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## Courtesy Copy: Science Updates, Opportunities, and Resources - March 2023 - Issue #2

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**This is a courtesy copy of an email bulletin sent by Leanne Weber.**

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# Science Updates, Opportunities, and Resources

March 2023 - Issue #2

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## Elementary School (Grades K-5)

### OpenSciEd Elementary Science Field Study – Cost to Participate

[OpenSciEd](#) is seeking K-5 teachers and school teams to be involved in a two-year field study of their elementary science curriculum. Interested participants can view the informational webinar [recording](#) and [slide deck](#), or [flyer](#) with contact information.

## Middle School (Grades 6-8)

None at this time.

## High School (Grades 9-12)

### Three New Quality HS Units Posted

In the OpenSciEd *P.1: Energy Flow from Earth's Systems* high school unit, students make sense of the February 2021 Texas power crisis by figuring out how energy transfers between systems and what makes energy sources reliable. Students then design a reliable energy solution that meets their communities' needs based on interviews with friends and family members. The unit was awarded the [NGSS Design Badge](#) by NextGenScience's cadre of expert reviewers. See the unit and the corresponding EQulP Rubric for Science evaluation report [here](#).

In the OpenSciEd *B.1: Ecosystems: Interactions, Energy, Dynamics* high school unit, students use the Serengeti National Park as a case study to figure out ecosystem and conservation principles and apply that understanding to conservation dilemmas in the US. By engaging with real-world conservation dilemmas and exploring various interest-holder perspectives, students identify the trade-offs humans make as they manage natural resources to support human society as well as the natural systems we live in. The unit was awarded the [NGSS Design Badge](#) by NextGenScience's cadre of expert reviewers. See the unit and the corresponding EQulP Rubric for Science evaluation report [here](#).

In the OpenSciEd *C.1: Thermodynamics in Earth's Systems* high school unit, students figure out how rising sea levels cause some communities of people to have to move. Through investigations, simulations, and system models, students figure out how decreasing carbon dioxide emissions and two geoengineering solutions could help slow polar ice melt, protecting coastal communities. The unit earned a rating of *High Quality NGSS Design if Improved* by NextGenScience's cadre of expert reviewers. See the unit and the corresponding EQulP Rubric for Science evaluation report [here](#).

### Pathways to Credit

While the [Michigan Merit Curriculum](#) is not new, the flexibility that it affords to locally develop creative pathways for students to earn 3 science credits by showing proficiency on the required 71 high school [MI Science Standards](#) is often underutilized. Do you know of a creative pathway? Complete this [short form](#) to share today!

## Opportunities & Resources

### **MSU Science Festival – April 2023**

Michigan State University invites both public and K12 audiences to celebrate the wonders of science throughout the month of April with **200+ FREE events** during the MSU Science Festival. All events are FREE and are in-person on MSU's campus and/or at statewide locations. The event kicks off on campus with STEAM Expo Days on April 1st and 2nd with over 100 hands-on activities, demonstrations, and talks with experts across the STEAM disciplines. School programs are now open for teacher signup at [sciencefestival.msu.edu/schools](https://sciencefestival.msu.edu/schools) and the full schedule of public events can be found at [sciencefestival.msu.edu/](https://sciencefestival.msu.edu/)

### **Native Voices in STEM**

This professional seminar series invites Native scientists, engineers, activists, community members and leaders to share their personal and professional journeys, providing inspiration to the next generation of change makers. Click [here](#) to view past recordings and to register for upcoming events.

### **Using Nature Journaling to Identify Meaningful Local Phenomena**

This new [STEM Teaching Tool \(#92\)](#) provides guidance for educators to use Nature Journaling, a strategy where students record their experiences and observations with natural environments through various modalities. The tool provides suggestions for finding phenomena and problems that would be relevant and authentic to students and for supporting relationship building between communities and students.

### **Infusing Mainstream STEM Education with Indigenous Culture, Language and Values**

Historically, the STEM education field has excluded perspectives from minority student groups, especially those from indigenous communities. This [article](#) highlights the work of WestEd's Dr. Sharon Nelson-Barber in incorporating indigenous and other non-dominant cultural perspectives, values, and languages in STEM teaching and assessments.

## **NAEP Science Framework Update**

The National Assessment Governing Board is currently in the process of reviewing and updating the National Assessment of Educational Progress (NAEP) [Science Assessment Framework](#), which was last updated in 2005. As part of the process, a working draft of the recommended updates is made available for public review and feedback prior to review, revision, and final approval from the Governing Board. Public feedback is an essential part of the process to update NAEP assessment frameworks. The public comment period is from March 13 to April 17. Please join the Governing Board for one of our informational webinars on the working draft of the Science Assessment Framework for stakeholders to gain clarity and provide feedback. Click [here](#) for a list of webinar descriptions and dates.

## **Save the Date - Assessment Committee Participation**

The application will open soon to participate in the Science Assessment Committee. Save the following dates if you are interested in participating.

- Science Content Review: May 23-24, 2023
- Science Bias/Sensitivity Item Review: May 25, 2023
- Item Cluster Development: July 17-21, 2023
- Content Data Review: August 8-9, 2023
- Bias/Sensitivity Date Review: August 10, 2023

## **Great Lakes Watershed Field Course – No Cost, Space is Limited**

The Great Lakes Watershed Field Course (GLWFC) is a 4-day professional development experience for teachers throughout the Great Lakes region. The 2023 course will take place from August 8th-11<sup>th</sup> in Suttons Bay, MI. Training in the course includes watershed and environmental concepts, place-based education and environmental education pedagogy, and time for curriculum development. The GLWFC is open to teachers in all content areas, but teachers who participate are required to implement a watershed-

based stewardship action project with their class. Inland Seas supports teachers throughout the school year with additional training, online forums, and other forms of assistance. Applications are due April 24, click [here](#) for more information.

### **Talk Climate Gathering – Virtual Event – Cost to Participate, Scholarships Available**

The Talk Climate program's virtual three-day event, May 23–25, offers a space to celebrate and connect around the transformational power of climate storytelling. Over the course of three days, you will engage in workshops to help cultivate an understanding of the importance and power of climate stories, while you create your own narrative. Click [here](#) for more information.

### **Summer Institute for Climate Change Education – Virtual Event – Cost to Participate**

The Teach Climate Network's three-day climate change education conference, July 17–21, 2023, is built by educators and climate change professionals from across North America. This energizing experience connects educators to an engaged community seeking to build collective strength to inspire hope and action in our communities. Click [here](#) for more information.

### **Michigan Space Grant Consortium Opportunities**

There are quite a few upcoming opportunities happening over the next couple of months. Visit the [MSGC website](#) and be sure to scroll down the list to view *K-12 Opportunities* and *Educator Opportunities*.

### **M-STEP Resources**

The Michigan Student Test of Education Progress (M-STEP) will begin in April. Resources are available through the MDE Office of Educational Assessment and Accountability [website](#). Students can be familiarized with the online testing format by completing the online sample item sets. Click [here](#) for directions and links for accessing the sample item sets.

## Teacher Appreciation Month

MDE would like to invite students and community members to help highlight our state's incredible teachers and show their gratitude to those teachers who have positively impacted them through a digital video submission to recognize and thank a specific teacher for his/her impact. Click [here](#) for more information.



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