



April 11, 2016

Hello Science Education Leaders,

Here are the latest science education resources and opportunities I've heard about. I learned about several from the [CSSS](#) and [NSTA](#) meetings last week in Nashville (a fun place to visit!). If you have announcements to share about science or STEM-related professional learning and resources, please send them my way for the next edition.

Cheers,
Kevin

Learning Opportunities

- [Science Committees for the new Forward Exam](#) - June and August
- [NGSS Formative Assessment Research Project w/ UW-Madison group](#) - ELL focus
- [WI Lesson Database - Paid WISELearn Curator Days](#) @ CESAs - Apr and May
- [Science PD at WEI Summer Academies](#)
- [Short-term, Summer Fulbright Opportunities](#) in Botswana, India, Mexico, and Vietnam

Resources

- [WISELearn website now Beta testing](#)
- [Version 2.0 of NGSS-aligned Instructional Resources Eval Tool](#)
- [Research and Practice Collaboratory NGSS Implementation Tools](#)
- [Design Based Implementation Research](#) - NGSS/Science Tools
- [STEM Teaching Tools](#) - new ones available related to NGSS and STEM
- [Page Keeley Formative Assessment Probes](#)
- [AMNH NGSS Tools](#)
- [Draft Plan for NGSS Learning and Work](#)

Student/Class Opportunities

- [Monarch Butterflies and Milkweed Citizen Scientist Project in WI](#)
- [Every Kid in a Park](#) - Free NP passes for 4th graders and families
- [Trees for Tomorrow](#) - Careers in Natural Resources Workshop for HS Students

Details

Learning Opportunities

- Science Committees for the new Forward Exam - June and August

<http://dpi.wi.gov/assessment/forward/educator-involvement> - apply to be part of the science assessment review teams. June 14-17 will be a standards-setting panel, determining elements such as proficiency score cut-offs. This meeting will take place in the Dells. August 22-24 will be an item review session, evaluating new items written for our test. This session will be in Madison. Travel reimbursement will be provided for each.

- NGSS Formative Assessment Research Project w/ UW-Madison group, ELL focus

<http://bit.ly/1Vi7zkn> - An assessment group at UW-Madison recently received a grant to develop computer-based formative assessment items that align to the NGSS for **middle school grades**. They're specifically designed to be accessible to ELLs. Schools/teachers can receive stipends for participating plus free professional development. Researchers are particularly looking for schools with large EL populations.

- WI Lesson Database - *Paid* WISELearn Curator Days @ CESAs - Apr and May

<https://www.smore.com/yxud5> - DPI continues work with CESAs to create a database of lessons and other instructional materials for teachers. For going through the training, you can receive a stipend, and for the day of the meeting, your district will be reimbursed for a sub. Help teachers across the state have access to great ideas for science lessons!

- Science PD at WEI Summer Academies

https://wei.thescholarschoice.org/site.php?page_id=1210&subpage=1345&catalog_id=22&search_key=
Sara Krauskopf will be conducting science workshops at the Verona Academy June 21-23 and at the Cudahy Academy Aug 2-3. Verona will focus on place-based learning, going outside to develop interdisciplinary inquiry work for K-8. The Cudahy work will focus on learning to create electronic surveys, tables, and graphs using Google tools and think about how these skills integrate into all areas of instruction.

- Short-term, Summer Fulbright Opportunities in Botswana, India, Mexico, and Vietnam

<http://www.fulbrightteacherexchange.org/program-opportunities-short-term> - get outside of the U.S. and support international education! This would be amazing...

Resources

- WISELearn Site is Now Available!

<http://dpi.wi.gov/wiselearn> - The WISELearn site at DPI is now live. And within the WISELearn site is a database of instructional resources, many curated and reviewed by Wisconsin educators (and aligned to NGSS)- <https://wiresources.dpi.wi.gov/>. Let me know if you have any feedback, as it's still in beta mode.

