



Hello Science Education Leaders,

I hope you're enjoying the shift to fall! Here are the latest science education 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](http://dpi.wi.gov/science/social-media).

Cheers,  
Kevin

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### Learning Opportunities

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- [KidWind Educator Workshop](#) - Sat, Oct 26
- [Satellites, Citizen Science, Stewardship and You](#) - Nov 7-8 workshop
- [Rural Education Teacher Speak Out!](#) - Nov 15-16
- [2020 WSST Annual Conference](#) - Call for proposals
- [CBM Summer PD Course, "Modeling the Molecular World"](#) - July 27-31
- [Groundwater Modeling Workshops](#) - Tomahawk Jan 29, Mount Horeb Feb 19
- [WI Association for Environmental Ed Annual Conference](#) – Nov 14-16
- [WSST Door County Field Trip/Experience](#) - Oct 19th
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### Resources

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### Student Opportunities

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  - [Elkhorn Maker Faire \(and Madison Maker Faire\)](#) - Feb 15-16 (and Nov 24)
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## Details

### Learning Opportunities

- UW-Madison HS Science College Readiness Symposium - Dec 3

<https://place.education.wisc.edu/k12-programs/college-readiness-symposia-series/college-readiness-in-science-symposium/> - This symposium features university and college faculty discussing what high school students should be doing to prepare for post-secondary education. Some topics (as of now) include: How does instruction and assessment look in college-level science courses? Why should we engage HS students in project-based science? How do course pathways and dual-enrollment fit in with preparedness? Is lecture still relevant? Standards-based grading and admissions. And, science communication and bias in the media.

- KidWind Educator Workshop - Sat, Oct 26

<https://energy.wisc.edu/events/kidwind-challenge-educator-workshop-0> – This free workshop at UW-Madison from 9am to 1pm will provide you with information to serve as a coach in the 2020 KidWind Challenge. The group will dive into hands-on activities you can bring back to your classroom even if students don't engage in the Challenge in March. Materials are geared for middle and high school students. The KidWind Challenge (competition) is on Saturday, March 7 from 9 to 2. Students design and present the effectiveness of their wind turbines. Details on this student event: <https://energy.wisc.edu/events/2020-wisconsin-kidwind-challenge>

- Satellites, Citizen Science, Stewardship and You - Nov 7-8 workshop

<https://aldoleopoldnaturecenter.doubleknot.com/event/from-local-to-global-satellites-citizen-science-stewardship-and-you/2453922> - this two-day workshop from NOAA and the Aldo Leopold Nature Center provides training and resources for integrating climate science, data resources, and STEM into your instruction. The first day is at the Aldo Leopold Nature Center near Madison, and day two is at CIMSS on the UW-madison campus. Registration is \$50, but reimbursement of up to \$200 per participant is available to offset travel, hotel, substitute teacher fees or other workshop expenses. For more information contact: [education@aldoleopoldnaturecenter.org](mailto:education@aldoleopoldnaturecenter.org)

- Rural Education Teacher Speak Out! - Nov 15-16

<https://rericon.wisc.edu/teacher-speakout-2019/> - On November 15-16, 2019, the Rural Education Research and Implementation Center (RERIC) at the University of Wisconsin–Madison will present the third annual Teacher Speakout!—an event that recognizes the professional experiences of rural educators from around the state. Our goal is to bring the voices of rural teachers into collaborative settings with researchers, faculty, legislators, and rural school advocates. They are inviting a core group of rural STEM teachers to participate in formal panel discussions and interactive small group sessions, focusing on bridging the gap between university scientists, education faculty, and rural STEM teachers. There are 25 spaces available for rural educators. Register by Oct 14th. A \$200 travel stipend is provided. Registration is here: <https://wceruw.wufoo.com/forms/guest-teacher-registration-for-teacher-speakout/>

- 2020 WSST Annual Conference - Call for proposals

<https://forms.gle/Gpmzv9Rc4hPr73438> - Please, consider presenting a session or a workshop at the annual WSST conference. It's in the Wisconsin Dells this year from March 19-21. Formal,

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informal, higher ed, etc. - all are welcome to present. Deadline for workshop proposals is Nov 30, 2019. Deadline for all other sessions is Dec 14, 2019.

- CBM Summer PD Course, “*Modeling the Molecular World*” - July 27-31

<http://cbm.msoe.edu/teacherWorkshops/mmw.php> - Applications are now open for the MSOE Center for BioMolecular Modeling’s week-long summer PD course, “*Modeling the Molecular World*,” on July 27-31, 2020. In this course, teachers explore the invisible molecular world using a variety of physical models and supporting materials. The workshop emphasizes the role of modeling as both an authentic practice of science and as an active learning strategy for students. It also prepares teachers to lead a student protein modeling team, like SMART Teams, MAPS Teams, or Science Olympiad.

- Groundwater Modeling Workshops - Tomahawk Jan 29, Mount Horeb Feb 19

<https://www.uwsp.edu/cnr-ap/watershed/Pages/GroundwaterModelWorkshop.aspx> - DNR is holding workshops for educators on groundwater, where you can also receive a free groundwater sand tank model and workshop. The materials and resources are best suited to grades 6-12. Workshops will be taught by staff from the Central Wisconsin Groundwater Center and the Wisconsin Geological and Natural History Survey. Money is available to reimburse schools for substitute teachers. To be eligible to receive a model, **two** teachers from a school or nature center must complete the application form describing how they will use the model. The deadline for applications is Nov 1, 2019.

