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Hello Science Education Leaders,

Another school year moving into the finishing stretch -- I hope you find joy in these last few weeks with your students! Please, let me know if I can help this summer with some resources, a facilitated virtual discussion, a workshop, etc.

Congratulations to Brian Collins, Unity High School science teacher, for being one of the Wisconsin Teachers of the Year 2023! [Read an article here.](#)

Below are a few science education resources 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

- [Teaching Contentious Topics](#) - Workshop and Virtual Connections - July
- [TENFEE Workshop for Teacher Educators](#) - May 31, June 1 w/ stipend
- [OpenSciEd workshop](#) in Lake Geneva w/ Activate Science - June 19
- [OpenSciEd High School Institute](#) - Chicago Area - June 26-29
- [WSELA](#) - Oct 17 in Wisconsin Rapids at Lincoln HS
- [BTC Institute](#) - Summer Biotech PD w/ stipends

Resources

- [Wisconsin Science Festival and Wisconsin Science Week](#) - Oct 16-22
- [Climate Literacy and Energy Awareness Network](#) (CLEAN)
- [Creativity in Science Class](#) - a new blog post
- [Computational Thinking Resources](#) - grades K-8
- [Engineering is Elementary](#) - New NASA resources - grades 3-8
- [Phenomenon](#) - Oceans are heating up!

Student Opportunities

- [Quantum Computing Summer Learning for Students](#) @ UW-Stout
 - [Students Doing Science!](#)
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- [State Water Inquiry Project](#) - next year is the final one for this theme!
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Details

Learning Opportunities

- Teaching Contentious Topics - Workshop and Virtual Series - July 11, 24, 25

Save the dates for an interdisciplinary workshop from DPI on teaching contentious topics. We'll start on July 11th with a book talk from Joe Schmidt, co-author of [Civil Discourse](#). That book will also help frame a full day workshop on either July 24 in Madison or July 25 in Stevens Point. We'll follow that up with fall virtual sessions with other guest speakers. Mark that date, as registration and further details will be out soon! Cost will be only \$30 and includes the book.

- TENFEE Workshop for Teacher Educators - May 31, June 1 w/ stipend

[Registration](#) We have an exciting program this year focused on infusing inclusive, equitable, and culturally relevant pedagogy in educator preparation programs while also integrating environmental education requirements. Join a teacher educator network, receive a copy of a Dr. Ghody Muhammad book of your choice, and receive a \$250 stipend for attending and submitting a related project. May 31 has an optional pre-workshop on exploring climate justice from 1 to 5pm. Stay for a free dinner and overnight lodging before day two focusing on equity across subject areas. Location is Upham Woods near Wisconsin Dells. Registration will likely be closing today, May 15th. [Register online](#) or contact Becca (becca.franzen@uwsp.edu).

- OpenSciEd workshop in Lake Geneva w/ Activate Science - June 19

FREE [Professional Learning](#) - OpenSciEd Workshop from Activate Learning on Monday, June 19th from 8:30am - 3pm at The Abbey Resort, Lake Geneva. This will be an exciting day of professional learning that will introduce teachers and administrators to OpenSciEd. Participants will engage with the instructional routines embedded throughout the OpenSciEd units. These routines align with the shifts called for by the Next Generation Science Standards to promote 3-Dimensional teaching and learning experiences for all. It will be middle school focused. Continental Breakfast and Lunch Included! [Registration link](#)

- OpenSciEd High School Institute - Chicago Area - June 26-29

go.illinois.edu/OpenSciEdHS - Univ of Illinois is hosting a full high school OpenSciEd Launch for Biology, Chemistry, and Physics. Join fellow educators to figure out how to implement the NGSS equitably with free, open access, high-quality materials with expert facilitators from OpenSciEd's professional learning team. Early Bird pricing ended May 1, so it will cost \$300. Registration is due today, May 15th (though you might be able to get an extension).

- WSELA - Oct 17 in Wisconsin Rapids at Lincoln HS

The Wisconsin Science Education Leadership Association (WSELA) will next be meeting on October 17th at Lincoln HS in Wisconsin Rapids. Get it on your calendar now! We welcome for agenda suggestions - send them to me (Kevin). Cost is free for new attendees and \$20 for

returning people. Everyone is welcome to this great opportunity to network with other district educators on their science programs.

