



Education  
& Outreach

# NEWSLETTER

APR  
2022

Special Issue

EARTH WEEK

2022



April 2022 - Earth Day Issue  
*Inside This Issue*

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## The MOSAiC Program



Polar bear mother and cub by Lianna Nixon. Alfred-Wegner-Institute

The Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAiC) was an international research expedition to study the physical, chemical, and biological processes that couple the Arctic atmosphere, sea ice, ocean, and ecosystem. More than 500 participants from over 16 nations spent a year in the Arctic ice collecting important data on the Arctic climate system. From September 2019 through October 2020, the icebreaker RV Polarstern drifted across the central Arctic near the North Pole frozen in sea ice during one of the most extensive Arctic research expeditions ever conducted.

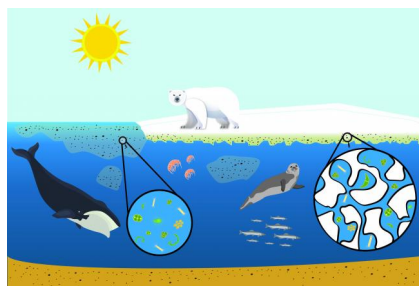
[View the MOSAiC Program Here](#)

## Program Highlights



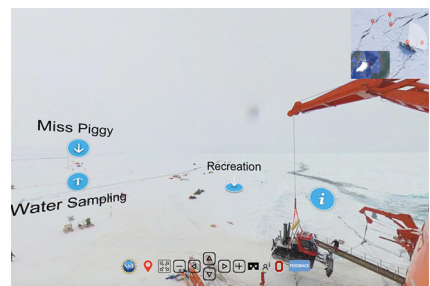
### [Drifting North Polar Planetarium Field Trip](#)

Bring your students aboard the polarstern in this immersive field trip experience featuring one of the full-dome Drifting North films paired with planetarium and classroom activities.



### [A Changing Arctic Ecosystem](#)

This 8-lesson middle/high school unit is centered around the anchoring phenomenon of a changing Arctic ecosystem, with each lesson time to NGSS Life Science Standards. **Free**



### [Virtual Experiences](#)

Experience what it's like to be an Arctic explorer with these 360-degree virtual expeditions and experiences!



## Deep Insights Into the Arctic of Tomorrow

Two years ago, hundreds of international scientists set off on the one-year MOSAiC expedition, collecting unprecedented environmental datasets over a full annual cycle in the Central Arctic Ocean. Now, the team has published three overview articles on the MOSAiC atmosphere, snow and sea ice, and ocean in the journal *Elementa*, highlighting the importance of examining all components of the climate system together. These results present the most complete picture of the climate processes in the Central Arctic which is warming more than two times as fast as the rest of the planet - processes that affect weather and climate worldwide.

[Read more on  
CIRES](#)



Top: Building Met City; Bottom: Polar Bear Visit. Alfred-Wegener-Institut / Lianna Nixon

## CIRES Education & Outreach News

### PSECCO Launch

The Polar Science Early Career Community Office (PSECCO) is officially launched! PSECCO is a community-building and community-support organization for early career polar scientists. Its mission is to empower and elevate early-career scientists in the Polar Sciences, support a vibrant community, provide opportunities and resources, offer skill training and work together towards a more just, inclusive, diverse, equitable, and accessible polar science environment.



**PSECCO**

Polar Science Early  
Career Community Office

The office will be building partnerships and offering support to early-career organizations already doing great work, working to build community, and offering unique professional development and funding opportunities of its own. PSECCO will host its first two community meetings for polar early careers scientists and the wider polar community on May 3rd at 1 pm MT and on June 9th at 11 am MT.

[Learn more about  
PSECCO](#)



Aerial photo of Lower Curtis by Jason Kim

## **We are Water is on the road**

*We are Water: Connecting Communities*, a traveling exhibition about water in the Southwest, will kick off its tour in the Four Corners region at Aztec Public Library on May 6, 2022. Through the We are Water exhibition, community members of all ages can explore their shared watershed and local ecosystems, connect with neighbors through their common and unique experiences with water, share their memories and stories, and come together to imagine a future for water in their communities.







