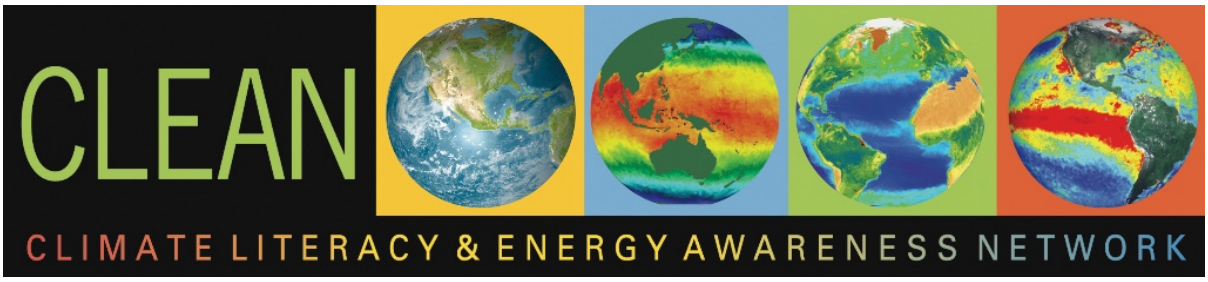


Arctic Feedbacks | Arctic Geography | MOSAiC Mondays | MOSAiC Expedition

CLEAN STEM Flash

A Timely Climate and Energy E-Learning Series to Use and Share

November 21, 2019

Topic: The Arctic Climate and the MOSAiC Expedition

In recent months, MOSAiC's ship, Polarstern, began its one-year Arctic expedition researching the Arctic, including investigations into the atmosphere, sea ice, ocean, ecosystems, and biochemistry. Use this newsletter to learn more about the Arctic climate and MOSAiC's teacher resources.

CLEAN Resource Feature

Video: Arctic Climate Feedbacks

This video discusses feedbacks in the Arctic climate system. These feedbacks are related to Arctic sea ice, the ocean, and the clouds. The video delves into the concept of albedo and negative/positive feedback loops present in the climate system.

Video length: 4:53 min
Audience: High School, College

Browse CLEAN for more videos related to the Arctic.

This video was produced by

Education and Outreach. Graduate student Ariel Morrison and assistant professor Jen Kay explain the importance of surface albedo feedback on Arctic sea ice, and other possible feedback loops associated with seasonality and the albedo.

CLEAN Resource Feature

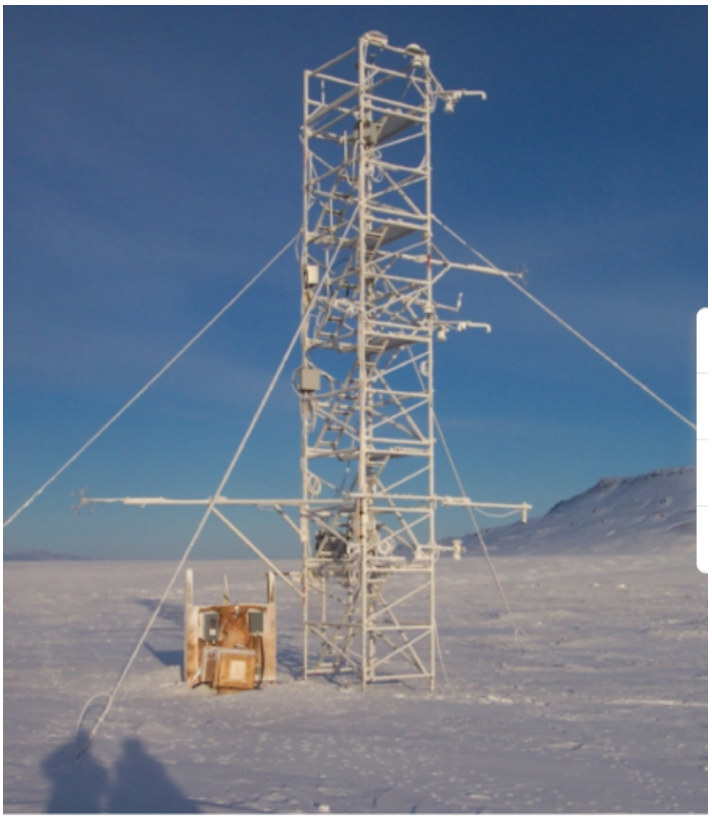
Activity: Arctic Climate Curriculum, Activity 1: Exploring the Arctic

In this activity, students learn about the geographical context of the Arctic. Students explore the types of vegetation, meteorological observations, and the people residing there.

Audience: Middle School, High School, College

Take a look at some more CLEAN resources focused on Arctic Lessons.

This lesson is the first of three in an Arctic climate curriculum. It uses visual representation of Arctic geography to teach students about meteorological parameters that were investigated by Arctic research teams. Students subsequently practice these same measurements with hands-on activities.
For further engagement, the other two lessons are Activity 2 and Activity 3.



More than 500 scientists from over 19 nations are spending a year in the Arctic ice to collect important data on the Arctic climate system. From September 2019 through October 2020, the icebreaker *RV Polarstern* will drift across the Arctic near the North Pole frozen in sea ice during one of the most extensive Arctic research expeditions ever conducted. Follow the MOSAiC (**M**ultidisciplinary drifting **O**bservatory for the **S**tudy of **A**rctic **C**limate) expedition in real time with MOSAiC Monday and get weekly behind-the-scenes access to interviews with scientists and crew members, expedition updates, Arctic discoveries, and more.

Sign up for MOSAiC Monday today!

This promotional video from MOSAiC gives a visual explanation of the extensive Arctic research expeditions and explains how you can connect students to these expeditions through weekly engagements. Students can track the expedition in real time on a map, graph Arctic oceanographic data from the ship, watch video interviews with scientists and crew members, and engage in short Arctic-related engagements that support your NGSS curriculum.

In the News: Scientists to Drift with Arctic Ice to Study Climate Change

This article reports on MOSAiC's research team and their climate change research expedition to the Arctic.

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CLEAN supports teaching and learning about climate and energy with 700+ free peer-reviewed, scientifically accurate, and classroom-ready resources.

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