



Hello Science Education Leaders,

The Wisconsin Department of Public Instruction is seeking public input to start the review process for academic standards in science. Science allows students to experience the richness and excitement of the natural world. It teaches students to understand complex questions that require scientific thinking, reasoning, and the ability to make informed decisions. The current standards are the [Wisconsin Model Academic Standards in Science](#) adopted in 1998. Most Wisconsin school districts have adopted or are using the [Next Generation Science Standards](#), which were finalized in April 2013, to provide updated and relevant teaching and learning goals in science classrooms.

Please, share your comments about the standards or standards review process online through the [science standards public survey](#) or through e-mail to DPIScience.Standards@dpi.wi.gov.

Below are the latest science/STEM 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.

Cheers,
Kevin

Learning Opportunities

- [Wisconsin Society for Science Teachers \(WSST\) Annual Conference](#) - Mar 16-18th
- [Innovative Schools Network Conference on Education Innovation](#) - April 19-21st
- [Volunteer for Academic Decathlon International Competition in Madison](#) - Apr 20-21st
- [Computer Science Summit](#) - May 3rd
- [ONPAR Assessments](#) - piloting opportunities for new NGSS assessment materials
- [BTC Institute](#) - summer biotech classes for teachers and students
- [Great Lakes Bioenergy Research Institute](#) - summer learning opportunities
- [CESA NGSS Workshops this Winter and Spring](#)

Resources

- [Statewide Science Networking](#) - Google + Community
 - [Cyber Innovation Center](#) - STEM Instructional Materials on Cyber Security
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- [Darwin Day](#) - free and discounted evolution materials from NAS - expires Feb 19th
- [Science Fair Mentoring Grants](#) - due Feb 26th
- [Biology Phenomena and Stories](#) from the CA Academy of Sciences

Student Opportunities

- [Capital State Science and Engineering Fair](#) (Madison) - Feb 18th - and Badger State Science and Engineering Fair - Mar 11th
- [State Crystal Growing Contest](#) - MS/HS - starts Mar 1st
- [Kid Wind Challenge in Madison](#) - March 11th
- [EgGS \(Engaging Girls in STEM\) Career Connection Program](#) - Apr 1 or May 13
- [UW-Madison Engineering Expo](#) - Apr 7th - 8th
- [Science Olympiad State Tournament](#) - UW Milwaukee - Apr 7th - 8th

Details

Learning Opportunities

- Wisconsin Society for Science Teachers (WSST) Annual Conference - Mar 16-18th

<http://www.wsst.org/conferences> - Join hundreds of your fellow science educators at the annual WSST conference this year in Oconomowoc. Learn through a wide-range of K-12 sessions and workshops, attend science field trips, and talk with exhibitors about current science materials. I hope to see you there!

- Innovative Schools Network Conference on Education Innovation - April 19-21st

<https://2017isn.sched.org/> - This national conference shares stories from schools and educators from around the Midwest doing innovative work for their students. There are opportunities to glean from experts on personalized learning and charter school programs.

- Volunteer for Academic Decathlon International Competition in Madison - Apr 20-21st

<https://goo.gl/Qwead7> - Several opportunities are available for supporting this international event that will be taking place in Madison this year at the Monona Terrace. See link for details - contact Molly Ritchie if interested - mritchie@wiad.org.

- Computer Science Summit - May 3rd

<http://www.wismath.org/event-2462564> - This second annual Wisconsin Computer Science Summit takes place on the Wednesday beginning the annual Wisconsin Mathematics Council conference in Green Lake. Only \$25. The focus will be on improving and expanding computer science opportunities for K-12 students in Wisconsin.

- ONPAR Assessments - piloting opportunities for new NGSS assessment materials

<http://iassessment.wceruw.org/ONPAR-Piloting.pdf> - This UW-Madison project aims to

create innovative assessment materials that align to the NGSS, are online, and are more accessible to EL students. You can also learn about it through this video: <https://www.youtube.com/watch?v=IK1ntxCUOPU&t=3s>. Opportunities are available to pilot these materials in your classroom.

- BTC Institute - summer biotech classes for teachers and students

<https://www.btc.org/k12/> - Interested in biotechnology? The BTC Institute has summer programs for teachers and camps for students, as well as field trip opportunities during the school year. Their educators will even bring the field trip to your school! Teacher institutes are free and offer stipends of up to \$500. These are well done, cutting-edge learning opportunities just south of Madison (in Fitchburg).

- Great Lakes Bioenergy Research Institute Summer Learning Opportunities

<https://www.glbrc.org/education/educational-programs> - Opportunities include: a Research Experience for Teachers where you can work in a lab for 7 weeks and earn \$7000 (application due Mar 18th); a Bioenergy Institute for Educators, June 26-30, to learn about the latest developments in bioenergy research and high-quality, NGSS-aligned materials to use with students - includes \$400 stipend w/ a credit option (application due May 1); and, the Energy Institute for Educators, July 19-21, where you engage in the breadth of research and education resources at the UW-Madison Wisconsin Energy Institute related to the theme of Energy, Sustainability and Climate Change, including lab tours, discussions, and hands-on experiences - includes \$300 stipend w/ credit option (application due May 15th).

