



Education
& Outreach

NEWSLETTER

AUG
2022

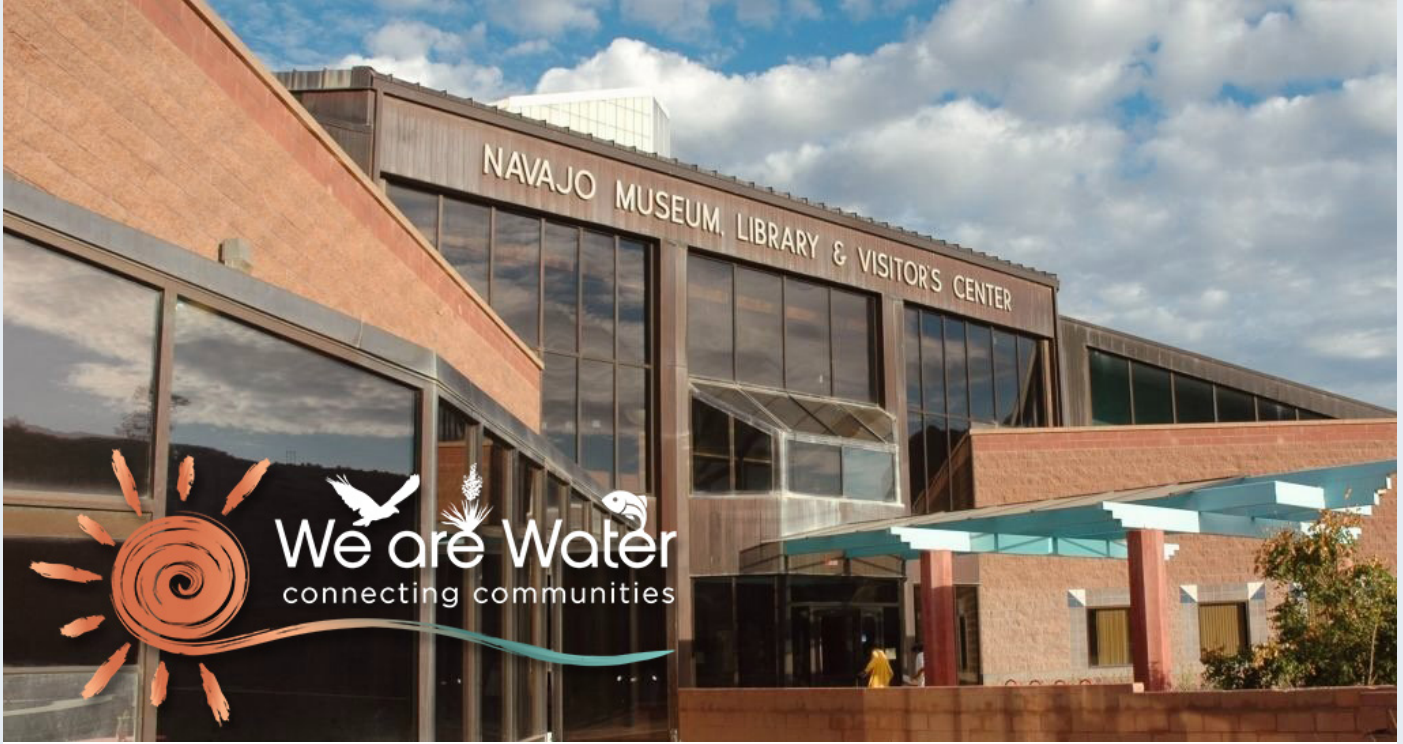
BACK TO
SCHOOL!



August 2022 - Back to School Issue *Inside This Issue*

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We are Water Traveling Exhibit Opening Day Celebration at Navajo Nation Library and Museum



On August 5, the [We are Water](#) traveling exhibition opened their doors at Navajo Nation Library and Museum in Window Rock, AZ. The interactive, hands-on water exhibit will be in Window Rock from August through the end of October 2022.



Come check out the interactive exhibits and hands-on activities that are fun and educational and learn about water!

Learn more about the exhibit

If you live in or are from the Four Corners Region, submit your own reflection about water for a chance to be featured in the We are Water exhibit!

Connect with us on social media to join the online community, listen to community stories, explore our learning resources, and get exhibit updates!

