



Hello Wisconsin Educators Who Think Science is Wonderful,

I hope you're doing well and helping students connect with interesting, community-connected projects. Let me know if I can help your efforts in any way!

**Please, join me in congratulating the 2023 Wisconsin [PAEMST](#) Finalists!**

- Miranda Dahlke, Washington Island School District
- Dr. Randy Ketola, Glenwood City School District
- Cindy Stetzer, Gale-Etrick-Trempealeau High School

Also, thank you to everyone who completed the WSST Culture and Climate Survey. Initial review of results from WSST members can be [found here](#). A comparative review of members and non-members along with subgroups can be [found here](#). Let me know if you have any questions. WSST will be using the data to inform their strategic planning this summer, and I'll be using it to inform my work at DPI. \*It was also great to see many of you at the conference last week!

Below are lots of professional learning opportunities, some student science contests, and a few resources. 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](http://dpi.wi.gov/science/social-media).

Cheers,  
Kevin

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## Learning Opportunities

- [Wisconsin Science Education Leadership Association \(WSELA\)](#) - Apr 11
  - [AP Summer Institute](#) - through UW-Madison but all *online*
  - [Summer Research Experience for Teachers](#) at UW-Madison MRSEC
  - [ASM Materials Science Camp](#) - MS/HS - in Milwaukee July 10-14
  - [WSST Summer Science Institute \(WINGS\)](#) - July 16-20
  - [DI3 Collaborative for School Districts](#) - Partner w/ STEM companies
  - [BTC Institute](#) - STEM Cells, Equipment, and Summer Learning
  - [Climate Change Workshop for Teachers](#) - Apr 12 at 3:45pm
  - [Spring/Summer Solar Energy Courses](#) from Madison College
  - [UW-Madison MS/HS Physics Programs](#) including Quantum Science
  - [NGSS Webinars from the Knowles Foundation](#) (free)
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- [NGSX Virtual Summer Course](#) - Becoming an NGSS Teacher
- [ChemLeap](#) - Summer PD at UW-Madison - June 26-30

## Resources

- [Article - Cultivating Genius](#): Adapting science lessons for equity
- [Article - Do you post learning objectives?](#) Do you feel like it's effective?
- [Grant Opportunities](#) from the National Resources Foundation

## Student Opportunities

- [Madison Area Middle School Science Fair \(MASTERS\)](#) - register by Mar 31
  - [2023 Ag Innovation Challenge](#) for 9-12 Graders
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## Details

### Learning Opportunities

- Wisconsin Science Education Leadership Association (WSELA) - Apr 11

<https://docs.google.com/document/d/1MatRI9K-4EPQ7B4i5oIVIF0fW0dDajVB6yefF80gdKI/edit?usp=sharing> - Whether you're an "official" science leader or would simply like to network with other science educators from around the state, please join us for the next Wi Science Education Leadership Association (WSELA) meeting on April 11th at Ripon High School in their community room. We'll start networking at 8:30 with the meeting starting at 9 and going to 3ish. As noted on the linked agenda, topics will include designing and revising 3D science assessments, science fairs, dual credit, standards-based grading, and ChatGPT (along with other AI tools). No cost for new attendees and \$20 for others - [RSVP here](#).

- AP Summer Institute - through UW-Madison but all *online*

<https://place.education.wisc.edu/k12-programs/ap-summer-institute/> - four-day-long learning opportunities for new or continuing AP teachers in bio, chem, physics, environmental science, CS, calc, etc. Cost is \$625 before Mar 31. It's all online this year, with asynchronous and synchronous components.

- Summer Research Experience for Teachers at UW-Madison

<https://education.mrsec.wisc.edu/ret-experience/> - UW-Madison Materials Research Science and Engineering Center (MRSEC) is hosting a paid professional development and research opportunity for secondary science/math/STEM teachers called the Research Experience for Teachers (RET). During this 7-week program, participants will have the opportunity to engage in hands-on, cutting-edge research in labs on the UW-Madison campus. In addition to learning about the lab's research topic and the process of investigation, the teachers will collaborate with their research partners to create a hands-on, interactive classroom activity inspired by their research experience. The runs from June 12th through July 28th. Teachers receive a \$6000 stipend for participating in the program and a \$500 supplies budget to develop their activity and implement it with students in their classroom. The program does not provide housing or transportation. Deadline to submit an application has been extended to March 31st, 2023.

