



Hello Science Education Leaders,

Here are the latest science education resources and opportunities I've heard about (lots going on right now!). 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 \(WSELA\)](#)
- [WSST Science Instructional Materials Forums](#) - throughout state in April and May
- [Present at Midwest Energy and Sustainable Living Fair in Custer](#) = Free Admission - submit by Feb 15th!
- [Every Teacher a Leader Summit](#) - applications due Feb 18
- [Great Lakes Educator Research Trip](#) - July 9-15
- [American Wilderness Leadership School](#) - Jackson Hole, WY
- [Elementary Making Sense of Science Workshop](#) - Edgewood College June 11-15
- [Medical College of Wisconsin](#) - Conversations w/ Scientists Series
- [Summer Biotechnology Institutes at the BTC Institute](#)
- [Summer Institute for Climate Change Education](#) - June 26-28, Minnesota

Opportunities w/ Requests

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- [Rural Educator?](#) Share Your Story on the WSST Rural Science Teacher Survey

Resources

- [New DPI Elementary Science Website](#) - Strengthening Elementary Programs!
- [Science Classroom Observation Supports](#)
- [Great Ed Leadership Articles on Assessment from ASCD](#)
- [Minecraft Chemistry Update for Education Edition](#)
- [New NOAA Resource](#) - *Beat the Uncertainty. Planning Climate Resilient Cities.*
- [Fun Stuff!](#) - Music Video on the Neuroscience of a Crush (and Love)

Student Opportunities

- [Aldo Leopold Essay Writing Contest](#) – Grades 9-12
 - [WSST Essay Contest](#) - all grades
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Details

Opportunities

- Wisconsin Science Education Leadership Association (WSELA)

This group meets three times a year to discuss current topics of interest related to improving work in science education. Recently, that has been a lot of talk around NGSS/WSS implementation. We've also recently discussed licensing, standards-based grading, instructional materials choices, and elementary science supports. All are welcome! Join the email list to get details - email Kevin Niemi: kjniemi@wisc.edu.

- WSST Instructional Materials Forums - throughout state in April and May

<http://bit.ly/2F2ni8U> - WSST is excited to provide a forum for all educators involved in reviewing and selecting instructional materials for science. The day will include opportunities for districts to share where they are at in the process of instructional materials selection and what they are looking for. The NGSS/WI Science Standards philosophies will be reviewed and tools will be provided for evaluating instructional materials. We'll also discuss how to adapt materials to better align to the NGSS/WSS, as no resource is perfect. It's free for members (or \$25 for non-members, which is the cost of a membership). April 17 in Menasha, Apr 26 in Milwaukee, May 3 in Tomahawk, May 10 in Menomonie, and May 16 in Baraboo. The National Academies just released [a workshop report on NGSS instructional materials](#).

- Midwest Energy and Sustainable Living Fair - proposals due Feb 15th

Present at the 29th Annual Energy and Sustainable Living Fair in Custer, WI on June 15-17, 2018. The Energy Fair would benefit from presentations on community or school projects that highlight sustainability education. Consider a presentation in the Educator tent, where K-12 educators from around the state come to learn from other educators or industry experts. If you're interested in presenting an Educator-focused workshop at the Fair, [please submit a workshop proposal here](#) by Feb. 15. Presenters get free entry into the Fair for the entire weekend.

- Every Teacher a Leader Summit - applications due Feb 18

Applications for the second [Every Teacher a Leader Summit](#) are now being accepted. The event will again be held at Lambeau Field in Green Bay on April 27-28 and applications are due Feb 18. The summit, designed to increase and recognize teacher leadership, was inspired by the national Teach to Lead Teacher Leadership Summit. Supt Tony Evers and 2013 WI Middle School Teacher of the Year Amy Traynor attended the event and returned home with a strong desire to bring the concept to Wisconsin. Teams of educators will bring a teacher leadership idea, develop that idea into an actionable plan with a team, and meet others who can help you along the way.

