



Hello Colleagues,

The big news to share today is that Supt. Evers has officially adopted our new Wisconsin Standards for Science! You can find pdf and Word versions of them here: dpi.wi.gov/science/standards. Over the next weeks, months, and years, we'll be adding resources to support implementation of these standards. The first of these tools that you'll see on this page is [Appendix A](#), a list of Wisconsin contexts and engineering extensions for teaching these concepts.

If you're a district already using NGSS (as most are), you can continue to use NGSS if desired (local decision). Our new standards have some modified language and a different template, but the core content, practices, and crosscutting concepts are the same.

Below 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.

Cheers,
Kevin

Learning Opportunities

- [2018 WSST/DPI Virtual Book Study](#) - Sign-ups now open
- [NSTA Milwaukee Conference](#) - Thank you volunteers!
- [PAEMST Application Now Open for K-6 Teachers](#)
- [Elkhorn Mini-Maker Faire](#) - Jan 27
- [Groundwater Modeling Workshops](#) - Jan 17 or Feb 14
- [Knowles New Teacher Fellowships](#)

Resources

- [Statewide Science Needs Assessment](#) - last chance to contribute
- [New Online Sample Assessment Items like the Forward Exam](#)
- [Blog Post on Creating Performance Tasks w/ NGSS](#)
- [Do You Have Aerospace or Aviation classes or clubs?](#) DoT wants you!
- [National Research Council Report on Science Literacy](#)
- [Fab Lab Grants](#)
- [Cool Evolution \(Evo-Devo\) Video](#)

Student Opportunities

- [National Youth Science Camp](#) - Applications now open
 - [NASA Microgravity Experiments for High School Students](#)
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Details

Learning Opportunities

- 2018 WSST/DPI Virtual Book Study - Sign-ups now open

<https://goo.gl/forms/d1ERMkpjKZMjWPNS2> - In this third edition of our online book study we'll be digging into the new book, [Helping Students Make Sense of the World Using Science and Engineering Practices](#). There will be virtual meetings in Jan, Feb, Mar and Apr. WSST members or those applying for [PAEMST](#) can receive the book for free (though we ask that you do actually participate in the book study if you receive the free book). Here's a [flyer about the Book Study](#) to post and share.

- NSTA Milwaukee Area Conference - Nov 9-11

<http://www.nsta.org/conferences/area2.aspx> - If you weren't able to make it to the amazing conference last week, you can still access the shared conference materials (though I think that's limited to NSTA members or conference registrants). Thanks to all those who volunteered to help pull it together! We ended up with **over 1000** Wisconsin educators there! I'm already looking forward to the WSST conference in Madison in March of 2019.

- PAEMST Application Now Open for K-6 Teachers

<https://www.paemst.org/> - This award is open to K-6 math, science, tech, computer science, engineering, ...STEM teachers. Applications require a video of a lesson and a written reflection on it. Two Wisconsin awardees receive \$10,000 and a trip for two to D.C. We have mentoring available to help with the process and review work (great professional learning!). You can apply or nominate someone else. Applicants receive a free book (see Book Study post above).

- Elkhorn Mini-Maker Faire - Jan 27

<https://elkhorn.makefaire.com/> - Educators, students, and community members can sign up to share resources and ideas for making. You can also come to just look around and talk. It's at the Elkhorn Middle School from 9 to 4. It's free to exhibit, or \$50 if you're selling things.

- Groundwater Modeling Workshops - Jan 17 or Feb 14

<http://dnr.wi.gov/education/educatorresources/groundwater/> - Consider submitting an application to attend the 2018 Groundwater Model Workshops where you will receive a FREE Hands-on Groundwater Model to use with your students. The workshops share resources that can be used to teach lessons specific to Wisconsin geology and groundwater management concerns. In addition to receiving a groundwater model (value \$700), there is money available to cover the cost of up substitute teachers to allow you to attend one of the

one-day workshops on either Jan. 17th near Milwaukee or February 14th near Eau Claire. NOTE: the deadline has been extended to Dec 1st to apply to attend. The application takes ~10 minutes to complete.