Submit your own reflection

Connect with us on social media

Science Show & Share Series



McMurdo Speaker Series: Antarctica, Space, Lasers (Oh my!)

Travel virtually to Antarctica with your students and meet live with our [special fall series](#). Four live sessions from McMurdo research station in the heart of Antarctica facilitated by researcher [Dr. Xinzhao Chu and her graduate students](#). Throughout the webinars your students will learn about polar science topics such as the upper atmosphere, space weather, seasons in Antarctica, and what it's like to live at the McMurdo station. Students will also be able to chat live with scientists at the end of the world. Classrooms can be live on camera with the scientists to ask their questions. These events are also open to the public and will be interesting for all ages middle school and up. Register on the event pages today for the link! Co-hosted by [CIRES Education & Outreach](#) and [Exploring by the Seat of your Pants](#).


SCIENCE
Show & Share

Connect and engage with scientists from CIRES

- September 20 - Introduction to the Upper Atmosphere
- October 11 - Introduction to Space Weather
- October 18 - A Day in the Life at McMurdo
- November 8 - Seasons in the Arctic

Register for one or all four webinars

GeoMagnetism Data Collection Challenge

You and your students can contribute to an international effort to monitor the effects of space weather on our planet. Join us for our GeoMag Challenge kick-off event during Earth Science Week (October 10th-15th), when we will host a data collection challenge from scientists to improve research on how Earth's geomagnetic field changes in response to space weather. We will have live demonstrations of how to use CrowdMag, a simple, phone-based magnetic field measuring app. You can use the app to engage your students in experiments on magnetic fields while also supporting ongoing research! We offer a full package of lesson plans, recorded background videos, tutorials and information about the challenge [on our webpage](#).

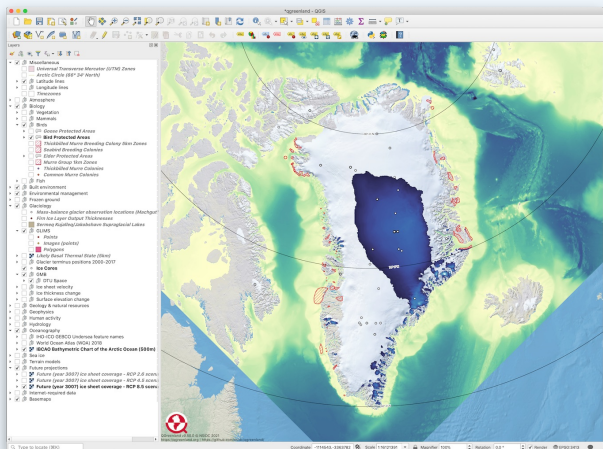
Learn more about GeoMagnetism



Opportunities for Educators

Beginner QGIS Workshop for Educators

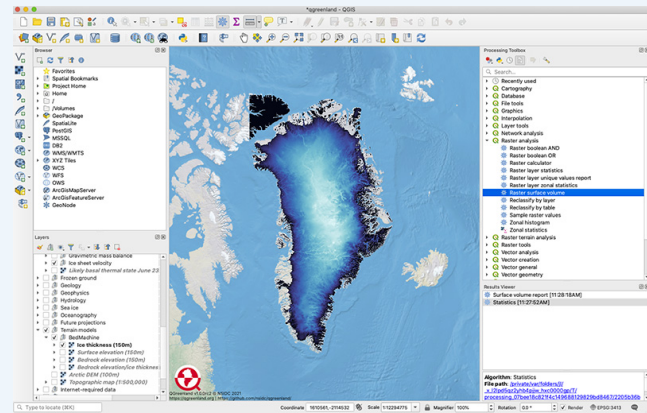
Curious to bring GIS into your classroom? We will show you how! [QGreenland](#) is offering a version of our popular beginner workshop tailored just for educators. This workshop is designed for people brand new to GIS who are interested in using the open-source geospatial data platform QGIS with their students. You will leave with an understanding of ways to introduce GIS to your students and curriculum materials to help you do it! The workshop will run September 8th, from 2-6pm MDT. The workshop is open to both formal and informal educators, with continuing education/graduate credit available. [For more information contact Alyse Thurber](#).