- Great Lakes Educator Research Trip - July 9-15

<http://www.cgll.org/opportunities/2018-lake-ontario-shipboard-science-workshop/> - upcoming opportunity sponsored by the Sea Grant Center for Great Lakes Literacy (CGLL). CGLL and U.S. Environmental Protection Agency invite teachers working with 4th-10th grade students in the Great Lakes Basin and informal educators with a Great Lakes focus to apply for a spot on this

unique, expenses-paid, educators' cruise. You'll work side-by-side with scientists on the 180-foot US EPA research vessel Lake Guardian. Participants board the ship in Buffalo, NY on July 9 and disembark at Youngstown, NY on July 15.

- American Wilderness Leadership School - Jackson Hole, WY

<http://www.newisci.org/awls.html> - The Northeast Wisconsin Chapter of the Safari Club International provides a scholarship covering the \$900 registration fee for the American Wilderness Leadership School (AWLS) sponsored by SCI in Jackson Hole, WY. Travel and credits are at the educator's own expense. The teachers that apply can teach anything at any grade level, and administrators can apply too. Lodi teacher Michelle Howe attended last year and found it to be AMAZING. Contact SCI Director of Education Roberta "Bobbie" Windus at 920-604-1687 or email rwindus@yahoo.com to get an application, which is due to her by April 1, 2018.

- Elementary Making Sense of Science Workshop - June 11-15 Edgewood College, Madison

<http://pd.edgewood.edu/modules/shop/index.html?action=section&OfferingID=678380&SectionID=678390> – This 5-day course is designed for K-8 teachers who would like to strengthen their content and pedagogical content knowledge of earth science and explore what scientific inquiry looks like in geoscience. The course is facilitated using an adult-learner model, and participants work together to deepen their understanding of the science, regardless of where they start. Each day will focus on a different aspect of Earth's systems (e.g. rocks, soil), including how they change over time and how they interact with each other. The investigations are aligned with the Next Generation Science Standards and Wisconsin Standards for Science.

- Medical College of Wisconsin - Conversations w/ Scientists Series

<https://www.mcw.edu/Advancing-Healthier-WI-Endowment/News-and-Events/Conversations-with-Scientists/View-Upcoming-Events.htm> - This health education series is live at the Medical College of Wisconsin in Milwaukee and live-streamed at the Wausau/Central Wisconsin campus. The Conversations with Scientists program offers an engaging and interactive glimpse into the world of human health and disease, and explores the latest research. The spring series is titled, "Precision Medicine: Own your own genome," and it will be held from 6:30 – 8:30 pm, Wednesdays April 11, 18, 25, and May 2. Each evening, audience members will learn from MCW experts about the history of precision medicine and what we need to know about the "genome," how scientists use research to solve tough medical cases, the power in understanding our DNA, and new ways doctors and scientists are using genetic information to understand disease and care for our health. Registration is free, but limited. Free parking is available at both locations, and light refreshments will be provided.

- Summer Biotechnology Institutes at the BTC Institute

<https://www.btc.org/k-12-programs/programs-for-teachers/> - Are you interested in learning more about biotechnology and how to implement it with your students? The BTC Institute located in Madison, WI has 3-5 day summer courses designed for teachers: *Biotechnology: The Basics*, *Biotechnology: Beyond the Basics*, and *Biotechnology: The Basics for Middle School Teachers*. There are no course fees, you receive a stipend, and optional graduate education credits are available. These courses tend to fill up quickly!

- Summer Institute for Climate Change Education - June 26-28, Minnesota

<https://www.climategen.org/what-we-do/education/professional-development/summer-institute/summer-institute-2018/> - Join a network of teachers from across the country dedicated to bringing science, critical thinking, and problem solving about climate change into the classroom. Registration - \$200 and lodging \$37/night - with scholarships available.

