

#### Hello Education Colleagues,

I hope to see you at the <u>WSST Conference</u> in a few weeks in La Crosse. There are so many excellent sessions and opportunities (the schedule is now available) - I'm looking forward to it!

Below are a few science education resources I've heard about. If you have announcements to share about science or STEM-related professional learning and resources, please send them my way for the next edition. A record of these emails can be found on my website: dpi.wi.gov/science/social-media.

Cheers, Kevin

# **Learning Opportunities**

- Transforming Systems for Innovation Leadership Institute/Retreat July 15-18
- OpenSciEd Summer Learning with the Einstein Project in Green Bay June 17-20
- WI Institute for Next Generation Science (WINGS) July 14-18
- DPI Elementary Science Leadership Workgroup now through this summer
- Summer DPI State Assessment Work ACT and Forward Exam
- Yerkes Observatory Student Field Trips and Teacher Summer Workshop
- UW-Madison AP Summer Institutes 2024
- WIDA Professional Learning Resources Supporting English Learners

#### Resources

- Wi Science Education Leadership Association Feb notes
- Safety in STEM Classes article from NSTA
- How do you talk about climate change in your classes?
- Phenomenon the Challenge of Space Debris!
- Eclipse Articles and Resources Looking forward to April 8th!

### **Student Opportunities**

• Great Lakes BioBlitz - April 22 - May 18

#### **Details**

## **Learning Opportunities**

Transforming Systems for Innovation - Leadership Institute/Retreat - July 15-18

https://dpi.wi.gov/cal/2024-summer-institute - This summer leadership retreat is intended for school or district teams to learn together, network, and make progress on an innovative new project/initiative. It will take place at <a href="Lowenwood">Lowenwood</a> (former Conserve School) up in the beautiful Northwoods near Land O' Lakes from the afternoon of July 15th through the morning of July 18th. The institute is <a href="free">free</a>, with lodging in dorms and meals included. After an action plan has been submitted, selected teams will also receive funding to support their work. Virtual connections will continue through the school year. An initial review of applications will take place April 17th.

OpenSciEd Summer Learning with the Einstein Project - Green Bay June 17-20

https://einsteinproject.app.neoncrm.com/np/clients/einsteinproject/eventRegistration.jsp?event=7 0 - High-quality instructional materials in science leverage all students' questions and ideas to drive active sensemaking in order to figure out scientific phenomena or solve engineering design challenges. The Einstein Project is the only Certified OpenSciEd Professional Learning Provider in Wisconsin. Successful and sustainable implementation is possible with in-depth opportunities to experience the instructional model as a learner. Take steps to understand the OpenSciEd instructional model as you dive into the anchoring phenomenon and storyline for the first unit you will teach by participating in the OpenSciEd Curriculum Launch (Units 6.1, 7.1, 8.1, and B.1). June 17-20, 8:00am-3:00pm, Brown County STEM Innovation Center, Green Bay.

WI Institute for Next Generation Science (WINGS) - July 14-18

https://www.einsteinproject.org/wings - Applications are due April 22nd for the third year of this amazing summer experience for science teachers. Participants will learn together about what 3D phenomenon-based science looks like in the classroom, have time to collaboratively work on units/lessons, and enjoy time at the end of the day in the great Northwoods! The experience requires a small refundable deposit to hold spots, but the lodging and meals are free. New educators even receive a small stipend to support travel and implementation of plans. Selection will be completed to ensure a diverse blend of participants from all regions of Wisconsin. This is the rejuvenation experience you're looking for!

• DPI Elementary Science Leadership Workgroup - now through this summer

I am facilitating a workgroup to create resources for elementary science programs - we'll be digging into setting a vision, selecting and piloting instructional materials, scheduling for science, and determining elementary report cards. Resources exist in this area often do not consider the realities of elementary science, while still moving these programs forward. The group has started, but we could use a couple more members to get the work done. We'll be meeting virtually through April and May with an in-person workday in June. There will be an honorarium for involvement in the work. Email me (Kevin) for more information.

Summer DPI State Assessment Work - ACT and Forward Exam.

https://dpi.wi.gov/assessment/act/educator-involvement - get involved in standard setting for the

ACT science test this summer on July 10th and 11th. Lodging will be provided for eligible educators, as well as mileage coverage, and a \$150/day stipend. The same details also apply to an opportunity for educators to review items for the 4th and 8th grade science Forward Exam on July 30-31 -https://dpi.wi.gov/assessment/forward/educator-involvement#Item-review. Applications for both are due May 1st.

Yerkes Observatory Student Field Trips and Teacher Summer Workshop

Looking for an out-of-this world, end-of-the-year field trip for your class? Bring your students to Yerkes Observatory in Williams Bay for a curated educational experience! Details and information, such as costs per student and other logistics, can be found at <a href="https://yerkesobservatory.org/visit/school-visits/">https://yerkesobservatory.org/visit/school-visits/</a>. Plan your school visit today and reach out to Mallory Conlon (mconlon@yerkesobservatory.org) with any questions.

https://yerkesobservatory.org/educator-professional-development-workshops/ - Calling all K-12 educators! Join us at Yerkes observatory this summer for a half-day workshop focused on incorporating NGSS-inspired activities into your curriculum. Participants will tour the observatory, learn how to facilitate and receive materials for a hands-on activity, and attend a lunch-and-learn session that explores the astronomy related standards in NGSS and how to implement those standards in your classroom.

