



Hello Science Education Leaders,

I hope the new year is going well for you! Here are the latest resources and opportunities I've heard about. If you have announcements to share about science-related professional learning and resources, please send them my way.

Cheers,  
Kevin

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### Opportunities for Educators

- [Wisconsin Science Education Leadership Association \(WSELA\) Networking Meeting](#) - Feb 16 - Fond du Lac
- [Camp Badger for Teachers - STEM Institute](#) June 20-24 in Madison and July 11-15 in Oshkosh.
- [American Farm Bureau - Ag Science Workshop on Beef](#) - Mar 28-30 - Nashville
- [American Geosciences Institute \(AGI\)/ExxonMobil Exploration Teacher Leadership Academies](#) - July
- [NGSS Basics and Science Disciplinary Literacy](#) - Feb 8 - CESA 1
- [Science Networking and NGSS](#) - Mar 8 - CESA 5
- [Science Networking and NGSS](#) - Mar 10 - CESA 2
- WSST Conference Apr 22 - [Standards-Based Grading Networking Group](#)
- WSST Conference Apr 22 - [ELL Science Teacher Network Group](#)
- [Wisconsin Education Innovations NGSS PD](#) - Feb 5 and 11
- [AP Summer Institute at UW-Madison](#)
- [Real World Science - Free Summer Institute in New Orleans](#) - 5-8 teachers

### Resources

- [New NSTA videos on NGSS instruction and ELLs](#) (starring Madison educators!)
- [Edweek blog posts on teaching ELLs science](#)
- [Performance Assessment Resource Bank w/ rubrics](#)
- [Blog Post Series - Evaluating a Science Program Renewal Process](#)

### Opportunities for Students

- [National Youth Summer Camp](#) - Free, prestigious camp for graduating seniors
  - [NASA's 2015-16 Cassini Scientist for a Day Essay Contest](#) - grades 5-12
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### Opportunities for Educators

- **Wisconsin Science Education Leadership Association (WSELA) Networking Meeting** - Feb 16 - Fond du Lac

The focus of this day is to network around science education initiatives and share progress in NGSS implementation. All are welcome. Free for first-timers, \$20 for others to cover snacks and lunch. The afternoon

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will include workgroup time around assessments, standards-based grading, course sequencing, and/or other topics determined by the group. From 9 to 3 at Marian College, Stayer Center. Please, make sure to RSVP to Kevin Niemi, [kjniemi@wisc.edu](mailto:kjniemi@wisc.edu).

- **Camp Badger for Teachers - STEM Institute** June 20-24 at UW-Madison and July 11-15 at UW-Oshkosh - <https://eyo.engr.wisc.edu/cb4t/>

This week long STEM education institute focuses on helping science teachers integrate engineering into their instruction based on the NGSS. Math and CTE teachers have also found it useful. Teachers at any grade can apply, though it will be most relevant in grades 4-10. There is a small \$30 registration fee, with breakfast and lunch included. Credits are available at a discounted rate. Tour engineering labs and companies, go through sample lessons, and develop and try out a collaboratively created STEM lesson.

- **American Farm Bureau - Ag Science Workshop on Beef** - Mar 28-30 - Nashville - <http://www.agfoundation.org/projects/beef-educator-event>

This hands-on agricultural science workshop on the beef industry is in Nashville will run immediately before the annual NSTA conference. Teachers who complete the three days and reflect on their experience will earn \$2000, and receive free food/accommodations for the three days (enough to pay for airfare and attending NSTA afterward!).

- **American Geosciences Institute (AGI)/ExxonMobil Exploration Teacher Leadership Academies** - K-5 Institute:

[http://www.americangeosciences.org/sites/default/files/education-K-5\\_Leadership\\_Academy2016.docx](http://www.americangeosciences.org/sites/default/files/education-K-5_Leadership_Academy2016.docx)

and K-6 Institute: [http://www.americangeosciences.org/sites/default/files/education-Middle\\_Leadership\\_Academy2016.docx](http://www.americangeosciences.org/sites/default/files/education-Middle_Leadership_Academy2016.docx)

Two weeklong geosciences workshops are being offered by the American Geosciences Institute in Houston, TX, all expenses paid. MS will be from July 17-22, ES will be from July 19-25. Emphasis will be on applying science and engineering practices in an earth systems context. Teacher teams are encouraged to apply. Nominations/applications are due by March 1st.

- **NGSS Basics and Science Disciplinary Literacy** - Feb 8 - CESA 1 -

[http://www.cesa1.k12.wi.us/pro/event\\_view.cfm?memberid=78&eventid=372392](http://www.cesa1.k12.wi.us/pro/event_view.cfm?memberid=78&eventid=372392)

This workshop at CESA 1 (Pewaukee) will focus on learning the basics of NGSS (structure, lesson planning, assessments, links to WMASS/NRC Framework), along with connections to disciplinary literacy. It will last from 9 to 3:30, with lunch provided. Kevin Anderson, DPI Science Education Consultant, will be the presenter.

- **Science Networking and NGSS** - Mar 8 - CESA 5 -

<http://www.myquickreg.com/event/event.cfm?eventid=13191>

This opportunity for science educators to network will allow for districts to share what they're doing with science standards, lessons, assessment, and curriculum. Kevin Anderson, DPI Science Education Consultant, will help facilitate the meeting.

- **Science Networking and NGSS** - Mar 10 - CESA 2 - link to come...

This opportunity for science educators to network will allow for districts to share what they're doing with science standards, lessons, assessment, and curriculum. Kevin Anderson, DPI Science Education Consultant, will facilitate the meeting and share resources in these areas.

