Studies and Reading. They were thrilled with exploring gravity with some "gravity tag" and investigating the stars in our galaxy. Listening to the mixed-age discussions during these stations, I was reminded of what's possible when we lean into the present moment and opportunities instead of waiting for a more convenient time.

Spring invites us to look ahead, but it also offers a unique opportunity to act on the ideas we've been cultivating all year. Rather than saving new strategies or innovations for "next year," this season challenges us to try them now, refine them in real time, and learn alongside our students.

If you're feeling that same pull between reflection and forward thinking, you're not alone! If you're looking to stay inspired and connected with engaging and practical learning experiences, here are some of what MnSTA has to offer this spring and summer:

**Elementary Science focused Saturday Seminar** – April 25 at Belwin Outdoor Science in Afton, MN—[https://www.mnsta.org/cgi/page.cgi/ESTEP\\_2\\_0\\_Saturday\\_Seminars.html](https://www.mnsta.org/cgi/page.cgi/ESTEP_2_0_Saturday_Seminars.html)

**ESTEP Summer Courses** (2 day and 5 day options; multiple topics for all grades!)- [https://www.mnsta.org/ESTEP\\_SUMMER\\_2026\\_.html](https://www.mnsta.org/ESTEP_SUMMER_2026_.html)

**ESTEP Online Courses** (Check out the Integrated Science Options for some Life and Physical Science too!)-[https://www.mnsta.org/cgi/page.cgi/ESTEP\\_2\\_0\\_Online\\_Courses.html](https://www.mnsta.org/cgi/page.cgi/ESTEP_2_0_Online_Courses.html)

**PSTEP (Physical Science Teacher Education Program)** In person/Synchronous Workshop on Saturday, April 18 –[https://www.mnsta.org/cgi/page.cgi/event\\_calendar.html?date=2026-4&evt=884](https://www.mnsta.org/cgi/page.cgi/event_calendar.html?date=2026-4&evt=884)

**Virtual Webinars in April** (Modeling Focus) & May (Elementary Weather Benchmarks)--[https://www.mnsta.org/cgi/page.cgi/Professional\\_Learning\\_Opportunities\\_25-26.html](https://www.mnsta.org/cgi/page.cgi/Professional_Learning_Opportunities_25-26.html)

This spring, take the step—we'll be right there with you!



Angela Kolonich, Science Education Specialist

- Learn skills and practices that support strong classroom assessment.
- Collaborate with science colleagues from across Minnesota.
- Earn Continuing Education Units (CEUs).
- Get paid to participate.

If you are interested in being part of this Science MCA-IV Item Writer Training, please enter your information into MCA Science Item Writer Application by April 26. Selected writers will be contacted the week of May 4. Writers will be chosen based on grade-level and content-area writing needs, as well as experience in developing assessments.

MDE encourages any teachers and educators interested in becoming a science item writer to apply. MDE wants to increase the impact teachers have on our Science MCA-IV assessment and look forward to engaging with more teachers around the state. If you have colleagues who might be interested in participating, please send them this information.

Please contact Science Assessment Specialist Jim Wood (jim.wood@state.mn.us) for more information.

**Invitation for Science Item Writers 2026**

MDE is inviting science educators to apply to be part of the Science MCA-IV Item Writer Training in summer 2026. The training will be 4.5 days, with approximately 15-20 additional hours needed to independently complete the writing assignments. The 2026 item writer training will focus on writing engaging grade-level phenomena and questions tied to the 2019 Minnesota Science Standards, with the goal to generate creative thinking and to engage teaching approaches to build a repository of phenomena and questions for the Science MCA-IV.

**Schedule and Process Details**

Attend required training/workdays:

- June 17 (morning only, virtual)
- July 15-16 (in person, at or near MDE)
- Aug. 4-5 (in person, at or near MDE)

Work independently to complete two phenomenon-based scenarios with 7-8 questions for each phenomenon by Aug. 12.

**Benefits for Educators**

- Build a robust understanding of and diverse perspectives on the 2019 Science standards.
- Gain insight to the creation of quality assessments that impact 60,000 students per grade.
- Expand creative thinking while developing engaging grade-level phenomena and item ideas.

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

Trans-Mississippi Biological Supply

**Amoeba**

101 Isanti Parkway NE  
Suite F, PO Box 511  
Isanti, MN 55040

763-444-9673  
[www.tmbs.com](http://www.tmbs.com)  
Email: [tmbs@tmbs.com](mailto:tmbs@tmbs.com)

Contact Us Today!



Minnesota State University - Mankato

**Save the Date!**  
November 20-21, 2026

Join us for an inspiring gathering!

**EINSTEIN project**

Program Evaluation  
Curriculum Leasing & Sales  
Professional Learning  
Instructional Coaching

Helping Teachers Achieve High-Quality Science Education

mySci OpenSciEd  
Smithsonian SCIENCE for the classroom

Email us to set up a conversation [einstein@einsteinproject.org](mailto:einstein@einsteinproject.org)

# Opportunities-ESTEP

Here it is! The SUMMER 2026 ESTEP Workshop schedule! We have 2-day and 5-day workshops happening all over Minnesota this summer! As always, workshops are low cost, and participants can earn graduate credit or a stipend! Check out the line up for this summer, and start planning! Please share the attached flyer! Registration opens soon! We can't wait!

Want to learn more? Go to [https://www.mnsta.org/ESTEP\\_SUMMER\\_2026\\_.html](https://www.mnsta.org/ESTEP_SUMMER_2026_.html)

Questions? Email [estep@mnsta.org](mailto:estep@mnsta.org)

## What is ESTEP?

ESTEP is a professional development program funded through a generous grant from the Environment and

Natural Resource Trust Fund. ESTEP supports teachers as they develop and grow their implementation of earth and environmental benchmarks into school curricula by use of Minnesota natural resources as phenomena for investigation.