Looking for Beta Testers (stipends available)

New Sea-level Rise Curriculum

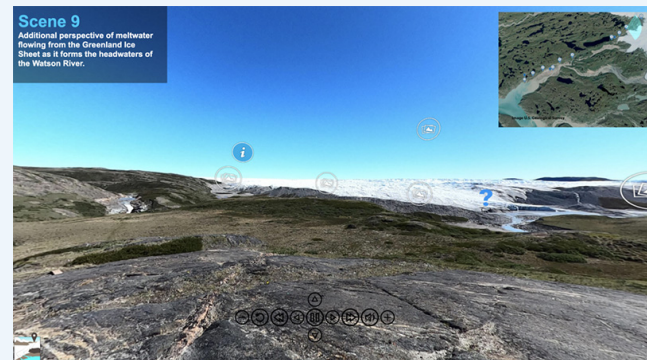
This new curriculum brings GIS and Greenland into the classroom to investigate the importance of the Greenland Ice Sheet on a global scale. As students explore the driving question ‘How is the Greenland Ice Sheet changing?’ they utilize a video tutorial series to develop GIS skills that will enable them to analyze glacial retreats and calculate the amount of global sea-level rise that can be attributed to the melting of the Greenland Ice Sheet. Finally, the curriculum addresses misconceptions about regional sea level rise as students analyze risk to their chosen community.



We are currently looking for undergraduate, community college, or advanced high school curriculum testers who are interested to bring GIS into their classrooms and engage students in authentic analysis. [Learn more about these materials and sign up.](#)

New Polar Field Data Curriculum

The curriculum consists of two modules with 4-5 units each and combines real polar field data from Greenland with innovative teaching methods to strengthen students' knowledge of polar science and build student connections to polar places. The units contain a series of 360-degree interactive environments, field images, maps, geospatial data, and videos to immerse students in the place and dive into questions about timescales, seasonal and year-to-year change, and interconnected Earth system elements.



Learn more about these materials at [PolarPass](#) and [QGreenland](#). Sign up PolarPass@Colorado.EDU

CLEAN Network Summit

Accelerating Climate Capacity, Engagement, and Leadership Summit

Join us for the Accelerating Climate Capacity, Engagement, and Leadership Summit (ACCELS), convened by the CLEAN Network! For the first time, climate and energy literacy leaders will come together to share and learn, and to explore collaborations for the next year. Now is the time to come together to develop a learning and action network that can advance a shared vision and systemic change. Anyone who works in climate & energy education is invited to participate in this virtual Summit. The event will be held September 22 & 23, 2022, 1-5 pm ET. [Register here.](#)



12pm ET - 5pm ET
Thursday September 22nd
& Friday September 23rd

CLEAN has a new educator professional development & climate education events calendar on [our homepage](#) (at the bottom of the page). Check it out for opportunities to enhance your climate teaching!

Curriculum Highlight

Megadrought in the Colorado River Basin – 2-day MS/HS lesson

More than 40 million people across the western United States rely on water from the Colorado River Basin, a basin that is experiencing a decades-long drought (megadrought). In this [*Data Puzzle](#), students analyze and interpret a long-term record (1900-2021) of temperature and precipitation data from the region to construct an explanatory model from the driving question, “What is causing the megadrought in the Colorado River Basin?” and to identify strategies to reverse/reduce these drought conditions.



[*Data Puzzles](#) are a new resource that combine classroom-friendly datasets with Ambitious Science Teaching instructional practices to help students make sense of phenomena.

[Check out our full Data Puzzles collection here](#)

Research Experience for Community College Students Program



The Research Experience for Community College Students Program (RECCS) completed its eighth successful year. 15 students completed authentic research projects and presented their research in a poster session and oral presentation at the end of July. Read more about the program and some of the student projects: [From Oceans to the Atmosphere and Beyond: Community College Students Dive into Research at CIRES, CU Boulder](#)

Special thanks to all the research mentors that supported students this summer! Interested in being a

RECCS mentor next summer? Email reccs@colorado.edu and/or [visit our website](#) to find more information.

Interested in applying to the RECCS program? Please fill out this [brief interest survey](#)

Learn more about
RECCS



Congratulations to CIRES Education & Outreach for receiving Honorable Mention for the 2021/22 **President's Diversity, Equity and Inclusion award** at the University of Colorado.

