



Hello Fellow Educators,

Woo-hoo, it's back-to-school time! I hope you enjoyed some relaxing times this summer. One thing I enjoyed over the summer was visiting Dr. Zach Pratt's student summer research program at Janesville Parker High School. The students eloquently described their projects to find alternative methods to treat bacterial infections!

As you look to the year ahead, please let me know if I can help with resources, facilitated virtual discussions, or in-person support on topics such as new instructional materials, standards-based grading, revising assessments, equity-focused science, etc. Send me an email. There is no charge for my support! I also hope to visit several schools this year to see the great work you're doing - let me know if you'd let me stop by. :)

Below are a few resources and opportunities 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

- [STEM Forward's sySTEMnow Conference](#) - Nov 1
- [Wisconsin Science Education Leadership Association](#) - Oct 17, Wis Rapids
- [Stay tuned for information about our virtual book studies!](#)

Resources

- [Presidential Awards \(PAEMST\)](#) - now accepting nominations
- [Kohl Fellowships and Shell Awards](#) - applications/nominations open
- [JASON Open-Source STEM Resources](#)
- [Wisconsin Science Festival and Wisconsin Science Week](#) - Oct 16-22
- [Why teach science? And, why should we?](#) - new book by John Rudolph
- [Phenomenon](#) - Are coffee plants going to go extinct?

Student Opportunities

- [StellarXplorers National Space Design Competition](#) - middle/high
 - [Chief Science Officer Student Program](#)
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- [Inquiry? Yes!](#) Final year of the water-themed state inquiry project.
 - [Speaking of Inquiry](#), students have many opportunities for sharing science!
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Learning Opportunities

- STEM Forward's sySTEMnow Conference - Nov 1

<https://www.stemforward.org/systemnow-conference> - This annual conference in Milwaukee is a great way to connect with new STEM ideas and learn from districts doing unique work in STEM education. If you're not familiar with STEM Forward, it is a regional STEM hub/non-profit largely serving SE Wisconsin, but with relevance for work across the state. I'll be attending this meeting!

- Wisconsin Science Education Leadership Association - Oct 17

We'll be meeting at Lincoln HS in Wisconsin Rapids from 9 to 3, with networking and a continental breakfast starting at 8:30. Attendance is free if it's your first time, or \$20 for others. Anyone is invited to attend this discussion on support for school and district science programs. Please, email me if planning to attend, so we can start getting numbers for food. And, include in that email your ideas for agenda topics.

- Stay tuned for information about our virtual book studies!

We'll have three book studies this coming year and are excited about them starting soon. We've tentatively selected a couple of the books. First, we'll have a science leadership (WSELA) book study focusing on [Curriculum-Based Professional Learning](#). Second, there will be a general book study looking at Dan Egan's new book, [The Devil's Element](#). Finally, there will be an elementary specific book study. We expect them all to start up early this fall.

Resources

- Presidential Awards (PAEMST) - now accepting nominations

<https://paemst.nsf.gov/> - Do you know a great K-6 teacher of science, math, and/or STEM? Or, are you that teacher? You can now nominate yourself or others for this prestigious award from the White House. Past applicants have appreciated the opportunity to reflect on their teaching and receive feedback from a panel of experts. Awardees receive \$10k and a trip to DC.

- Kohl Fellowships and Shell Awards - applications/nominations open

https://www.kohleducation.org/teacherfellowship/public/nominate_a_teacher.php - In addition to the Presidential Awards (see above), nominations and applications are also open for other educator award programs. Kohl Fellowships are the most popular in Wisconsin (thanks, Senator Kohl!), though [NSTA's Shell Science Educator Award Program](#) is also worth

checking out. You are an amazing teacher and deserve to be awarded. And, you probably know others who do too!