*"The ESTEP classes have been the number 1 thing that have transformed my understanding of three dimensional teaching and learning. I highly recommend it to EVERY science teacher."* - ESTEP Summer2025 Water Resources participant

*"I loved everything about this two-day experience about the Soudan mine geology. The fact that the first day was spent out in the field, modeling how to question what we see at different sites was invaluable. The second day in the classroom helped to pull together everything that we saw, and made it all real. A truly amazing experience about the oldest place on Earth."* - ESTEP Summer 2025 Soudan Geology participant

*"ESTEP is an amazing OPPORTUNITY to gain content knowledge in a way that is engaging, motivating, and of such high quality. The instructors are amazing but so are all the other teachers you get to learn with. They deepen your understanding, your curriculum, your energy for teaching. It is one of the best PD opportunities in which I have participated."* - ESTEP Summer 2025 Astronomy participant

## Summer 2026 Workshops

We are about to kick off another summer of awesome ESTEP workshops around the great state of Minnesota! We've got something for everyone! Please check out what we are offering HERE! As always, our summer workshops are low cost, focused

on regional phenomena and FUN! You can earn graduate credit from Minnesota State Moorhead or a stipend, too!

## What else does ESTEP Offer?

Besides our incredible summer workshops, ESTEP also offers online courses in content and pedagogy through Minnesota State Moorhead. You earn 3 graduate credits per course, and, best of all, they are FREE! ESTEP also offers Saturday seminars. These are half-day, in-person workshops offered around the state and focus on local or regional Minnesota phenomena that you can use to supplement your curriculum, and "Minnesotify" your lessons to meet the MN Science Standards. We will soon begin offering Virtual Short Courses on a variety of topics such as: earth and environmental content reviews, 3D teaching and learning strategies, 3D assessments, and more! Our goal is to help you move forward in your knowledge and skills as a facilitator that helps our students do and use science to develop a growing and deep understanding of the natural phenomena that surrounds them. Behind the scenes, we are also working on building a repository of curated resources created by our instructors and ESTEP participants that will be available to all teachers! These resources will be freely accessible!

We hope you have a chance to participate in ESTEP programming, and we welcome any questions you have! Please reach out to Dana Smith, ESTEP Coordinator at [estep@mnsta.org](mailto:estep@mnsta.org) and check out our website for the most up-to-date information.



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)

# Opportunities-ESTEP



## Why ESTEP?

- ✓ Low cost
- ✓ Content and pedagogy based on MN Science Standards
- ✓ Participants earn graduate credit OR stipend
- ✓ Workshops facilitated by MN professors and K12 teachers

## ESTEP 2.0 SUMMER 2026 WORKSHOPS

| 5 day workshops  | 2 day workshops  |
|--|--|
| <p>June 22-26, 2026<br/><b>Geology and Resources of Central Minnesota: A Field Course</b><br/>St Cloud Area, TBD</p>     | <p>June 24-25, 2026<br/><b>Schoolyard MN Phenomena for All Students</b><br/>Bemidji, MN</p>                          |
| <p>July 6-10, 2026<br/><b>Geologic History and Resources of Southwest Minnesota: A Field Course</b><br/>St Peter, MN</p> | <p>July 14-15, 2026<br/><b>Environmental Physics: Bringing MN Phenomena into the Physics Lab</b><br/>Mankato, MN</p> |
| <p>July 20-24, 2026<br/><b>Astronomy</b><br/>Winona, MN</p>  | <p>July 22-23, 2026<br/><b>Geologic Phenomena of the Metro Area</b><br/>St Paul, MN</p>                              |
|  | <p>August 4-5, 2026<br/><b>How to Facilitate Authentic Investigations</b><br/>Metro Area, TBD</p>                    |

## Registration opens soon!

Go to [https://www.mnsta.org/ESTEP\\_SUMMER\\_2026\\_.html](https://www.mnsta.org/ESTEP_SUMMER_2026_.html) to learn more!

Questions? Email [estep@mnsta.org](mailto:estep@mnsta.org)

ESTEP is funded through 2027 through generous grant funding provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR).




# ELEMENTARY TEACHERS!

Minnesota Science Teachers Association invites PreK-6 teachers to join us at our upcoming events.

Register for this event at: [mnsta.org/Events/Events Calendar](https://mnsta.org/Events/Events%20Calendar). Or scan the QR code

There is a \$25 non-refundable registration fee. Upon successful completion of the in-person workshop, you'll receive a \$80 stipend!!

### Move Your Nature Based Teaching Practice Forward

**Saturday, April 25 9:00 AM - 12:00 PM**

**Josh Leonard** Josh leads outdoor science programming at Belwin Outdoor Science for 10,000 students in St. Paul Public Schools. Josh was named MN Environmental Educator of the year in 2016. Josh received the Alumni Service Award from the U of MN in 2021 for reducing barriers to nature for communities of color. He was awarded the MnSTA Teacher of the Year in 2023.


**Session Details:** The new science standards use the word phenomena 276 times! Where better to observe phenomena than outdoors in nature. Learn how to use nature as a science classroom and help your students pursue authentic investigations they are interested in.

**Location: Belwin Outdoor Science**  
1553 Stagecoach Tr South Afton, MN 55001



Please bring outdoor clothing and gear as part of this session will take place outdoors. Snacks will be provided. Please bring your own beverage and/or water bottle.

Keep your eye out for future events! Follow us on Facebook and Instagram and make sure you are getting the weekly digest of amazing events!



✉ [estep@mnsta.org](mailto:estep@mnsta.org)

**Wave Energy and Environmental Impact**

A Physical and Earth Science Workshop from the MN Science Teachers Assn.