UW-Madison AP Summer Institutes 2024

https://place.education.wisc.edu/k12-programs/ap-summer-institute/ - Registration is now open for the UW-Madison AP Summer Institutes, which will take place virtually in July and August. There will be synchronous and asynchronous learning.

• WIDA Professional Learning Resources - supporting English Learners

https://wida.wisc.edu/grow/elearning - WIDA has great professional learning opportunities in phenomenon-based science and beyond to better support multilingual learners. These virtual, self-paced modules are free. If you don't have a WIDA account, there is information on how to register on the right side of this website: <a href="https://wida.wisc.edu/about/consortium/wi">https://wida.wisc.edu/about/consortium/wi</a>.

### Resources

Wi Science Education Leadership Association - Feb notes

Slides/notes link - We had a great WSELA meeting on February 13th in Oconomowoc (thanks again to Corinne Michor for hosting). We dug into instructional materials selection and adoption at the elementary, middle, and high school level. Anyone can join the WSELA listserv (email me) or attend the meetings. The next one will be around October 8th or 15th - stay tuned for details.

Safety in STEM Classes - article from NSTA

https://www.nsta.org/blog/studies-indicate-safety-must-be-greater-priority-stem-and-cte-instructional-spaces - While it says STEM, the ideas of this blog are applicable to science as well. Dr. Ken Roy examines the most critical safety issues recently reported by STEM educators and discusses how school districts can work to address these concerns in alignment with legal safety standards and better professional practices. It's a short read and helpful resource for teachers,

administrators, and other coordinators facing issues with common safety concerns such as large class sizes, lack of safety training, PPE, engineering controls, etc.

How do you talk about climate change in your classes?

Research suggests that many teachers avoid climate change and other topics that can be perceived as controversial. I encourage you to consider deeper climate change discussions - just talking about it in an honest, evidence-based way makes a big difference. A role play with students and differing views on climate change could be helpful:

https://subjecttoclimate.org/resource/role-play-six-americas-six-views-on-global-warming. And, here's a quick video on techniques of science denial, noting to how to spot these logical fallacies - <a href="https://youtu.be/uNs2YMblqwU">https://youtu.be/uNs2YMblqwU</a>. Finally, here's a "Debunking Handbook" geared to secondary educators to support discussions - <a href="https://subjecttoclimate.org/resource/the-debunking-handbook">https://subjecttoclimate.org/resource/the-debunking-handbook</a>.

Phenomenon - the Challenge of Space Debris!

https://www.cnn.com/2024/02/21/climate/space-debris-solution-climate-scn/index.html - There is a lot of garbage floating around the earth that threatens our communication networks and the International Space Station. It's an interesting phenomenon for class discussion and possible engineering problem-solving projects.

Eclipse Resources - Looking forward to April 8th!

https://dpi.wi.gov/news/dpi-connected/harnessing-excitement-upcoming-2024-solar-eclipse - I wrote an article for DPI's ConnectEd to share ideas and resources for the eclipse. My colleague also wrote an article about eclipses in Anishanabe culture, a nice connection to many Wisconsin students and support for teaching culturally (not just about cultures). Is your school leadership nervous about letting students out to view it? Here's a link to an administrator video: <a href="https://www.youtube.com/watch?v=sz3F4Kg6rSY">https://www.youtube.com/watch?v=sz3F4Kg6rSY</a> and one-pager for school leaders: <a href="https://static.nsta.org/pdfs/SolarEclipses2023">https://static.nsta.org/pdfs/SolarEclipses2023</a> Administrator.pdf. We could be cloudy that day here in WI, so here's a link to a NASA site that will be live-streaming the eclipse: <a href="https://eclipse-explorer.smce.nasa.gov/">https://eclipse-explorer.smce.nasa.gov/</a>

## **Student Opportunities**

Great Lakes Bioblitz - April 22 - May 18

https://sites.google.com/wisc.edu/greatlakes/2024-bioblitz - You may participate as a class, individually, or with another group. You'll need to:

- 1. Visit iNaturalist or download the app onto your phone and create an account.
- 2. Visit and become a member of the 2024 Great Lakes BioBlitz project on iNaturalist.
- 3. Get outside, get out your cameras, and start making and posting observations!

The website includes resources for engaging youth in this learning experience. If you'd like to learn more about this event, you can register and attend a webinar featuring guest scientist Michelle Kenton of the University of Wisconsin. It is happening April 10, at 4:00PM to 4:30PM CDT, on Zoom - register here: https://go.wisc.edu/xjy402.

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"Science is not a body of facts, [it] is a method for deciding whether what we choose to believe has a basis in the laws of nature or not." – Marcia McNutt