- Knowles New Teacher Fellowships

<http://kstf.org/fellowships/> - The Knowles Fellowship provides funding and networking for teachers who will be in their first or second year during 2018-19. It's rumored to be a fabulous support community. Many applicants earned a degree in a STEM field, worked in industry/academia for a few years, and then decided to become a teacher. You have to have earned such a STEM-related degree in the last 10 years.

Resources

- Statewide Science Needs Assessment - last chance to contribute!

<https://goo.gl/forms/VzkgFXexGcsXbl0K3> - If you haven't yet added your current science work and needs to the this statewide survey, please do so. It will help determine resource development and support networking across districts. Congratulations to those who won prizes for filling it out: Rachael Gjerde, who won free NSTA conference registration; and, Cherrie Maner, Kelly Steiner, Sarah Ludwig, Erin Baillargeon, and Pete Jaeger, who won some great NSTA Press books.

- New Online Sample Assessment Items like the Forward Exam

<https://wbte.drcedirect.com/MI/portals/mi/> - At this page go to the M-Step Online Tools Training, then the Sample Item Sets for grades 5, 8, or 11. While Wisconsin hasn't yet released our sample Forward Exam items in science, Michigan uses the same test developer, so you can get a good sense of what our items will be like by looking through theirs (except that we won't have open-ended response items like MI).

- Blog Post on Creating Performance Tasks w/ NGSS

<https://wisdpiscience.blogspot.com/> -

- Do You Have Aerospace or Aviation classes or clubs? DoT wants you!

The Wisconsin Department of Transportation, Bureau of Aeronautics is looking for information regarding which schools in the state offer aviation or aerospace classes or clubs, or in other ways integrate aviation into their curriculum. In addition, they are looking for information regarding which schools offer Imagine Mars (or similar) units and activities. If your school offers any of these, please contact Meredith Alt, Aviation Education Program Manager at WI DOT: meredithl.alt@dot.wi.gov Thank you!

- National Research Council Report on Science Literacy

<https://www.nap.edu/catalog/23595/science-literacy-concepts-contexts-and-consequences> - In case you missed it when it came out last year, this is a report from the National Academy of Science on what scientific literacy means, the state of it across the country, and what needs to be done to support it.

- Fab Lab Grants

InWisconsin.com/fablabs - WEDC is once again supporting grants of \$25,000 to districts or district collaboratives to support Fab Lab materials. Matching funds are required. Applications are due Dec 14th.

- Cool Evolution (Evo-Devo) Video

https://www.youtube.com/watch?v=ydqReeTV_vk - My day was brightened by this rendition of "Despacito" with a developmental evolution theme, so I thought I'd share! It connects well to the work of Dr. Sean Carroll, UW-Madison and HHMI Professor. It might be fun to have students create something like this...

Student Opportunities

- National Youth Science Camp - Applications now open

<https://nysc.fluidreview.com/> - This is an amazing opportunity for graduating seniors to spend four weeks at an amazing facility in the forested hills of West Virginia digging into cutting-edge science and learning from top-notch researchers. There's also a trip to D.C. to advocate for science. All expenses are paid! Please, encourage your students to apply (we don't get enough applicants). [Here's a newspaper article](#) about a WI student who attended last year. [More details here as well.](#)

- NASA Microgravity Experiments for High School Students and Educators

<http://go.nasa.gov/nasamgue> - Microgravity University for Educators invites teams of high school students and educators to solve technical challenges by designing and building prototypes for testing in NASA's unique facilities. While at NASA, teams will: Test designs using NASA's simulated microgravity environments; participate in authentic STEM experiences; learn to incorporate NASA Education resources and experiences in the learning environment; earn professional development hours. The proposal deadline is December 13.

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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