- CESA NGSS Workshops this Winter and Spring

I'll be conducting NGSS workshops at a few CESAs through the spring:

CESA 2 on Feb 28, focusing on assessment -

<http://login.myquickreg.com/register/event/event.cfm?eventid=16750>

CESA 3 - ongoing science networking around NGSS implementation

<http://login.myquickreg.com/register/event/event.cfm?eventid=15139>

CESA 9 on April 20, advanced work with instruction and assessment -

<http://login.myquickreg.com/register/event/event.cfm?eventid=17585>

CESA 10 on March 6 - lesson development, and Apr 4 - assessment development

<http://login.myquickreg.com/register/event/event.cfm?eventid=17550>

<http://login.myquickreg.com/register/event/event.cfm?eventid=17551>

Resources

- Statewide Science Networking - Google + Community

<https://plus.google.com/communities/110043264226060769181> (link to sign-up) - I am working to grow a robust online network to discuss current issues in science education. This Google+ community offers a venue to ask questions, share resources, and collaborate with others. To get just the information you want, you can filter by specific topics of interest such as NGSS, assessment, science fairs, elementary/middle/high school, engineering, and learning opportunities. It would be great to have a robust vehicle for online discussion and sharing for science educators! You can even turn on or off email notifications to only connect to information you want.

- Cyber Innovation Center STEM Instructional Materials on Cyber Security

<http://nicerc.org/> - This group, funded by the federal government, has a wide range of computer science, physics and mathematics materials linked to cyber security concepts. Their goal is to help prepare more students for jobs in cyber security. All of the resources are free.

- Darwin Day - free and discounted evolution materials from NAS - expires Feb 19th

<https://goo.gl/kr8IEQ> - The National Academy of Sciences has a wide range of books and research reports on evolution and the nature of science, including some on teaching these concepts. While many are free, others are discounted by 60% through Feb 19th.

- Science Fair Mentoring Grants - due Feb 26th

<https://ssp-advocate-grant.fluidreview.com> - The parent organization for the International Science and Engineering Fair (ISEF), Society for Science & the Public, is sponsoring grants for teachers, scientists, or mentors to provide support for underserved students. The Advocate Grant Program awards \$3,000 stipends as well as a trip to Washington, D.C. for training. The goal is to mentor students through the process of doing science research projects and learn about the fairs and competitions available to these students.

- Biology Phenomena and Stories from the CA Academy of Sciences

<http://www.biographic.com/> - This is a beautiful website that allows you to delve into stories of nature that relate real science in practice. I was pulled in by the insect farming story!

Student Opportunities

- Capital State Science and Engineering Fair (Madison) - Feb 18th - and Badger State Science and Engineering Fair - Mar 11th

<https://goo.gl/CFb5BB> - Science Fairs have the potential to engage students in meaningful and engaging science projects. Come visit the Madison area regional fair for ideas for your classes. It will be at the downtown Madison Public Library, with a public viewing from 2:30 to 4. You can also visit the [Badger State Science and Engineering Fair](#) (BSSEF) at Marian College in Fond du Lac this year on March 11th. For the BSSEF there is a public viewing time from 3:30 to 5:00 PM with the Award Ceremony at 5:30 PM. You can also view the award ceremony live at <https://www.youtube.com/channel/UCkbKXSKxWXeFiogkYQck-g>. *There is also still time to register a project for the event - all are welcome (you don't need to have won at a school or regional event).

- Wisconsin Crystal Growing Contest - starting Mar 1st

http://xray.chem.wisc.edu/WICGC_2017.html - No entry fee, with one contest for HS students and one for MS students. Who can grow the largest and highest quality crystal?

- Kid Wind Challenge in Madison - March 11th

<https://energy.wisc.edu/events/kidwind-challenge> - The first ever KidWind Challenge in WI will be March 11th at the Wisconsin Energy Institute at UW-Madison. As this is our first ever [KidWind Challenge](#) in Wisconsin, and time is short, we will have two categories of participants: Event Challenge Division - This will consist of teams that construct and bring a fully built turbine to the challenge. You will test your turbine in a wind tunnel, meet judges and also do instant challenges. Teams that participate and place in this division will be eligible to attend the [National KidWind Challenge](#) at Windpower 2017.

- EgGS (Engaging Girls in STEM) Career Connection Program - Apr 1 or May 13

<http://eggsinitiative.org/upcoming-programs/> - These "Prep-Pro" programs on Apr 1st in Glendale and May 13th in Wauwatosa provide girls the opportunity to meet with professionals across STEM fields. Each is 8:30 to 12:30 and free, but space is limited. Registration is due by Mar 10th and Apr 21st respectively.

- UW-Madison Engineering Expo - Apr 7th - 8th

<http://engineeringexpo.wisc.edu/> - This two day event has opportunities for class field trips and family exploration where people can engage in hands-on engineering activities at UW-Madison! I've heard rave reviews about this event as a field trip.

- Science Olympiad State Tournament - UW Milwaukee - Apr 7th - 8th

<http://www.wisconsinso.org> - Science Olympiad is hands on STEM, with engaging science and engineering learning! If you're not familiar with this program for MS and HS students, plan to go check out the state tournament to learn what it's all about. Regional tournaments are happening in February.