- JASON Open-Source STEM Resources

<https://jason.org/open-source-resources/> - Have you been looking for STEM-Focused, PBL resources for your classroom? Please check out the exciting resources offered by JASON Learning. Working in collaboration with North Carolina State University, JASON Learning is proud to offer Design and Pitch Challenges in STEM and Design and Pitch Challenges in STEM, Round 2. To gain access to these open-source resources, please complete the request form linked on the JASON Learning Public website. Once your request is approved, you will have full access to the teacher and student resources for all the challenges. Don't hesitate to get in touch with pd@jason.org with questions.

- Wisconsin Science Festival and Wisconsin Science Week - Oct 16-22

<https://www.wisconsinfestival.org/teachers/> - As proclaimed by Governor Tony Evers and State Superintendent Dr. Jill Underly, the third week of October (16-22) will again be State Science Week! I encourage you to figure out how you might engage in some community connected science this week, whether that's a Science/STEM night, a bioblitz, a guest speaker, a virtual or in-person field trip, etc. The [Wisconsin Science Festival](https://www.wisconsinfestival.org/) site has several ideas. You can still [register](#) your event to be shared on their website. . Encourage activities that week – share some ideas (that are relatively easy). Evening activities – students run them, with families doing a science thing. Note some options – bioblitz, virtual field trips, science/STEM night, etc.

- *Why teach science? And, why should we?* - new book by John Rudolph

<https://www.nbc15.com/2023/04/24/uw-madison-professor-reimagines-science-class-real-world/> - UW-Madison Professor John Rudolph shares some thoughts from his new book in this local news interview. He notes that educators often teach science, especially at the high school level, from a college-like perspective that emphasizes the learning of content. He emphasizes that instruction focusing on scientific literacy is more critical, so everyday people can make sense of the situations and media encountered in their day-to-day lives.

- Phenomenon - Are coffee plants going to go extinct?

<https://www.nsta.org/lesson-plan/why-might-there-be-future-without-coffee-and-can-we-do-anything-about-it> - In this lesson resource from NSTA, students investigate the genetics of coffee plants and start to figure out that challenges with continuing to farm it. A useful (scary?) phenomenon for consideration!

Student Opportunities

- StellarXplorers National Space Design Competition - middle/high

www.stellarxplorers.org/competition - The StellarXplorers National Space Design Competition is a hands-on competition for middle and high school students. Through a series of online competition rounds, teams of students are challenged to solve real-world space missions focused on orbit planning, satellite design, and launch vehicle operations. This program engages students' critical thinking, problem solving, teamwork, and leadership skills, while

also giving them direct access to industry-grade training and software. All training is provided, and volunteer mentors are available to provide real-world expertise to teams. There is a webinar on Aug 31 to learn more about the program, or you can email their staff at info@stellarxplorers.org.

- Chief Science Officer (CS) Student Program

<https://chiefscienceofficers.org/the-program/> - The CSO program provides an opportunity for students in grades 6-12 to serve as STEM ambassadors and a liaison for STEM opportunities in their communities. As part of the program they develop and share community-based STEM programs and connect with other students across the country who are also doing meaningful work. All students can be involved in a school or district, through a select few can attend national virtual and in-person convenings. STEM experts serve as mentors to the students. There is a cost to get your school/district involved.

- Inquiry? Yes! Final year of the water-themed state inquiry project.

<https://dpi.wi.gov/science/water> - Students in my classes remembered their inquiry projects, not how to figure out the number of valence electrons in a particular atom. How will you be or could you be engaging students in longer-term inquiry projects this year? That could be an anchor project that continues in the background. This year we continue with our state inquiry theme of water, with resources and opportunities to share projects noted on [this website](#).

- Speaking of Inquiry, students have many opportunities for sharing science!

<https://dpi.wi.gov/science/science-fairs/opportunities> - It's always a possibility to get students engaged in meaningful science projects (as noted above), which hopefully look different than a cookbook procedure on a tri-fold. [Toshiba/NSTA Exploravision](#) is another route to spice things up. This could be a unique school-community connection to spur students' science careers.

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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