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- ASM Materials Science Camp - MS/HS - in Milwaukee July 10-14

<https://www.eventbrite.com/e/asm-materials-camp-teachers-wisconsin-lutheran-high-school-july-10-14-tickets-541672395717> - The "ASM Materials Camp" is free STEM professional learning for teachers, taking place in Milwaukee at the Wisconsin Lutheran HS. [Here's a video](#) to learn more. In this week-long workshop, educators will be introduced to methods to make math and science principles more relevant to middle and high school students. You'll work hands-on with metals, ceramics, polymers, and composites, and develop a greater appreciation for the importance of these materials. You can earn 4 continuing education units or 2 graduate credits. There are also Materials Camps across the country and online.

- WSST Summer Science Institute (WINGS) - July 16-20

Just ask the 20+ attendees from 2022, this summer institute was a wonderful and rejuvenating experience ([video evidence](#)). You will stay overnight at the beautiful Lowenwood Estate (former Conserve School) near Land O' Lakes. You'll have a cozy, single dorm room (sharing an adjoining bathroom with one other person, which could be a colleague of yours!). There is a great blend of learning, socializing, and enjoying the amazing outdoors. There is NO cost to attend - meals, accommodations, and mileage are all paid. For more information, reach out to WSST Professional Development Chair, Chad Janowski at [chad@einsteinproject.org](mailto:chad@einsteinproject.org). Fill out the application to express interest and get on the email list (not a commitment) - <https://forms.gle/3mg99998j4QE4Bex8>.

- DI3 Collaborative for School Districts - Partner w/ STEM companies

<https://www.tiesteach.org/the-di3-collaborativepowered-by-ties/> - TIES is beginning a free, national networking opportunity for districts to build capacity in STEM education. You'll partners with corporate programs such as IBM SkillsBuild, LabxChange and more. Large multi-national companies are currently seeking school districts and their teachers for exciting partnerships that are launching in Spring 2023. We are offering school districts the opportunity to pilot programs launched by these companies.

- BTC Institute - STEM Cells, Equipment, and Summer Learning

The 17th Annual STEM Cell Symposium will be on April 17th and teachers can attend for free - <https://www.btc.org/events-symposia/wisconsin-stem-cell-symposium/>. Teachers can borrow all sorts of biotech equipment - <https://www.btc.org/k-12-programs/equipment-loan-program/>. Their free summer courses in Fitchburg (Madison) focus on an intro to biotechnology (June 26-30) and a part two, deeper biotechnology course (July 10-14), with stipends of \$125/day offered - <https://www.btc.org/k-12-programs/programs-for-teachers/>.

- Climate Change Workshop for Teachers - Apr 12 at 3:45pm

<https://dpi.wi.gov/environmental-ed/events/climate-science-concepts-fit-your-classroom> - this free, two-hour workshop from UW-Madison scientists Bassam Shakashiri and Jerry Bell will support teachers in understanding climate change and teaching it to their students. It will build from a climate learning workbook that they authored - <http://scifun.org/ClimateWorkbook/home.html>.

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- Spring/Summer Solar Energy Courses from Madison College

<https://createenergy.org/renewable-energy-workshops/> - Would you like to learn how solar PV works & develop lesson plans for your classroom? The CREATE Energy Center is offering three exciting Institutes for STEM Educators:

1. STEM Educator Virtual Solar Institute beginning on April 15
2. STEM Educator Solar Institute, July 11-13 in Madison
3. STEM Educator Advanced Solar Plus Storage, August 1-2 in Madison

In each institute you will receive complete solar PV lesson packages, an opportunity to win up to \$1000 through Teaching Innovation competitions, and a lab equipment award application to request student sets of solar PV equipment. There are *no registration fees* for these courses. CREATE provides hotel lodging, breakfast, and lunch, and a stipend upon completion of the in-person institutes. For more details and applications see the [CREATE Energy Center events page](#) and our [YouTube video](#). For questions contact Liz Reinke at Madison College, [Ereinke@madisoncollege.edu](mailto:Ereinke@madisoncollege.edu).

- UW-Madison Physics Outreach Programs including Quantum Science

-- <https://hqan.illinois.edu/education-and-workforce/TeachQuantum> - Applications are open for TeachQuantum, an NSF-funded 6-week summer program (June 26-Aug 4) that immerses middle and high school STEM teachers in real quantum science and supports quantum curriculum development. [Applications](#) are due on April 21st. Educators receive a \$4500 stipend and \$500 to support a lesson(s).

-- <https://q12education.org/quantime> - QuanTime is an international event dedicated to celebrating quantum science and making it accessible to all. Register to receive free activity kits.

