

Hello Science Education Leaders,

Two weeks into the school year - hope things are going fabulously! 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.

Cheers, Kevin

Learning Opportunities

- Wisconsin Science Education Leadership Association (WSELA) Oct 9
- Energy and Science Workshops at CESA 1 Oct 12 & Oct 8, Dec 11, and 12
- WSST Annual Conference Session proposals open
- Maker Faire Milwaukee and Educator Maker Workshop Sept 29
- Einstein Project STEM Innovation Summit Nov 8
- Free Sally Ride EarthKam from ISS
- <u>Stanford NGSS Assessment Project</u> (SNAP) Free, online courses this fall
- <u>Online AMTA Modeling Course</u> this spring (registration now)
- WAEE Annual Environmental Education Conference Oct 18-20
- Fall Experiment Milwaukee Tech Event Sept 22
- <u>Annual sySTEMnow conference</u> Nov 7th
- WASCD Fall Conference Oct 4,5
- Join an NSTA or WSST Committee
- Webinar Overview of the New Wisconsin Standards for Science Oct 10

Resources

- <u>World Space Week</u> (and Neil Armstrong movie) October 4-10
- Tuskegee Airmen program throughout the month of November
- New NSTA Position Statement on Climate Science Teaching
- Wisconsin Robotics Grants, grades 6-12 Due Oct 15
- Wisconsin FabLab Grants applications open Oct 8

Student Opportunities

- <u>Wisconsin Science Festival State Science Project!</u> Oct 11-14
- Nebraska Phenomena Day, sharing ideas through social media Sept 21
- NCWIT Computing Award for HS Girls

<u>NASA Express</u> - lots of NASA-related opportunities

Details

Learning Opportunities

• Wisconsin Science Education Leadership Association (WSELA) - Oct 9

http://www.wsst.org/wesla - The next WSELA meeting will be on Oct. 9th at the Edgewood College Deming Way building on the west side of Madison (plenty of free parking). All are welcome to come network and dig into work as science leaders. The meeting is free if you're a first time attendee, \$20 for others - snacks and lunch included. This month we'll be talking about what 3D science and assessment means, how we teach gender in science class, how we're implementing new standards and/or revising science programs, presenting at conferences, and other topics from the group. Email Kevin Niemi to get on the listserv: kjniemi@wisc.edu.

• Energy and Science Workshops at CESA 1 - Oct 12 & Oct 8, Dec 11, and 12

<u>18-19 Enviro Ed PD Flyer.pdf</u> - Energy workshop in partnership with WI Center for Environmental Education, details for Oct 12th and <u>WISSS Science Workshop.pdf</u> - Oct 8th is a one-day intensive train-the-trainer workshop for implementation of the Wisconsin Science Standards, and Dec 11 and 12 are more in depth team trainings on the new Wisconsin Science Standards.

• WSST Annual Conference - Session proposals open

<u>http://www.wsst.org/conference2019</u> - It's great to be able to learn from each other at the annual conference of the Wisconsin Society of Science Teachers! Consider sharing a piece of your work in short (15min) blocks through 3 hour workshops. We're at a time where learning from each other is critical. Click on the "Call for Presenters" button on this page to submit a proposal.

• Maker Faire Milwaukee and Educator Maker Workshop - Sept 29

https://milwaukee.makerfaire.com/things-to-see-and-do/conference/ - Attend the Milwaukee Maker Faire Sept 28-30 at the Milwaukee State Fair grounds. Friday, Sept 28th includes special time for field trips. Sept 29th is an annual Maker Workshop for educators – classroom teachers, administrators, after-school program staff, librarians and others in the field – with a focus on: practical maker skills in STEAM education; maker activities that can be implemented in the classroom; alignment to academic standards and other assessment topics; and Google Making Spaces schools w/ seven case studies. Participants are invited to bring projects and ideas for design thinking, rapid prototyping and iteration activities. Cost is \$120, parking is not included in that.

• Einstein Project STEM Innovation Summit - Nov 8

<u>https://www.einsteinproject.org/stem-innovation-summit</u> - The Einstine project invites administrators, educators, and other STEM education stakeholders to join them at the UW-Green Bay Weidner Center for the 2nd annual STEM Innovation Summit, focused this year on equity in K-12 STEM and computer science. This event is free.

• Free Sally Ride EarthKam from ISS - September Mission Dates

<u>https://www.earthkam.org/</u> - Sign up for this unique fall opportunity that allows your students to observe Earth from above via a camera on the International Space Station! The Sally Ride Earth Knowledge Acquired by Middle School Students (EarthKAM) program invites students to request images of specific targets on Earth taken by a camera placed in the window of the space station. EarthKAM can be used in any K-12 classroom setting and is a great way to show students a new perspective of Earth.