Saturday, April 18, 10 AM – 1 PM In-person at 7 sites across Minnesota  
Strengthen your teaching of wave motion concepts and apply them to Minnesota environmental phenomena. Experience and reflect on sensemaking instruction. Collaborate with teachers of science from your region. Gain resources, a stipend, a continuing education certificate, and snacks. Targeted at upper elementary and middle school core ideas with wider application.

**Applicable science benchmarks**

- 8P.2.2.1.1 Wave energy
- 8P.3.1.1.4 Wave behavior
- 6E.2.1.1.3 Natural hazards
- 5P.2.1.1.1 Energy transfer

**Locations (details will be sent after registration)**

East Metro, West Metro, Rochester, Mankato, Duluth area, Little Falls, Willmar  
Facilitation: Each site will have a teacher facilitator with coordination via Zoom by lead instructors Dana Smith and Eric Koser.

**Registration:** Register by April 13 at <https://bit.ly/WavesApril2026> and pay a \$25 deposit. This will be refunded after the workshop. You will receive a \$50 stipend check.

Questions: Contact John Olson, [treasurer@mnsta.org](mailto:treasurer@mnsta.org)

**Radio Astronomy Workshop**

When: July 13 - 16, 2026

Where: Winona State University

Contact: [adam.beardsley@winona.edu](mailto:adam.beardsley@winona.edu) Space is limited! Sign up now!

Sign Up: [https://mnscu.rschooltoday.com/public/costoption/class\\_id/311452/public/1/](https://mnscu.rschooltoday.com/public/costoption/class_id/311452/public/1/)



# Radio Astronomy Workshop

**Build your own radio telescope!**

Spend a week at Winona State University building a telescope to observe hydrogen gas from the Milky Way galaxy. We will talk about astronomy across the electromagnetic spectrum, radio frequency electronics, signal processing, and data analysis. The telescope you build is **yours to keep!** Bring home your own exciting club project or integrate into your class!

- ➔ Work with faculty and researchers from Winona State and McGill Universities
- ➔ Classroom activities to address Next Generation Science Standards
- ➔ Learn and teach astronomy, electronics, and data science
- ➔ Earn Continuing Education Units

When: July 13 - 16, 2026  
Where: Winona State University  
Contact: [adam.beardsley@winona.edu](mailto:adam.beardsley@winona.edu)  
Sign Up: [https://mnscu.rschooltoday.com/public/costoption/class\\_id/311452/public/1/](https://mnscu.rschooltoday.com/public/costoption/class_id/311452/public/1/)  
Space is limited! Sign up now!

## Now! Earn College Credit for Jeffers Institutes

Jeffers Foundation Education Certificate

Earn a *Team Teaching with Minnesota's Natural Environment* certificate by completing 5 institutes (10 semester credits) offered as co-sponsored courses with the Jeffers Foundation and Hamline University Continuing Studies.

Jeffers Foundation Institutes provide educators with experiences that raise their content knowledge while modeling practices that promote science and literacy instruction. Institutes will focus on outdoor investigations and journaling experiences. Educators will discover how outdoor instruction heightens engagement and achievement in science and all subject areas. Science-focused institutes will embed multidisciplinary experiences that promote connections of science concepts and practices to all subject areas, leading to real-world teaching and learning.

Minnesota's natural environment is a partner (team teacher) that can help educators reach ALL students. Educators will learn techniques, activities, and resources in each institute that can be readily implemented on their school grounds. There, they will notice the positive impact outdoor learning will have on their science instruction, the writing and communication skills of their students, and the positive attitude and stewardship students will develop for their school grounds and surrounding natural environment.

### 1 Certificate Program: Option for College Credits

10 semester credits from the co-sponsored institutes lead to a Jeffers Foundation "Team Teaching with Minnesota's Natural Environment" certificate awarded by Hamline University Continuing Studies.

Each co-sponsored Institute = 2 semester credits (equals 48 contact/instructional hours)  
Reduced rate for co-sponsored Institutes = \$200/credit (\$400/institute)

OR

### 2 Jeffers Foundation Institutes: Option for FREE CEUs

Educators can register for any Jeffers Foundation Institute for FREE and earn CEUs awarded by the Jeffers Foundation as has been customary for Jeffers Institutes and Workshops for 15+ years. Institutes are offered (simultaneously) for Teacher Continuing Education Units (CEUs) and Credits. Registration for co-sponsored Institutes will be completed through Hamline University Continuing Studies <https://elearn.hamline.edu/>

With this new model, educators can continue to register and participate for free in Jeffers Content Institutes (now with expanded topic options) or they can register for the credit option and apply the institutes toward a Jeffers Foundation *Team Teaching with Minnesota's Natural Environment* certificate awarded by Hamline University Continuing Studies.

The Jeffers Foundation continues to provide professional development that promotes environmental stewardship and outdoor learning opportunities for educators and their students on their school grounds, and beyond. We look forward to working with and supporting educators in this mission as they join us for one or more institutes, or possibly to complete the 10 credit certificate.



Questions: Contact David Grack, EdD at [david.grack@jeffersfoundation.org](mailto:david.grack@jeffersfoundation.org)

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



## Jeffers Foundation Education Certificate



Team Teaching with Minnesota's Natural Environment

### Upcoming Institutes

#### SPRING

**Birding Institute** - April 11 & 18, 2026  
(Offered annually)

#### WINTER

**The Outdoor Classroom: Winter\***  
January 2027  
(Dates TBD, offered annually)

#### SUMMER

**Patterns in Nature Institute** - June 16-18, 2026 (Offered every-other-year)  
**The Outdoor Classroom\*** - July 13-15, 2026 (Offered annually)  
**Earth Science Outdoors** - July 27-29, 2026 (Offered every-other-year)

#### SUMMER / FALL 2027

**Insect Institute** - Summer 2027 (Offered every-other-year)  
**Ecology Institute** - Summer or Fall 2027 (Offered every-other-year)  
**ELA Outdoors** - Summer or Fall 2027 (Offered every-other-year)

#### FALL

**Nature Journaling Institute** - September 19-20, 2026 (Offered every-other-year)

\*Educators must complete at least one of these two institutes in order to earn a certificate.