-- <https://quantum2go.org> - Quantum information science (QIS) is a booming field - you can join the Quantum To-Go program, where you'll be matched with quantum professionals that will introduce the importance of QIS and share their experiences and career paths. All visits will be virtual and take place during the month of April 2023. You and your matched scientist will work out specific details for your visit.

-- The Physics of Climate Change initiative is offering classroom visits for middle and high school STEM classrooms! Adding climate science concepts into your curriculum this school year is made easy with an engaging, NGSS-aligned activity, easy-to-use teacher materials, and in-class support from the project team. If you are interested in learning more and possibly having the team join your class, please [fill out this form](#).

Please reach out to Mallory Conlon ([mallory.conlon@wisc.edu](mailto:mallory.conlon@wisc.edu)) with any questions about the UW-Madison physics programs.

- NGSS Webinars from the Knowles Foundation (free)
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<https://knowlesteachers.org/knowles-academy/upcoming-courses> -

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Knowles has a wide range of free, evening professional learning options on topics such as engineering, sensemaking, assessment, and mathematical thinking. They generally start at 6:30 pm CT.

- NGSX Virtual Summer Course - Becoming an NGSS Teacher

[https://docs.google.com/forms/d/e/1FAIpQLSd79DP3enHYH0nr9j3e\\_Km6o8wpFPYiUyWI7k7Qy4EhYPPqgw/viewform](https://docs.google.com/forms/d/e/1FAIpQLSd79DP3enHYH0nr9j3e_Km6o8wpFPYiUyWI7k7Qy4EhYPPqgw/viewform) - This course runs from June 26-28 and August 21-23, 8 am to 2pm CT each day. It prepares teachers to engage their students in the core science practices of modeling, argument, and explanation about puzzling phenomena in the world around them. Through collaboration in doing science and exploring rich video cases, participants gain a variety of tools and resources to take back to their classrooms – to learn with and from their students. Cost is \$400.

- ChemLeap - Summer PD at UW-Madison - June 26-30

<https://chemleap.wceruw.org/home> - Are you a science teacher looking for ways to support students making sense of phenomena? Our community of science teachers and education researchers is offering a free professional development this summer during the week of June 26-30. Travel, housing, and meals are provided through an NSF grant (DRL-2003680). A detailed schedule of events and answers to some FAQ can be found here: <https://tinyurl.com/ChemLEAP-PD>. If you are interested in joining us for the professional development, let us know by filling out this survey: <https://tinyurl.com/ChemLEAP-PD-2023>. We will reach out to interested folks by the end of April. Additionally, the entire suite of ChemLEAP materials is available for free on our website.

## Resources

- Cultivating Genius - adapting science lessons to an equity framework

<https://wisdpiscience.blogspot.com/2023/03/cultivating-genius-adapting-lessons-to.html> - I love thinking through lessons to consider how they support students' unique genius, which is framed by Dr. Ghodly Muhammad as their intellect, skills, identity, criticality, and joy. In this article I give an example of how I'd tweak an OpenSciEd unit to better connect to these ideas.

- Do you post learning objectives? Do you feel like it's effective?

<https://gadflyonthewallblog.com/2022/11/25/posting-learning-objectives-in-the-classroom-is-still-a-dumb-idea/> - What do you think? I'd love to hear your reactions to this article by email or at an upcoming meeting, like WSELA.

- Grant Opportunities from the National Resources Foundation

NRF is proud to support the important work of our conservation and environmental education partners across Wisconsin. We are currently seeking proposals for these upcoming grant cycles: [Go Outside Fund](#) - due March 31st and [Teachers' Outdoor Environmental Education Fund](#) - due May 1st.

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## Student Opportunities

- Madison Area Middle School Science Fair (MASTERS) - register by Mar 31

[Flyer w/ details](#) - Middle school students from Madison and beyond (really anywhere in WI) can present STEM-related projects of any type (STEM, computers, science, math) at this fair to experience judging and awards for their work. It will be held on April 22, from 1 to 4pm, at UW-Madison at the Steenbock Library--BioCommons (Room 110A), 550 Babcock Dr. When 5th grade students are also in the district middle school, they are welcome to join as well. [Registration link](#).

- 2023 Ag Innovation Challenge for 9-12 Graders  
[www.fftf.us/aginnovationchallenge](http://www.fftf.us/aginnovationchallenge) - The Food + Farm Exploration Center in Plover, WI is hosting our first annual Ag Innovation Challenge. It is now open for registration! T

his Shark Tank-styled competition invites Wisconsin high school students in grades 9-12 to submit an innovative product, service, or idea that will address a need in the Wisconsin agricultural industry. Contestants are permitted to compete on an individual or team basis.

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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