Opportunities w/ Requests

- Public Comment Period - Social Studies and Environmental Literacy and Sustainability Standards

Please take a look at these draft standards and share suggestions! Feedback is due by March 1st. Environmental Literacy and Sustainability: <http://bit.ly/2ClrOpX>
Social Studies: <http://bit.ly/2EHs4V7>

- Rural Educator? Share Your Story on the WSST Rural Science Teacher Survey

https://uwstout.qualtrics.com/jfe/form/SV_6KgOoshwgMc0tuJ - WSST is working on a report on the needs and stories of rural science teachers. Please, take a minute and complete this survey if you're in a rural district.

Resources

- New DPI Elementary Website - Strengthening Elementary Programs!

<https://dpi.wi.gov/science/elementary> - Ideas on the importance of elementary science, ways to structure it, lesson examples, and professional learning resources. Because students largely develop their identities in STEM subjects in elementary school (am I science person?), we need to make elementary science a stronger priority.

- Science Classroom Observation Supports

<http://www.nj.gov/education/aps/cccs/science/ScienceInstructionCompanion.pdf> - This doc from New Jersey connects the Danielson model elements to some NGSS/WSS ideas. This doc from Massachusetts, <http://www.doe.mass.edu/stem/ste/?section=classroom>, includes some specific look-fors in science for each grade level, based on NGSS content.

- Great *Ed Leadership* Articles on Assessment from ASCD

<http://www.ascd.org/publications/educational-leadership/feb18/vol75/num05/toc.aspx> - this latest edition of *Education Leadership* is all about assessment! It includes some great ideas to consider in school PLCs, leadership conversations, and individual teacher reflections. There are several free articles worth reading, others require ASCD membership.

- Minecraft Chemistry Update for Education Edition

<https://education.minecraft.net/introducing-chemistry-update-for-minecraft-education-edition/> - Minecraft has just released a series of chemistry learning tools embedded in its platform. The

Element Constructor allows you to create elements based on their atomic structure with sliders to choose the number of protons, neutrons and electrons. With the Compound Creator, you can add elements to the grid and the resulting compound will appear for you to use in Minecraft. Create over 30 compounds with this tool – from luminol to hydrogen peroxide. The Lab Table allows you to create Minecraft items by combining elements and compounds in a grid. For example, adding water and sodium hypochlorite makes bleach. The Material Reducer reduces a block to its component elements, providing a useful way to explore the elements that make up our environment.

- New NOAA Resource - *Beat the Uncertainty. Planning Climate Resilient Cities.*

<https://games.noaa.gov/beat-the-uncertainty/welcome.html> - NOAA has posted the files for a great new classroom or teacher workshop resource. This simulation has been field-tested with many education groups and is a great way to start conversations about making cities more resilient to climate impacts.

- Fun Stuff! - Music Video on the Neuroscience of a Crush (and Love)

https://www.youtube.com/watch?time_continue=156&v=VbFchFe1Nfo - Great video from NPR's Skunk Bear. The phenomenon of the "crush"!

Student Opportunities

- Aldo Leopold Essay Writing Contest – Grades 9-12

aldoleopold.org/contest - split into categories of grades 9-10 and 11-12, this essay contest asks students to write an essay in under 500 words on the topic of, "Aldo Leopold loved the land and its wildness. Describe a place in nature that you love. Why is it wild to you?" Essays are due March 23.

- WSST Essay Writing Contest - Open to all grades

<http://www.wsst.org/science-matters> - Essays are due March 23. Any teacher can submit one essay from one of their students. The topic is, "Can you share a famous or local scientist whom you admire? Explain what they do and why you admire them." The winning essay in each category will receive a \$100 prize and publication in the WSST newsletter and website. The teacher of the winning submission will also receive a \$100 prize. Additional highly rated essays may be published to the WSST website at the discretion of the contest organizers. Winners will be announced April 20, 2018 in celebration of Earth Day.

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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

