



Hello Educators,

I hope you found time to relax and reconnect this summer, and now feel good (or better!) about the upcoming school year.

Below are a few science education resources and opportunities I've heard about lately. Please, let me know if I can help in your school/district with some resources or a facilitated discussion, like a brief dig into curriculum or assessment ideas.

Cheers,
Kevin

Learning Opportunities

- [2022-23 Virtual Book Study on Climate Change](#) - starts mid-October
- [Presidential Award \(PAEMST\)](#) - nominations/applications open, grades 7-12
- [American Chemical Society](#) - HS Chemistry Teacher Award
- [Science and Shipwrecks Shipboard Workshop](#) - apply by Aug 31, sails Sept 16-17
- [National Academies Meeting](#) - New Report on PK-5 Science and Engineering, Sept 15
- [STEM Forward's sySTEMnow Conference](#) - Oct 26

Resources

- [ASCD Instructional Leadership for Science Practices](#) - new book
- [Grants for Educators!](#)
- [Equity](#) - HRL Framework from Dr. Gholdy Muhammad
- [Teaching Channel Podcast](#) - Three Things Administrators Should Know about Science Learning
- [Research](#) - Literacy Learning Supported by Science and Social Studies at Elementary

Student Opportunities

- [StellarXplorers Competition](#) - grades 6-12
- [Meaningful, Connected Student Projects](#)

Details

Learning Opportunities

- 2022-23 Virtual Book Study on Climate Change - starts mid-October

<https://forms.gle/NAEFrhiyY3vZ8Mw68> - Join us for the 8th annual virtual book study, focusing on climate change and using the NSTA book, [Understanding Climate Change](#). We'll also use many other resources, including the [climate change workbook](#) from the Bassam Shakashiri group. Notably, climate change has been [talked about and predicted](#) for over a century! The WSST Elementary Committee will be doing a book study too on helping students with asking good scientific questions, using the book [Make Just One Change](#). Stay tuned for those details.

- Presidential Award (PAEMST) - nominations/applications open, grades 7-12

<https://www.paemst.org/> - Nominate yourself or another great grades 7-12 teacher in science, mathematics, computer science, or STEM more broadly. This is the highest STEM subject teacher award coordinated by the federal govt. There is a \$10k award and DC trip for two Wisconsin awardees. Nominations should be sent in this fall, sooner is better. Past applicants have noted it as a great professional learning opportunity.

- American Chemical Society - HS Chemistry Teacher Award

<https://www.acs.org/content/acs/en/funding/awards/james-bryant-conant-award-in-high-school-chemistry-teaching.html> - nominate a high school chemistry teacher for this prestigious award from ACS! Nominations due by Nov 1st.

- Science and Shipwrecks Shipboard Workshop - apply by Aug 31, sails Sept 16-17

<https://forms.gle/LQn4J9TMTYChZKsY7> - with funding from the Center for Great Lakes Literacy, the Wisconsin Sea Grant group is excited to offer an opportunity for professional learning on the science and maritime heritage of Lake Michigan. Workshop participants will take a deep dive into the ecology of Lake Michigan and have the opportunity to explore maritime history by visiting a shipwreck, all aboard the R/V Neeskay. The workshop will include one day onboard and one day on land. It takes place

Friday 9/16/2022 and Saturday 9/17/2022 at the UW Milwaukee School of Freshwater Sciences, 600 E Greenfield Ave. It is free, with a stipend available to cover travel and a sub. Open to any formal or informal educator. Questions can be sent to Anne Moser - annekmoser@aqu.wisc.edu

- National Academies Meeting - New Report on PK-5 Science and Engineering, Sept 15

<https://www.eventbrite.com/e/public-event-report-on-science-engineering-in-preschool-elem-grades-tickets-381700665967> Authors of the report, researchers, and practitioners will be explaining findings and implications for PK-5 science programs. All free and virtual, from 8am to 2pm CT on Sept 15.

- STEM Forward's sySTEMnow Conference - Oct 26
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<https://www.stemforward.org/systemnow-conference> - dig into STEM ideas with partners from across the state in this annual Milwaukee conference. In-person this year!

Resources

- ASCD Instructional Leadership for Science Practices - new book

<https://www.ascd.org/books/the-instructional-leaders-guide-to-implementing-k-8-science-practices?variant=122008> - This book supports the need for science specific supervision and support. The authors provide vignettes and examples of the science practices in use, advice on observing science classrooms, concrete look-fors, and guidance on fostering ongoing teacher learning. They also offer a rich compendium of research- and evidence-based resources, including sample lessons, FAQs, and more than a dozen downloadable tools to facilitate classroom observation, feedback sessions, and professional development. It supplements the great [Science Practices Leadership website](#).

- Grants for Educators!

WSST grants - are you a member? - general grants <https://www.wsst.org/grants> due Dec 1 and Back-to-School special grants - <https://www.wsst.org/special-grants> - due Aug 21. Toshiba America Foundation grant, due Sept 1 - <http://www.toshiba.com/taf/612.jsp> and several options on this page - <https://stemeducationworks.com/grants/> including WI specific opportunities.

- Equity - HRL Framework from Dr. Ghody Muhammad

<https://www.kqed.org/mindshift/57137/how-historically-responsive-literacy-can-make-learning-more-relevant-to-students> - the Historically Responsive Literacy (HRL) Framework from Dr. Ghody Muhammad is a great equity framework for all areas of student learning. It focuses on their skills, intellect, identity, criticality, and joy. I especially like the joy part!

- Teaching Channel Podcast - Three Things Administrators Should Know about Science Learning

<https://www.teachingchannel.com/podcast> - Helpful podcast on Three Things Administrators Should Know about Science Teaching, from The Science Lady, Kathy Renfrew. Go down to episode 57 (currently episode 58 is mislabeled, so be careful of that).

- Research - Literacy Learning Supported by Science and Social Studies at Elementary

<https://www.tandfonline.com/doi/abs/10.1080/10888438.2021.1954005> - Research continues to suggest that literacy learning benefits from solid content understanding in science and social studies, particularly beginning in elementary school. Looking at the stagnant literacy scores across Wisconsin provides evidence that practice needs to change!

Student Opportunities

- StellarXplorers Competition
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www.stellarxplorers.org/competition - Team registrations for our ninth season of competition - StellarXplorers IX - are being accepted through October 17, 2022. Open to students in grades 6-12, teams must solve orbit planning, satellite component, and launch vehicle selection scenarios presented in a series of online competition rounds. Each team requires an adult leader (typically a teacher) and 2-6 students. Competition rounds are scheduled to begin in late October, and all teams are guaranteed three rounds of participation. If you're interested in learning more (schedule, cost, team composition, registration process, etc.), visit the website and/or contact Rebecca Dalton rdalton@stellarxplorers.org

- Meaningful, Connected Student Projects

<https://dpi.wi.gov/science/science-fairs/opportunities> - As you're planning for the coming year, how might a long-term project fit into your instruction? An anchor project linked to the local community and student interests is a great way to engage students in real scientific endeavors. It could be focused on water (and connect to [state inquiry project](#) w/ cool resources like this interactive MKE area map - <https://refloh2o.com/milwaukee-community-map>).

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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