Questions: Contact David Grack, EdD at [david.grack@jeffersfoundation.org](mailto:david.grack@jeffersfoundation.org)

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



Our 6th Annual  
**BIRDING INSTITUTE**

Make science teaching and learning soar through local bird study



See who is visiting in our unique 'feeder village' and our ponds



Students love observing and journaling birds.

"Participating in the birding institute has been an inspiring and transformative experience for me, both personally and professionally... I highly recommend this workshop to all educators and bird enthusiasts. It's more than just a professional development opportunity - it's an invitation to see the world differently." (Nicole R., HS biology teacher)

Ornithology, the scientific study of birds, provides real-world science applications for teachers and students. Observation and investigation skills learned during bird study enhance student motivation to experience science both indoors and outdoors and apply science concepts to the natural world. Participants will strengthen their knowledge of local birds, connect science curriculum to ornithology content, examine tools and technology to be used with their students, and develop ideas to use both indoor and outdoor spaces to lead bird lessons throughout the year connected to grade-level science curriculum.

**Who:** Teacher Institute for K-12 educators

**What:** Professional development by David Grack, Ed.D. Sponsored by Jeffers Foundation

**When:** Saturdays, April 11 and 18 2026 8:00am - 4:00pm. Both dates - Lunch included

**Where:** Jeffers Lodge, Prior Lake, MN

**CEU's & Credit:** NEW - 2 Options

- 2 Semester Credits: Reduced rate of \$200/credit thru Hamline University Continuing Studies
- 20 CEU's: CEU certificate granted by the Jeffers Foundation

**Registration:** Online at <https://elearn.hamline.edu/> through Monday, April 6.

Select the option you prefer (credits or CEUs) and complete registration.



Participants receive a copy of *Birds of the Northwoods Activity Book* (Grack, 2007)

Jeffers Lodge  
3884 Fountain Hills Dr. NW  
Prior Lake, MN

South on Hwy. 169 (cross MN River)  
exit on County 21. Follow County 21  
3.8 miles to Fountain Hills Drive.  
Take an immediate right at  
Lil' Explorers Childcare.



Questions - Contact: [david.grack@jeffersfoundation.org](mailto:david.grack@jeffersfoundation.org)



Environmental Stewardship Through Education

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

**PATTERNS IN NATURE INSTITUTE**

Explore nature to identify patterns in the structure and function of plants and animals



Experience activities indoors and outdoors to observe and identify natural patterns in plants and animals in our environment. Plants and animals have adapted in many ways to survive, and this course is designed to provide opportunities to explore and investigate them. Be introduced to: forest and tree structure, bird body structure and adaptations, animal signs and tracks, insect and plant interactions, and more. Activities will include nature journaling, nature photography, indoor and outdoor labs, and more.

**Who:** Teacher Institute for K-12 educators

**What:** Professional development by David Grack, EdD. Sponsored by Jeffers Foundation.

**When:** Tuesday - Thursday, June 16-18, 2026 8:00am - 4:00pm Lunch Included

**Where:** Jeffers Lodge, Prior Lake, MN

**CEU's & Credit:** NEW - 2 Options

- 2 Semester Credits: Reduced rate of \$200/credit thru Hamline University Continuing Studies
- 27 CEU's: CEU certificate granted by the Jeffers Foundation

**Registration:** Online at <https://elearn.hamline.edu/> through Tuesday, June 11.

Select the option you prefer (credits or CEUs) and complete registration.

Jeffers Lodge  
3884 Fountain Hills Dr. NW  
Prior Lake, MN

South on Hwy. 169 (cross MN River)  
exit on County 21. Follow County 21  
3.8 miles to Fountain Hills Drive.  
Take an immediate right at  
Lil' Explorers Childcare.



Questions:  
Contact David Grack, EdD at:  
[david.grack@jeffersfoundation.org](mailto:david.grack@jeffersfoundation.org)



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



# OUTDOOR CLASSROOM INSTITUTE

Incorporating Multidisciplinary Lessons on YOUR School Grounds



**Who:** Teacher Institute for K-12 educators

**What:** Professional development by David Grack, EdD. Sponsored by Jeffers Foundation.

**When:** Monday - Wednesday, July 13-15, 2026 8:30am - 3:30pm Lunch Included

**Where:** Jeffers Lodge, Prior Lake, MN

**CEU's & Credit:** NEW - 2 Options

- 2 Semester Credits: Reduced rate of \$200/credit thru Hamline University Continuing Studies
- 23 CEU's: CEU certificate granted by the Jeffers Foundation

**Registration:** Online at <https://elearn.hamline.edu/> through Tuesday, July 7.

Select the option you prefer (credits or CEUs) and complete registration.

**Join the Jeffers Foundation to participate in outdoor lessons** that apply to multiple subject areas with a science focus, and gain and share tips to become more confident leading outdoor lessons with your students. This teacher institute will focus on outdoor instruction and the application of Jeffers Foundation teaching resources that have been designed by Minnesota teachers. Multidisciplinary lessons centered on science concepts will include: general observation skills, reading the landscape of your school grounds, Phenology, plants and animals, weather, and designing and conducting investigations to develop science and inquiry skills while working outside using science journals.

**Jeffers Lodge**  
3884 Fountain Hills Dr. NW  
Prior Lake, MN

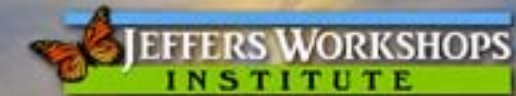
South on Hwy. 169 (cross MN River)  
exit on County 21. Follow County 21  
3.8 miles to Fountain Hills Drive.  
Take an immediate right at  
Lil' Explorers Childcare.