Congratulations also to **Katya Schloesser**, for **receiving a grant** to fund "Bouncing Forward: Supporting Boulder Valley School District Classrooms to Overcome Grief through Action". Katya recently received this grant from a partnership between the Office for Outreach and Engagement, CU's Research and Innovation Office (RIO) and the Natural Hazards Center to support community-engaged scholarship connected to the Marshall Fire.

CIRES E&O is at the **CAEE conference** at Snow Mountain Ranch September 9 and 10. Come introduce yourself and attend our HEART Force session on September 9 at 1:30 PM.

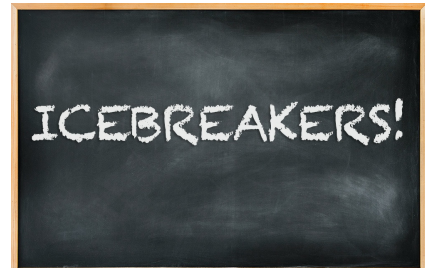
Back to School Icebreakers Worth Trying

First days of school are usually filled with get-to-know-you activities. You either love or dread the icebreaker. We polled our staff for their favorite ways to break the ice:

I fully lean into the awkwardness and had my students play improv games on the first day. My favorite was "Where is celery?!" - Alyse

If you could replace one limb with anything what would it be? - Daniela

If you could be any animal, what would you be and why? - Alicia



Upcoming E&O Events



Bouncing Forward from the Marshall Fire
September 7, 4:00-6:00 PM MT

Calling BVSD Secondary Science Teachers : Join us to learn about supportive curriculum for those affected by the Marshall or NCAR fires

For BVSD teachers only

[Link to register or learn more](#)

**McMurdo Speaker Series: Antarctica, Space, Lasers (Oh my!)
Intro to Upper Atmosphere**



September 20, 1:00-1:45 PM ET

Join McMurdo scientist, Yingfei Chen, from McMurdo Antarctica for a 10-15 minute lesson on an Introduction to the Upper Atmosphere followed by a Q&A

[Link to register or learn more](#)



Accelerating Climate Capacity, Engagement, and Leadership Summit (ACCELS)

September 22 - 23

For the first time, climate and energy literacy leaders will come together to share and learn and explore collaborations for the next year

[Link to register or learn more](#)



GeoMag Challenge kick-off

October 10-15

Join us to learn about using the CrowdMag app to conduct experiments and support ongoing research! Learn more about Earth's magnetic field and why it's vital for life on Earth.

[Link to register or learn more](#)



McMurdo Speaker Series: Antarctica, Space & Lasers (Oh my!)

Intro to Space Weather

October 11, 1:00-1:45 PM ET

Join McMurdo scientist, Arunima Prakash, LIVE from McMurdo, Antarctica for a 10-15 minute lesson on an Introduction to space weather followed by a Q&A

[Link to register or learn more](#)



McMurdo Speaker Series: Antarctica, Space & Lasers (Oh my!)

A Day in the Life at McMurdo

October 18, 1:00-1:45 PM ET

Join McMurdo scientist, Jackson Jandreau, from McMurdo Antarctica for a 10-15 minute lesson on a day at McMurdo Station in Antarctica, followed by a Q&A

[Link to register or learn more](#)



McMurdo Speaker Series: Antarctica, Space & Lasers (Oh my!)

Seasons in the Arctic

November 8, 1:00-1:45 PM ET

Join McMurdo scientist, Ian Geraghty, from McMurdo Antarctica for a 10-15 minute lesson on Seasons in the Arctic, followed by a Q&A

[Link to register or learn more](#)

Other Ongoing Events



Water in the Western US

A self-paced, free, online course exploring water and climate in the western United States

[Link to register or learn more](#)



Frozen in the Ice: Exploring the Arctic

A self-paced, free, online course "Frozen in the Ice: Exploring the Arctic" is about the extraordinary MOSAic Arctic research mission that has frozen an icebreaker into the Arctic Ocean for 13 months

[Link to register or learn more](#)



Drifting North Polar Planetarium Program - Field Trip

Bring your students to Fiske or let Fiske come to your school in this immersive polar field trip program. Watch the full dome film and participate in activities to learn what it's like to be a polar scientist in the Arctic.

[Link to register or learn more](#)

**Keep up to date on opportunities & news from CIRES
E&O**