- Newer version of NGSS-aligned Instructional Resources Eval Tool

<https://drive.google.com/file/d/0B1V44r8BY1ugM2k1R0QxOTFNaU0/view?usp=sharing> - After revisions from a great group of Wisconsin educators (Chris Pratt, Deb Kneser, Dave Bergerson, Laura Cerletty, and Sarah Adumat), as well as a national group (CSSS), this is v2.0 of an NGSS-based instructional resources evaluation tool.

- Research and Practice Collaboratory NGSS Implementation Tools (Good Stuff!)

- 1) http://researchandpractice.org/resource/anchor_phenomena/ - Guidance on qualities of good anchor phenomena for your units.
- 2) <http://researchandpractice.org/resource/task-formats-to-help-educators-create-three-dimensional-ngss-assessments/> - task prompts/formats for creating assessments aligned to the science and engineering practices.
- 3) http://researchandpractice.org/wp-content/uploads/2016/03/StepsToDesigningaThreeDimensionalAssessment_v3.pdf - Steps to designing a 3D assessment.
- 4) The R+P home page for more resources: <http://researchandpractice.org/>

- Design Based Implementation Research - NGSS/Science Tools

<http://learndbir.org/talks-and-papers/csss-2016-workshop-adapting-curriculum-for-3-dimensional-learning> - lots of great resources on this page such as a 5E lesson plan template and a template for creating unit storylines.

- STEM Teaching Tools - more and more available on science and NGSS!

I've shared these tools before, but with more being added I thought I'd share them again. They each link to current science education research to back up their suggestions. Some that I currently like include How to Structure Professional Development - <http://stemteachingtools.org/brief/13>, and Getting Students' Hands Dirty - <http://stemteachingtools.org/brief/20>. If you're looking for help on a topic related to science and STEM, you'll likely find it here (if you don't, let me know, and I'll suggest they make it).

- Page Keeley Formative Assessment Probes

<http://uncoveringstudentideas.org/nash2> - I have to admit that I've been a little skeptical of these probes. After a session at NSTA that showed some depth on connecting them to students' preconceptions, I started to like them much more. There are a lot of free resources on this site, so you don't need to necessarily buy something to try them out and see what you think.

- AMNH NGSS Tools

<http://amnh.org/ngss-tools> - These tools include developing 3D unit blueprints, using PEs to craft assessments, using the 5E model to craft 3D storylines/instructional sequences, and creating performance tasks.

- Draft Plan for NGSS Learning and Work

<https://drive.google.com/file/d/0B1V44r8BY1ugRURoR21YOTFYekU/view?usp=sharing> - I've talked to a few districts who are looking for ideas on what a professional learning plan might look like for new science standards (of any variety). This is a quick draft of such a plan - your feedback would be welcome!

Student/Classroom Opportunities

- Monarch Butterflies and Milkweed Citizen Scientist Project in WI
-

<http://siftr.org/milkweed/> - Joe Riederer, Wisconsin Rapids teacher, is launching a milkweed mapping project this month using a new app developed at the University of Wisconsin called Siftr (great app you can use too - <http://siftr.org/>). In this project, volunteers will search their neighborhoods for milkweed stands and monarch butterfly activity. With the Siftr app and a mobile device, they will take photos to record what they observe. The Siftr app plots the location of the photos on a Google map, and the results will be a publicly available map. Through this project, Joe hopes to raise awareness of the importance of preserving milkweed plants and to highlight milkweed's critical role in the life cycle of monarch butterflies.

- Every Kid in a Park - Free NP passes for 4th graders and families

<https://www.everykidinapark.gov/> - Encourage your 4th grade students and their families to get out into the National Parks this year with free park passes! Of course, encouraging all of your students and their families to get out into nature is a good idea.

- Trees for Tomorrow - Careers in Natural Resources for HS Students

<http://treesfortomorrow.com/programs/careers-workshop> - Are your students possibly interested in careers in natural resources? This high school HS student career learning opportunity takes place June 13-17 in Eagle River, and the deadline to apply is Apr 29.

Kevin J. B. Anderson, PhD, NBCT
Wisconsin Department of Public Instruction
Science Education Consultant
Content and Learning Team
kevin.anderson@dpi.wi.gov
(608) 266-3319
@wisDPIscience

“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