**Questions:**  
Contact David Grack, EdD at:  
[david.grack@jeffersfoundation.org](mailto:david.grack@jeffersfoundation.org)



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



# Earth Science OUTDOORS

Expand your Horizons: Reach for the Stars and Dig into Earth Science



**Join the Jeffers Foundation to uncover Earth and Space Science** core ideas while teaching and learning outdoors. This three-day institute focuses on the core ideas of: **weather, sun/stars/moon, Minnesota Geology, water and watersheds, erosion, and human impacts** on the environment. Educators will be engaged in science practices as they **conduct field investigations**, collect and present data while using journals, design and discuss solutions to minimize human impacts on the environment while **working on engineering challenges**, and more. Instruction will also include crosscutting concepts that focus on **developing and using models** while capitalizing on using one's school grounds as an essential extension of the Earth Science classroom.

**Who:** Teacher Institute for K-12 educators

**What:** Professional development by David Grack, EdD. Sponsored by Jeffers Foundation.

**When:** Monday - Wednesday, July 27 - 29, 2026 8:30am - 3:30pm Lunch Included

**Where:** Jeffers Lodge, Prior Lake, MN

**CEU's & Credit:** NEW - 2 Options

- 2 Semester Credits: Reduced rate of \$200/credit thru Hamline University Continuing Studies
- 23 CEU's: CEU certificate granted by the Jeffers Foundation

**Registration:** Online at <https://elearn.hamline.edu/> through Tuesday, July 21.

Select the option you prefer (credits or CEUs) and complete registration.

**Jeffers Lodge**  
3884 Fountain Hills Dr. NW  
Prior Lake, MN

South on Hwy. 169 (cross MN River)  
exit on County 21. Follow County 21  
3.8 miles to Fountain Hills Drive.  
Take an immediate right at  
Lil' Explorers Childcare.

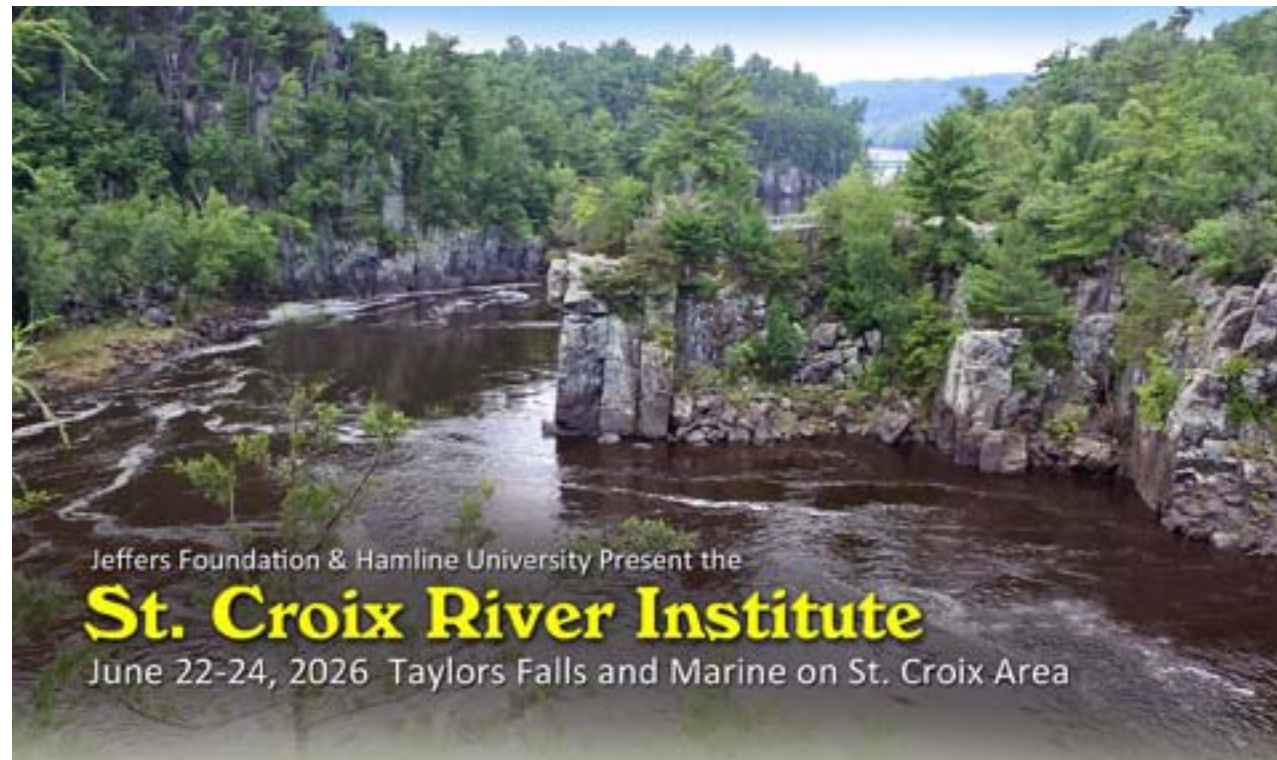


**Questions:**  
Contact David Grack, EdD at:  
[david.grack@jeffersfoundation.org](mailto:david.grack@jeffersfoundation.org)



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





Jeffers Foundation & Hamline University Present the  
**St. Croix River Institute**  
 June 22-24, 2026 Taylors Falls and Marine on St. Croix Area

Join us FACE-TO-FACE this summer as Hamline University's Center for Global Environmental Education (CGEE) and the Jeffers Foundation present the St. Croix River Institute, a free, three-day, field-based professional development opportunity for educators.