• Stanford NGSS Assessment Project (SNAP) - Free, online courses this fall

https://sucourses.novoed.com/#!/courses/performance-assessments-fall-2018/flyer - the first course is Performance Assessments in the NGSS Classroom, which goes through evaluating tasks for three dimensions, and analyzing and using student data. https://sucourses.novoed.com/#!/courses/performance-assessments-fall-2018/flyer - the second course digs more into creation of tasks. Both courses are expected to be of high quality - this research-based group does great work!

• Online AMTA Modeling Course - this spring (registration now)

For the spring of 2019, we have scheduled 3 distance learning courses, based on the feedback of almost 500 members who recently completed a survey. The workshops start in January and costs are \$825 for non-members (includes a one-year membership) or \$750 for current AMTA members. Courses require a minimum number of registrants by December 21st in order to run. Enrollment is limited. Details on the courses is available in the registration forms:

<u>https://www.eweblife.com/prm/AMTA/rsvp-signup/apply?record=1234</u> - For people who have taken a first semester chemistry Modeling Workshop, Brenda Royce and Larry Dukerich have agreed to lead a chemistry II course on Tuesday evenings

<u>https://www.eweblife.com/prm/AMTA/rsvp-signup/apply?record=1234</u> - Intro to Modeling course, for people who have not taken a workshop prior, or would like to learn about Modeling in different content areas. This course will be given two evenings per week: Monday and Wednesday.

<u>https://www.eweblife.com/prm/AMTA/rsvp-signup/apply?record=1234</u> - For the first time, we will have an advanced course: Advanced Modeling Instruction: Cognition and Instruction in STEM which will be hosted by Colleen Megowan-Romanowicz on Thursday evenings.

• WAEE Annual Environmental Education Conference - Oct 18-20

http://www.waee.org/2018-annual-conference - the 2018 Annual Conference will take place Friday, October 19th thru Saturday the 20th with workshops and field trips on Thursday October 18th, in the heart of the *real* Wisconsin Dells at <u>Upham Woods</u>. This year's theme is Equity in Environmental Education: #NatureForAll. • Fall Experiment - Milwaukee Tech Event - Sept 22

<u>http://www.fallexperiment.com/</u> - The Fall Experiment is hitting Milwaukee's East Side! Join the region's leading creative and tech innovators for this free, day-long celebration of discovery, entrepreneurship, and creative collaboration. Enjoy hands-on tech workshops in in virtual reality, artificial intelligence, gaming, and digital animation, alongside musical performances and interactive presentations. The event will also include Black Cat Alley's annual Mural Festival and music from The Pabst Theater Group and The Back Room @ Colectivo.

• Annual sySTEMnow conference – Nov 7th

<u>http://www.stemforward.org/systemnow/</u> - Annual STEM education networking and learning conference, from 7:30 to 3:30 at the Italian Community Center in Milwaukee. Attendance largely comes from SE Wisconsin, though several from around the state attend. Keynotes this year are Kelli Wells from the GE Foundation and Erin White of STEMconnector.

• WASCD Fall Conference - Oct 4,5

<u>http://www.wascd.org/fallconference</u> - This annual conference is a must for education curriculum leaders. The theme for this year is mental health, with a range of speakers and break-outs to support your learning.

• Join an NSTA or WSST Committee!

<u>http://www.nsta.org/about/governance/</u> - NSTA recently put out a call to join their committees and advisory boards - a great way to network and grow professionally! Applications are at <u>http://www.nsta.org/about/governance/committees/application.aspx</u>. You can also contact WSST committee chairs to find out about joining a WSST committee: <u>http://www.wsst.org/wsst-committees</u> (click on link to find chair, email that person).

• Webinar Overview of the New Wisconsin Standards for Science - Oct 10

On October 10th from 3:30 - 4:30pm, Kevin Anderson will be facilitating a free webinar to provide an overview of the Wisconsin Standards for Science (WSS). We will discuss the basics of what three-dimensional instruction and assessment looks like in relation to these new standards, as well as have time for Q&A on implementation. The webinar will be recorded and posted on <u>dpi.wi.gov/science/standards</u> for future reference. **To connect: <u>https://widpi.zoom.us/j/559180579</u>, Or by telephone, if computer audio does not work: 1 646 876 9923, Meeting ID: 559 180 579. This will be my kick-off to the Wisconsin Science Festival!