- WI Association for Environmental Ed Annual Conference – Nov 14-16

<http://www.waee.org/2019-annual-conference> - Join formal and informal educators to discuss wide-ranging environmental education topics in Madison at this annual conference. With the [synergy of new science, social studies and environmental literacy and sustainability standards](#), this conference will provide many ideas for educators to integrate curriculum across K-12.

- WSST Door County Field Trip/Experience - Oct 19th

This "Field Experience in Wisconsin Earth Science - Door County" will take place on Saturday, Oct 19, and the bus will leave at 10AM from the Laboratory Science Parking lot at UW-Green Bay. They will return at ~3:30pm. It is open to **any** teacher who would like to participate. There is no cost. The group will have UWGB Geoscience professor Dr. John Luczaj share his extensive research into the Niagara Escarpment and local groundwater issues. Bring a lunch (no food there or provided). All participants must pre-register with Dennis Rohr via email at [drohr@seymour.k12.wi.us](mailto:drohr@seymour.k12.wi.us) by October 15th. There is limited space so please register early. In your email, please include your school name, address, grade levels or classes you teach, and a cell phone contact in case of any last minute changes.

- Canadian Field-Based Geology Course this Summer through Madison College

[https://studyabroad.madisoncollege.edu/index.cfm?FuseAction=Programs.ViewProgram&Program\\_ID=57817](https://studyabroad.madisoncollege.edu/index.cfm?FuseAction=Programs.ViewProgram&Program_ID=57817) - This program takes participants through amazing geological sites in Alberta and British Columbia, Canada. It will discuss the formation of the Canadian Rocky Mountains, look at lots of rocks and fossils, discuss and find dinosaur fossils, talk about cave formation, glaciers and glacial landforms, and visit the Burgess Shale. While the past attendees have been college students from MATC and UW Madison, this experience would be a phenomenal professional

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development opportunity for earth science educators looking to bring new experiences and teaching lessons into their science classroom.

## Resources

- Free Seedlings for 4th Grade Teachers

<https://dnr.wi.gov/topic/TreePlanting/arborForm.asp> - Did you know you get free seedlings for each of your 4th grade students? You can place your orders with DNR through Mar 15.

- New Virtual Book Study Website and Details on 2020 Book Study

<https://dpi.wi.gov/science/standards/learning/book-study> - Each year Kevin (DPI science) partners with WSST to support a virtual book study. We partner to support general professional learning for all teachers and also mentor applicants for the [Presidential Award for Excellence in Mathematics and Science](#) (this year taking applicants or nominees from K-6). The books this year will be [What's Your Evidence?](#), which focuses on writing in science for grades K-5, and [Supporting Grades 5-8 Students in Constructing Explanations in Science](#), which also focuses on writing in science. These books support the claim-evidence-reasoning approach. The first 25 WSST members who sign up or first 15 PAEMST applicants receive free books. You can [sign up for the book study here](#).

- What Are the Core Perspectives Students Should Gain in School?

<https://wisdpiscience.blogspot.com/2019/09/categorizing-multiple-literacies.html> - For a long time I have wrestled with the idea that we have 25 sets of standards in Wisconsin! That's a bit much for the typical elementary teacher or administrator to make sense of. In this new blog article, I argue that there are five core perspectives (or literacies or lenses) that we should support students in gaining. Let me know what you think by adding a comment!

- Save the Rainforest, Free Presentation – by Bruce Calhoun

[www.saverfn.org](http://www.saverfn.org) - Bruce Calhoun of the Save the Rainforest Foundation is available to conduct free rainforest presentations at your school. There are three main goals of these presentations: challenge students to think scientifically about the phenomena of climate change; connect to civic-mindedness and the youth environmental movement; and put students on a pathway to college and a meaningful career related to these areas. A video of a sample presentation can be found here: <https://www.youtube.com/watch?v=2OW52OzMgPo>. Contact Bruce for further details and booking: [saverfn@gmail.com](mailto:saverfn@gmail.com).

## Student Opportunities

- State Water Inquiry Project - ongoing

<https://dpi.wi.gov/inquiry> - This year DPI, the Wisconsin Science Festival, and dozens of partners from around the state are encouraging educators to engage students in a water-related inquiry project! This statewide inquiry project will continue through the next few years, with an aim of being able to share ideas and momentum for science learning across the state. This website has a core project idea, as well as other sample ideas at each grade level linked to the standards:

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<https://dpi.wi.gov/science/water> (scroll down). We'll be sharing pics, data and ideas at <https://siftr.org/WisconsinWater/>. There was even [a recent editorial in Cap Times](#) about this work.

- Wisconsin Science Festival - Oct 17-20

<https://wisconsin-science-fest.org/> - There are Wisconsin Science Festival events going on around the state this week! I hope you find a way to get your students involved. The State Inquiry Project on water (noted above) is one way to do so if you can't travel or aren't hosting an event at your site!

- World Series of Innovation - new student competition

<https://innovation.nfte.com/> - This competition aims to get innovators of ages 13-24 to submit potential solutions to one of nine UN Sustainable Development Goals — from eradicating hunger and poverty to achieving peace, justice, and equality. Students create a core idea and business plan that would address this issue (wide range from STEM and the environment to social studies). Entries are due Dec 16.

- Elkhorn Maker Faire (and Madison Maker Faire) - Feb 15-16 (and Nov 24)

<https://elkhorn.makerfaire.com/> - Elkhorn Maker Faire is accepting applications for student and community makers. Share your ideas, get new ideas for projects, and connect to creation (rather than only consumption). If you order your tickets online early, they are free. It's \$5 at the door. Information about the Madison Maker Faire Maker can be found here - <https://madison.makerfaire.com/> - It is on Nov 24th, and they're still accepting applications for Makers too.

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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