The St. Croix Institute is designed to increase teachers' science content knowledge and investigation skills and help area educators translate their professional experiences into meaningful, engaging classroom investigations. The focus for the institute is on elementary through high school classroom teachers as well as teams of teachers, but all are welcome to apply!

- Three full days of experiential instruction and lunches
- The *Waters to the Sea*® multimedia tool
- 24 continuing education units (CEUs)
- The option to purchase two graduate credits at a reduced rate of \$200/credit

| Monday, June 22  | Tuesday, June 23  | Wednesday, June 24  |
|--|---|---|
| Location: Interstate State Park  | Location: William O'Brien State Park  | Location: William O'Brien State Park  |
| The Institute will begin at Interstate State Park. Participating educators will be introduced to the geology of the St. Croix River Valley and develop a sense of place and a connection with the water. The day includes exploration at the Glacial Potholes Area and a canoe experience from Interstate State Park to Osceola Landing. Instructors will guide the group through a seven-mile stretch of river during which participants will observe the landscape and wildlife of the St. Croix River. Lunch will be provided at Eagles Nest Picnic area about halfway along the canoe journey. Journaling and instructional experiences will take place at three locations along the journey. This common field experience will set the stage for investigations throughout the rest of the institute. | Day two will begin with a reflection on the experiences from day one as captured by participating educators in their journals. The river will be explored today through the lenses of water quality and riparian forest habitat. Participants will investigate stream life and identify forest types in William O'Brien State Park. Short walks and guided investigations will engage students as they build their understanding of the natural environment of the St. Croix River. | On the final day participants will be engaged in a mixture of hands-on investigations and history/culture experiences that focus on William O'Brien State Park and the larger St. Croix Valley and watershed. Citizen science projects and engineering projects aim to connect participants to their local watersheds as well as the St. Croix River. A series of journaling activities embedded throughout the 3-day institute aim to engage participating educators as students and engage in conversations about how they can transfer the ideas, techniques, and resources for learning about the St. Croix River and put them into practice with their students. |

Register at: <https://cgee.hamline.edu/cornerstone-programs/professional-development-and-graduate-programs/teacher-institutes>

Questions: Contact David Grack, EdD at: [david.grack@jeffersfoundation.org](mailto:david.grack@jeffersfoundation.org)



Center for Global Environmental Education [JeffersFoundation.org](http://JeffersFoundation.org)



**JEFFERS GRANTS**

**2026 Grants currently available for outdoor environmental education**

Check out the Jeffers Grants page on our website

### Environmental Experience Transportation Grants

The high cost of transportation is keeping many teachers from bringing their classes to the state's many environmental learning experiences. Jeffers is here to help with transportation costs. This can include travel to local nature centers, SNA's, regional parks, Residential Environmental Learning Centers (RELCS), etc. Travel must be within Minnesota and completed during calendar year 2026. Up to \$2,000 per event.

### Outdoor Classroom Construction Grants

Schools that dedicate a part of the school grounds to outdoor education will reap powerful benefits. Having a dedicated space to stage outdoor learning events makes this process easier for teachers and more stimulating for students. Such a space can range from simple benches in a semicircle, to landscaped places with boulders and bird feeders... to roofed shelters with picnic tables... and more. Jeffers Foundation is offering a limited number of up to \$5,000.00 matching grants to schools or other 501c3 organizations throughout the state that would like to begin or enhance outdoor learning spaces.

### Schoolyard Garden Grants

Our popular schoolyard garden grants are back! Nearly 100 schoolyard gardens have been started or improved with these grants over the years. Check out our Garden 4 Every School page on our website and watch a few videos. We support any kind of garden as long as it is used as an educational resource for your students. Grants are now available up to \$2,000 and need to be completed within two years.



### Innovation in Environmental Education Grants

We believe students who receive powerful experiences with nature-based lessons will grow to love and care for our beautiful planet. We also believe these experiences can last a lifetime. Jeffers Foundation is offering a limited number of up to \$5,000.00 grants to schools or 501c3 organizations in Minnesota that have new, 'out-of-the-box' ideas or programs that support these ideals. Jeffers is all about innovation! If your request results in a grant, we plan to share your experience with other educators throughout the state. Must be completed within two years.

Environmental Stewardship Through Education

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



# Wetland Conservation Workshop and student conservation action project



Professional Development for K-5 Teachers



|               |   |
|---------------|---|
| <b>When:</b>  | June 23-25, 2026 9 am - 3 pm  |
| <b>Where:</b> | Minnesota Zoo 13000 Zoo Boulevard Apple Valley, MN 55124  |
| <b>Cost:</b>  | \$75 - Includes light breakfast and lunch each day<br>*Teachers will also receive 18 clockhours |

## Explore Local Wetlands with Students to Save Wildlife

With its 10,000+ lakes and variety of wetlands, Minnesota is a paradise for freshwater turtles and many other wetland wildlife species. Unfortunately, freshwater turtles and their wetland ecosystems today face a variety of threats that are putting their future in Minnesota at risk.

Join Minnesota Zoo naturalists to learn strategies for how to guide your students outdoors in exploring their local wetland and take on a real conservation action project centered on helping MN freshwater turtles and wetland wildlife, engaging their community, raise awareness, and preserve their wetland.

In this training, teachers will also participate in hands on activities focused on wetland and turtle conservation science, using nature journaling as a tool to explore and gather data about wetland phenomena, and guiding a student-driven culminating conservation project near school. The Minnesota Zoo's Turtle and Mussel Conservation Biologists will also share about the work being done to protect and save these threatened wetland species. All participants have access to a collection of digital wetland and turtle education resources.



To learn more or register visit: <https://mnzoo.org/professional-dev/> [stem@mnzoo.org](mailto:stem@mnzoo.org)

### ***Borchert Map Library Teacher Fellowship***

The Borchert Map Library Summer Teacher Fellowship Program is an opportunity for teachers to explore resources at the Library, learn new technology and build engaging learning activities for their students.