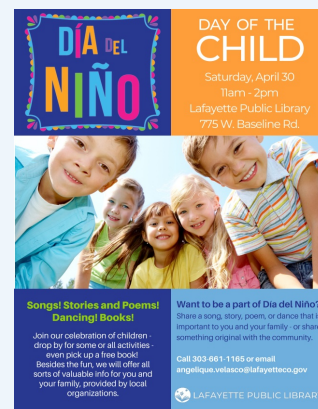
We are Water exhibit at Lafayette Public Library.

## Learn more about We are Water's Exhibit

## Outreach Opportunities for Scientists

The Lafayette Public Library is holding a Day of the Child event and resource fair on Saturday, April 30 from 11-2 pm. They are looking for volunteers to table the event. Education & Outreach can help you with the activity for the table if you are interested in participating. Contact [daniela.pennycook@colorado.edu](mailto:daniela.pennycook@colorado.edu) if you're interested.

If you are interested in volunteering for one-off outreach opportunities like tabling events and single-day outreach events please reach out to [daniela.pennycook@colorado.edu](mailto:daniela.pennycook@colorado.edu). We will add your name to our database and reach out when opportunities come up.



## Recent Publications

### Arctic Feedbacks: Not All Warming Is Equal by Jonathan Griffith and Margaret Kosick-Kingston

The Arctic is warming twice as fast as the global average (a phenomenon known as Arctic amplification) and due to a lack of observations, there is considerable uncertainty in climate models projecting the Arctic climate of the future (Hodson et al. 2012). The MOSAiC expedition's goal was to better understand the changing Arctic climate system by freezing a ship in sea ice where it would drift with the ice across the Arctic while scientists studied ocean, atmosphere, and sea ice



processes. This article describes a 15-day model-based inquiry (MBI) unit on Earth's systems that investigates the amplified warming in the Arctic (see Online Connections to view the [freely available "Arctic Feedbacks" unit](#)).

[Download PDF](#)

## Upcoming E&O Events



**Climate and Mental Health: Acknowledging Grief and Inspiring Hope**  
Speaker: Dr. Courtney Welton-Mitchell, Colorado School of Public Health  
April 19, 4:00-5:00 PM (MT)  
[Link to register or learn more](#)



**Polar Expeditions: From Past to Present**  
Classrooms and the public are invited to learn more about Endurance22 and MOSAiC and the historical expeditions that inspired them. Live Q&A!  
April 20, 10:00-11:00 AM (MT)  
[Link to register or learn more](#)



**Exploring hands-on, STEM-based energy activities for the classroom**  
April 26, 4:00 PM MT  
Speakers: Dana Haine, UNC-Chapel Hill Institute for the Environment & Andrea Gladden, East Burke Middle School  
[Link to register or learn more](#)



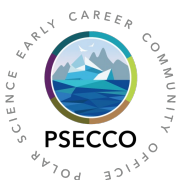
**Teaching About Climate and Energy in Communities That Might Not Want to Hear it**  
May 3, 4:00-4:40 PM MT  
Speakers: Karin Kirk, Geologist and Science Writer  
[Link to register or learn more](#)



**Polar Science Early Career (PSECCO) Community Meeting**  
May 3, 1:00-2:00 PM MDT  
The Polar Science Early Career Community Office (PSECCO) invites you to attend one of our first two virtual community meetings  
[Link to register or learn more](#)



**Atmospheric Science & Climate Modeling in the Gunnison Valley: Field Based Course**  
June 6-7 8:00 AM - 5:00 PM (MT)  
[Link to register or learn more](#)



**Polar Science Early Career (PSECCO) Community Meeting**  
June 9, 11:00 AM - 12:00 PM MDT  
The Polar Science Early Career Community Office (PSECCO) invites you to attend one of our first two virtual community meetings  
[Link to register or learn more](#)

**The Future of Forests at Rocky Mountain National Park**



June 14-16 - 3 days, 2 nights PD in the national park.

Engage with The Future of Forests unit and explore fire-affected areas across Rocky Mountain National Park

[Link to register or learn more](#)



Teacher Workshop - The future of Forests

July 13-14 - 2 days

Bring the NASA-supported "Future of Forests" curriculum into your classroom to explore patterns of landscape change following wildfires.

[Link to register or learn more](#)



MOSAiC Expedition Teacher Workshop - A Changing Arctic Ecosystem

July 27-28 - 2 days

Bring the unprecedented science and adventure of the 2019-2020 MOSAiC Arctic research expedition into your classroom!

[Link to register or learn more](#)

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