- BTC Institute Summer Biotech PD w/ stipends

<https://www.btc.org/k-12-programs/programs-for-teachers/> - 1) Biotechnology: The Basics (June 26-30, 2023; 9:00am – 4:00pm), introduce teachers to the fundamentals of biotechnology. Topics typically covered include: micropipetting, DNA structure & function, nucleic acid extraction, restriction enzyme digestion, PCR, genetic transformation, NASA connections, etc. 2) Biotechnology: Beyond the Basics (July 10-14, 2023; 9:00am – 4:00pm) - This laboratory-based course is designed for teachers to learn and practice advanced biotechnology techniques used in molecular biology. Topics typically covered include: protein purification, CRISPR, DNA sequencing, STR analysis, biomanufacturing, NASA connections, and more. Enrollment is limited to 16 participants for both courses with a \$625 stipend for eligible educators after completion of a project.

Resources

- Wisconsin Science Festival and Wisconsin Science Week - Oct 16-22

<https://www.wisconsinsciencefest.org/resources/> - Once again this year, we'll have a government proclaimed Wisconsin Science Week to go along with the Wisconsin Science Festival. I encourage you to support or host an event at your school or in your community. [Hosting information here](#). Perhaps a community science night where your student display some of what they've been learning and doing?

- Climate Literacy and Energy Awareness Network (CLEAN)

Check out what's new from the Climate Literacy and Energy Awareness Network (CLEAN)!: Spanish translations of climate information pages, resources for [mental health and social-emotional learning aspects](#) of teaching climate change, and new resources in our collection. The CLEAN collection is a free online database of 850+ free, peer-reviewed, and ready-to-use educational resources for teaching middle, high school and undergraduate students about climate and energy. The [collection](#) contains activities, demonstrations, experiments, visualizations, and videos—everything you need to create data-rich and authentic lessons on climate and energy. CLEAN also provides [pedagogical support](#) for teaching climate and energy topics through background knowledge web pages, a [professional development toolkit](#), and a [professional learning community](#). Our toolkit includes professional development such as unit development guides, webinars, newsletters, elementary teaching resources, culturally relevant teaching resources that weave climate literacy principles with regional Indigenous Knowledge, and resources for working with resistant audiences. CLEAN is a NOAA, NASA, DOE, and NSF funded and university-supported project focused on climate and energy education.

- Creativity in Science Class - a new blog post

<https://wisdpiscience.blogspot.com/> - How do you support students in expressing their creativity in your science class? I share a few ideas in this blog, and I'm not talking about art projects!

- Computational Thinking Resources, K-8

<https://sites.google.com/g.gcpsk12.org/computationalthinking/home?authuser=0> - this page will support your understanding of the NGSS "computational thinking" practice. There are a couple useful videos, some lessons and games, and articles. I got some ideas as I dug through it!

- Engineering is Elementary - New NASA resources - grades 3-8

<https://eie.org/nasa-partnership> - EiE puts out high-quality materials and just released a few that they created with NASA. These grades 3-8 lessons and activities align to the NGSS and focus on space exploration (like Mars!). There is an engineering and STEM slant to these materials.

- Phenomenon - Oceans are heating up!

<https://www.cnn.com/2023/05/05/world/ocean-surface-temperature-heat-record-climate-intl/index.html> - This article was an interesting read about how the temperatures of the ocean at the surface continue to break records. We need your students' creative thinking!

Student Opportunities

- Quantum Computing Summer Learning for Students @ UW-Stout

<https://www.uwstout.edu/outreach-engagement/youth-camps-programs/summer-steam-experience> - Instructors at UW-Stout are working to bringing quantum computing and quantum cryptography to high school students. We are looking to create professional development opportunities for high school instructors for Summer 2023 and will have more information in the future. We currently have opportunities for high school students to learn about quantum computing and encryption during the week-long summer experience from July 9-13 on several topics, including Unhackable Quantum Codes. We will explore what data encryption currently looks like, how quantum computers will be able to crack the encryption used on the internet, and how quantum systems can be used to create unhackable quantum codes. Please share this information with any of your students who might be interested.

- Students Doing Science!

It's been great this past month to see and hear about students doing science. I enjoyed the [MPS STEM Fair](#), heard about some fabulous work in Beloit where high school students won top prizes at the GLOBE Midwest Student Research Symposium, and saw some great scientist-to-student interactions at the Madison STEAM day at UW-Madison. I also hope to be joining a group in Janesville tonight for their Student Showcase! What awesome work have your students been doing? I'd love to see and share it.

- State Water Inquiry Project - ongoing

<https://dpi.wi.gov/science/water> - this ongoing project can engage students in meaningful, local phenomena, and give them an opportunity to make a difference in their communities.

Through the GIS platform, you can share data and information on what you're doing with other across the state.

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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