[Learn more and apply!](#)

## 2026 - 2027 Ecology Professional Development Workshops

**VISIT**  
[z.umn.edu/  
PIMS](https://z.umn.edu/PIMS)

### Phenology Investigations in Minnesota Schools (PIMS)

Highlights

- Grades 6-12 MN science/ag classroom teachers
- June 13-14, 2026 | October 10-11, 2026 | January 30-31, 2027 | May 1-2, 2027
- Location: Prairie Woods Environmental Learning Center, Spicer, MN - focus on Minnesota's prairie biome
- Free room & board available for all participants at Green Lake Lutheran Ministries retreat facility
- Free UMN graduate credit offered
- Driven to Discover: Phenology & Nature's Notebook curriculum

Questions? Contact Jess Paulson, UMN Program Director, at [PaulsonJ@umn.edu](mailto:PaulsonJ@umn.edu)



## ATTENTION: SCIENCE TEACHERS GRADES 4-12!

Student scholarship opportunity for outdoor learning on the North Shore.

Thanks to funding partners, Wolf Ridge Environmental Learning Center, located in Finland, Minnesota, is offering scholarships to schools.

### DOES YOUR SCHOOL QUALIFY?

Your school may qualify for scholarships at either the school-wide or individual student level. Scholarships can be used for tuition, lodging, and meals for 3 days/2 nights or 5 days/4 nights for students in grades 4-12, for groups from 15 to 350 people. School year and summer programming is available.

### ABOUT WOLF RIDGE

Wolf Ridge is an accredited residential environmental school located on the North Shore featuring a nationally recognized curriculum that aligns with state academic standards, Common Core, and Next Generation Science Standards. Instructors involve students in the direct observation, inquiry, and exploration of wild forests, wetlands, lakes, and streams.

### Features include:

- 2,000-acre classroom on the North Shore
- 68-acre field station on Lake Superior
- 18 miles of hiking and ski trails
- Multiple lakes and streams
- Dining hall with produce from our organic farm
- Indoor rock-climbing walls and outdoor ropes courses



### INTERESTED?

Please reach out to Wolf Ridge K-12 Program Coordinator Emily Pavlisich ([scheduling@wolf-ridge.org](mailto:scheduling@wolf-ridge.org) or 218-353-7414, ext. 107) with questions or to find out if your school is eligible for scholarships. Learn more at [wolf-ridge.org/programs/educators/k-12-class-trips](http://wolf-ridge.org/programs/educators/k-12-class-trips).

## ARE YOU TIRED OF...

- endless online searching for classroom resources?
- never-ending PDF "lesson plans"?
- materials that look good but hard to use?
- instructional materials that do not align with student needs?

## JOIN THE WONDRUS EDUATORS COUNCIL.

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



Get paid to give feedback to science museums and research institutions on their classroom resources!



The Minnesota Science Teachers Association

It is our mission to: stimulate, coordinate, and improve science teaching and learning for all.

## Why Join MnSTA?

- Keep up with the latest developments in science education
- Network with peers from around the state
- Help us advocate for science education at the district and state level



Join at [mnsta.org](http://mnsta.org)





## Follow Us on Social Media

Follow us for PD, ESTEP updates, NSTA news, and more!

-  on BlueSky @mnsta.bsky.social
-  on Instagram @mnsclenceteachers
-  on Twitter @mnsta1
-  **Public page:** Minnesota Science Teachers Association - MnSTA  
**Members-only:** Minnesota Science Teachers Association members

## 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 [www.mnsta.org](http://www.mnsta.org)
- Instagram @mnsclenceteachers
- MnSTA Facebook and Twitter pages (@MnSTA1)
- Weekly Digest of postings (sent via email)
- Updates from MDE Science Specialist Angela Kolonich (newsletter)
- 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 Addresses, 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

# Contacts and Resources

## 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...

## 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](#)

## 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](mailto:angela.kolonich@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 Angela Kolonich [angela.kolonich@state.mn.us](mailto:angela.kolonich@state.mn.us)

### Other Minnesota Links:

Minn. Dept. of Education [Science Page](#)

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

[Frameworks](#) for MN Science and Mathematics Standards

Get – [STEM](#) Connections between schools and businesses

Mn-STEM STEM programs and [resources](#) for families, schools and communitySharing Environmental Education Knowledge environmental education [resources](#)

[Minnesota Academy of Science](#): Science Fair, Science Bowl and other competitions Mn DNR Education website: [Curriculum, professional development, posters, etc.](#)

[Youth Eco Solutions](#) (YES!) – Statewide, youth-led program for hands-on eco related projects

# MnSTA Board

## Executive Board



Dr. Tom Meagher  
Executive Secretary



Halcy Kalina  
MnSTA President



Dr. Missle Olson  
President-Elect



John Olson  
Treasurer



Dr. Angela Kolonich  
MDE Science Specialist  
-ex officio member

## Auxiliary Board



Kristin Caquelin  
Web Content Curator



Eric Koser  
Webmaster



Dr. Dan Voss  
Social Media Coordinator



Jerry Wenzel  
Newsletter Editor

# MnSTA Board Discipline Directors



Dana Smith  
Earth Sci



Kim Benton  
Metro Elem.



Dr. Jeff Pribyl  
Higher Ed.



Jason Hall  
Physics



Jillian Harvalis  
Chemistry



Felicia  
Leammukda  
Informal Ed.