- **WSST Conference Apr 22 - Standards-Based Grading Networking Group** -

<https://wsst.wildapricot.org/page-1828344>

Working on standards-based grading (SBG) in science in your district? On Friday, Apr 22nd, at the WSST conference, we're going to have a sharing and networking session around SBG, with a particular emphasis on NGSS though it will be relevant to all.

- **WSST Conference Apr 22 - ELL Science Teacher Network Group** -

<https://wsst.wildapricot.org/page-1828344>

Do you have English Learners in your science classroom? On Friday, Apr 22nd, at the WSST conference, we're going to have a sharing and networking session around supporting ELs in science. We'll also have some more

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formal strategy sharing mixed in, supported by Emily Miller, who helped write the EL case studies and guide for NGSS. We're hoping this group will become a standing network in the state.

- **Wisconsin Education Innovations (WEI) NGSS PD - Feb 5 and 11 -**  
[https://www.wei.solutions/site.php?page\\_id=1210&subpage=1275](https://www.wei.solutions/site.php?page_id=1210&subpage=1275)

The February 5th workshop will be geared to grades K-5 teachers, February 11th will be geared to grades 6-12 teachers - both will be conducted by Karen Mesmer. In this workshop, teachers will learn about and work on ideas for to implement Next Generation Science Standards in their classroom, with an emphasis on three-dimensional learning. Ties to literacy and ideas for assessment will also be discussed. Each will be from 8:30 to 3 at Concordia University in Waukesha - 1 credit available.

- **AP Summer Institute at UW-Madison - June 20-24 -**  
<https://eop.education.wisc.edu/eop/professional-learning/conferences-institutes/advanced-placement-summer-institute>

Teach AP biology or chemistry? Check out the AP Summer Institute at UW-Madison!

- **Real World Science - Summer Institute in New Orleans - 5th-8th grade teachers -**  
<http://www.nationalww2museum.org/learn/education/for-teachers/summer-teacher-seminar.html>

This week-long summer institute at the National WWII Museum asks how necessity creates innovation in science and technology. Science and social studies teachers are welcome. You will receive free room and board in New Orleans, a travel stipend, and all seminar materials free of charge. You need to have taught for 2-10 years and be teaching again next year.

## Resources

- **New NSTA videos on NGSS instruction and ELs (starring Madison educators!)**

Are you working with the NGSS? More and more videos are being released by Achieve and NSTA to see the practices in action. A recent series of videos filmed in Madison, starring local educators Melina Lozano and Emily Miller, are now available: Supporting Talk -- <https://youtu.be/l0-u0gMa-pU>. Introduction to 3-D learning, funds of knowledge, and place-based science -- <https://youtu.be/XJBN6BX04Ms>. Core ideas and cross-cutting concepts -- <https://youtu.be/7axBNmfbhJM> How practices change -- <https://youtu.be/Jal6uAlZcsw>. NSTA has several other NGSS videos as well: <http://ngss.nsta.org/ngss-videos.aspx>

- **Edweek blog posts on teaching ELs science**

A couple recent Edweek blog posts have also focused on strategies for supporting ELs in science: [http://blogs.edweek.org/teachers/classroom\\_qa\\_with\\_larry\\_ferlazzo/2016/01/response\\_teaching\\_ells\\_th\\_at\\_science\\_is\\_a\\_verb.html?qs=larry+ferlazzo](http://blogs.edweek.org/teachers/classroom_qa_with_larry_ferlazzo/2016/01/response_teaching_ells_th_at_science_is_a_verb.html?qs=larry+ferlazzo), and [http://blogs.edweek.org/teachers/classroom\\_qa\\_with\\_larry\\_ferlazzo/2016/01/response\\_teaching\\_science\\_to\\_english\\_language\\_learners.html?qs=larry+ferlazzo](http://blogs.edweek.org/teachers/classroom_qa_with_larry_ferlazzo/2016/01/response_teaching_science_to_english_language_learners.html?qs=larry+ferlazzo)

- **Performance Assessment Resource Bank w/ rubrics -**  
<http://performanceassessmentresourcebank.org/>

Effective science assessment has to move beyond multiple choice. A new resource that's gradually building a bank of performance assessments has been created by a group out of Stanford (and Stanford is awesome unless you're an Univ of Iowa fan). It also includes professional development resources to support groups implement performance assessments effectively, considering concepts of validity and reliability.

- **Blog Post Series - Evaluating a Science Program Renewal Process -**  
<http://wisdpiscience.blogspot.com/2016/01/science-program-objectives.html>

I'm starting a new series of blog posts on evaluating a science program. I've talked to several districts who don't have a solid plan for determining whether their change in science programs and/or standards has any effect on outcomes. Posts will come at least once per month through the rest of year.

## Opportunities for Students

- **National Youth Summer Camp - Free, prestigious camp for graduating seniors -**
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<https://nysc.fluidreview.com/>

I've heard this summer camp is an amazing experience for graduating seniors. All expenses are paid. We'll have two students from Wisconsin participate. Students will need to sign up and then sign in to apply. Please, send me an email if you be interested in judging applications (all online, ~2 hours).

- **NASA's 2015-16 Cassini Scientist for a Day Essay Contest -**

<http://go.nasa.gov/1IPEmxn>

A relatively short essay contest for students in grades 5-12 (under 500 words), where students write an essay on why Cassini should take pictures of one of three sets of objects, . The top essays from a class must be submitted by the teacher (or homeschool parent), not students directly.

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