Resources

• World Space Week (and Neil Armstrong movie) – October 4-10

http://www.worldspaceweek.org/ - World Space Week, which commemorates the launch of Sputnik 1 in 1957, is the world's largest celebration of space. Join one of several planned events in Wisconsin or use space-themed activities to excite students about science and technology. Visit the website for Wisconsin event locations and related educational materials. *You might consider connecting Space Week events to the new Neil Armstrong movie, which will be released on Oct 12th.

• Tuskegee Airmen program – throughout the month of November

In November, the Commemorative Air Force Wisconsin Wing at the Waukesha County Airport will utilize an inflatable movie dome to show a 15-minute movie about how the Tuskegee Airmen during World War II overcame racial inequalities to become one of the best bomber escort squadrons during the war. The full program, with discussion of the Tuskegee Airmen and rising above obstacles, is roughly 30-40 minutes in length. The program is free and held at the Waukesha County Airport with content best suited for middle school students. For more information or to schedule a time, contact Mike Fialkowski, Education Officer – CAF Wisconsin Wing, 414-807-6136

• New NSTA Position Statement on Climate Science Teaching

<u>http://www.nsta.org/about/pressroom.aspx?id=60351</u> – this first link is a press release for this statement, though the actual statement can be found here: http://www.nsta.org/about/positions/climatescience.aspx

• Wisconsin Robotics Grants, grades 6-12 - Due Oct 15

<u>https://dpi.wi.gov/stem/grants/robotic-league</u> - This grant provides up to \$5000 in a matching grant to support student teams in creating robots to participate in a robotics competition.

• Wisconsin FabLab Grants - applications open Oct 8

<u>https://wedc.org/programs-and-resources/fabrication-laboratories-grant/</u> - Wisconsin public school districts may apply for a grant to purchase equipment to be used for instructional and educational purposes in one or more fabrication laboratories by elementary, middle, junior high, or high school students. Either a CESA or a lead public school district may apply on behalf of a consortium of two or more public school districts. All applicants must match 1:1 the amount of funding provided by WEDC. During FY19, WEDC is placing a moratorium on applicants that have already received three Fab Labs Grants. This does not apply to Milwaukee Public Schools.

Student Opportunities

• Wisconsin Science Festival - State Science Project! - Oct 11-14

<u>https://wisconsinsciencefest.org/event/statewide-science-challenge-2018-lunchroom-leftovers/2018-10-11/</u> - Join educators from around the state to document and analyze food waste after school meals. This event connects with the Wisconsin Science Festival and aims to start cross-state conversations about a particular unified science topic. There is an outline -

provided by WSF - <u>https://go.wisc.edu/9x6377</u> - though you could go in further directions as well to connect to your curriculum. Data will be gathered through <u>Siftr</u> to share, and there will also be a session at the WSST Annual Conference to share work on this project.

• Nebraska Phenomena Day, sharing ideas through social media - Sept 21

Nebraska Association of Science Teachers invites you to join NATS Phenomena Day 2018 on September 21. Educators and students can contribute ideas of phenomena and follow the work on Twitter at #NATSphenom18, @NDE_Science, @NATS_Science and on Facebook at <u>facebook.com/NATS.Science</u>. The goal of Phenomena Day is to curate a bank of phenomena that will be publicly available on the <u>NATS website</u>. Every half hour, a new topic will be sent out into the Twittersphere and Facebookland for ideas. A Nebraska team will curate the ideas (because they also connect to NGSS, this will be a great tool for Wisconsin educators too).

• NCWIT Computing Award for HS Girls

<u>https://www.aspirations.org/spread-word-about-ncwit-aic-awards</u> - The National Center for Women and Information Technology (NCWIT) Award for Aspirations in Computing honors young women active and interested in computing and encourages them to pursue their passion for technology. NCWIT and its Wisconsin affiliate seek high-school- level young women to apply for the NCWIT Award for Aspirations in Computing. Girls can visit the site now and register for the competition - <u>https://www.aspirations.org</u>. National awardees will be announced early in December, 2018. Wisconsin awardees will be notified by the end of January, 2019. Visit our NCWIT-WI Affiliate site for further information: <u>http://ncwit.org/awardwi</u>.

• NASA Express - lots of educator and student opportunities

<u>https://blogs.nasa.gov/educationexpress/</u> - in this edition of NASA express, I'm particularly excited about opportunities for students to design experiments for CubeSats (even elementary students have done this) and the Earth Science Photo Contest. You can also sign up for these emails.

Kevin J. B. Anderson, PhD, NBCT Wisconsin Department of Public Instruction Science Education Consultant Content and Learning Team <u>kevin.anderson@dpi.wi.gov</u> (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