Mark Peterson  
Private Schools



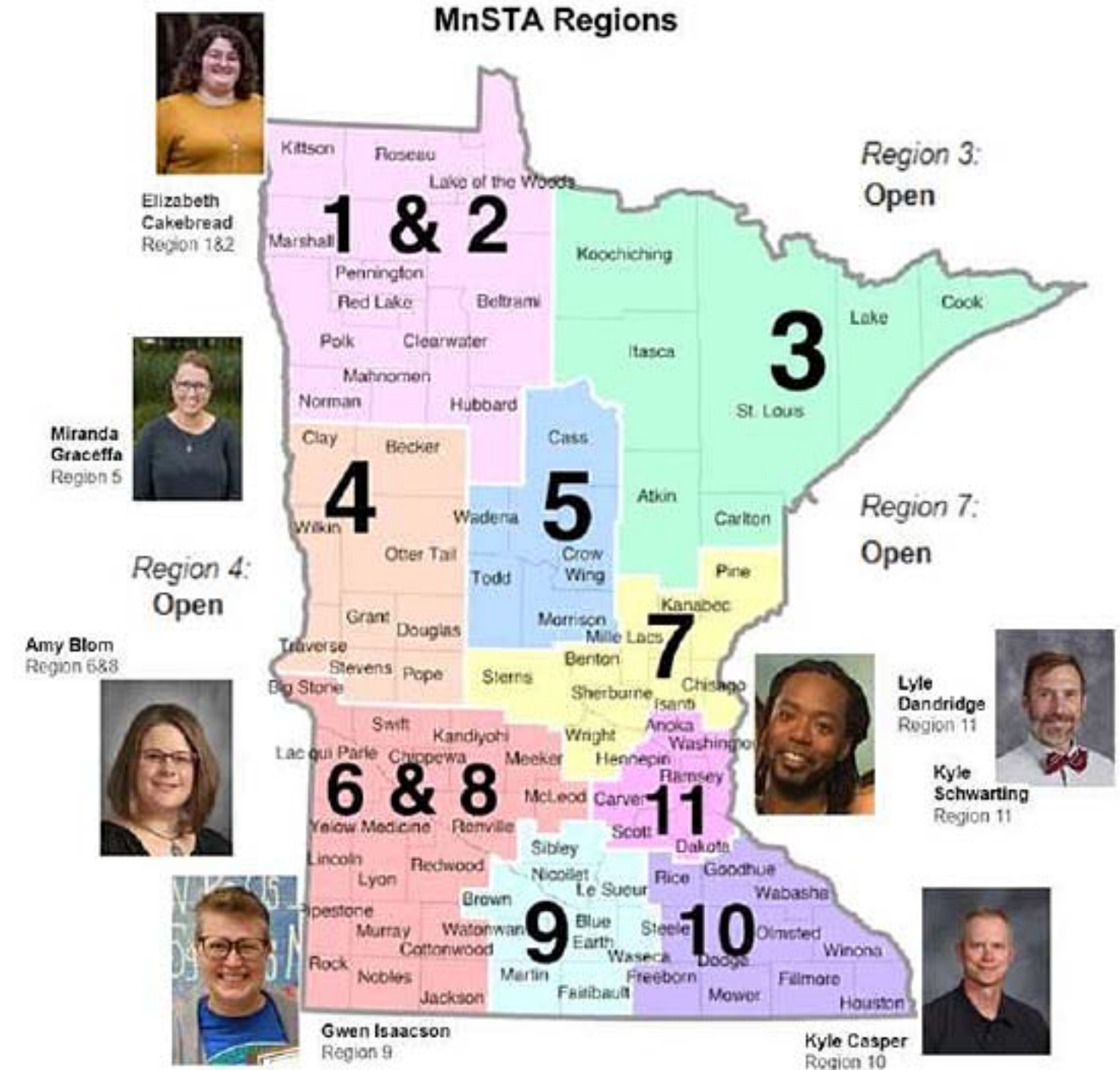
Jess Paulson  
Alt/Charter Ed.



Dr. Hillary  
Barron  
Indigenous Sci

Please engage  
and connect with  
them throughout  
the year!

# MnSTA Board Region Representatives



# Membership Application Form

## MnSTA Membership Application Form

Join the Minnesota Science Teachers Association (MnSTA), the professional organization whose primary goal is the advancement of science education. Mail this form along with your check to:  
MnSTA Treasurer, 24405 Iceland Path, Lakeville, MN 55044

### Home

Name (First, MI, Last)

Address

City

State

Zip code

Phone number

Preferred email address

Second email address

### School/Organization

Name

Address

City

State

Zip code

Phone number

School district #  
(enter "P" if Private, "A" if Alternative, "C" if Charter)

### Rates

- Basic Membership ..... \$25
- First Year Teacher ..... \$15
- Retired Teacher ..... \$15
- Pre-service Student..... \$10
- Elementary School Building ..... \$75  
Includes all teachers in the building
- Life Membership: to age 35 ..... \$400  
age 36-50 ..... \$300  
over 50 ..... \$200

- New Member       Renewing/Past Member

A joint MnSTA - NSTA membership is available through NSTA (<https://www.nsta.org>)

### Discipline and Grade Level

- Biology
- Chemistry
- Earth Science
- Environmental Sci
- Life Science
- Physical Science
- Physics
- Elementary (PreK-2)
- Elementary (3-6)
- Middle/Jr. High School (6-9)
- High School (9-12)
- College/University
- Informal Ed

#### MnSTA Photo Release Statement

By becoming a member of the Minnesota Science Teachers Association (MnSTA) or by attending any MnSTA-sponsored event, you are granting permission for the use of your image for MnSTA promotional purposes without compensation. If you have questions regarding this policy, please contact [membership@mnsta.org](mailto:membership@mnsta.org)

### Privacy Information

Who can view your School/Organization Profile?  Members       Administration only

MnSTA keeps you informed about the events and issues impacting science education in Minnesota through its website and an email Digest of those website postings, and periodic informational emails.

Do you consent to receive email communications from us?  Yes       No

### Teacher Leadership

Please contact me regarding additional involvement and/or potential leadership opportunities with MnSTA