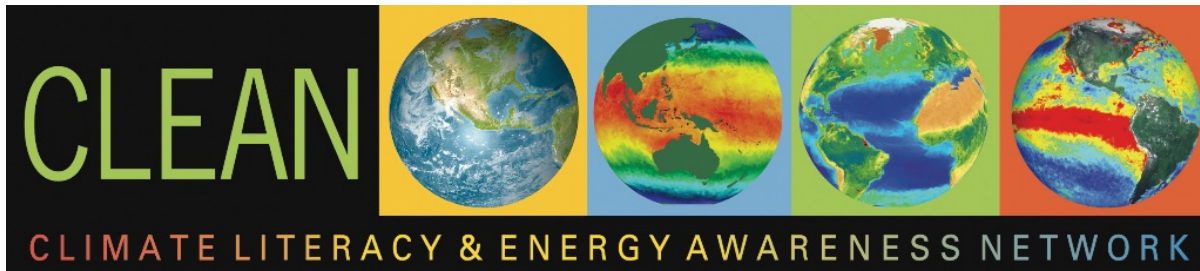
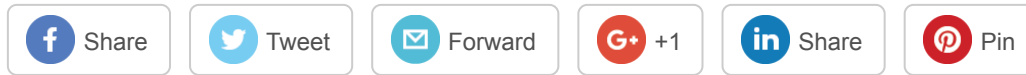


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[Sea Ice Extent Animation](#) | [Sea Ice Graphing Activity](#) | [2020 Sea Ice Minimum Second Lowest-Level on Record](#) | [Live Learning Lesson](#)

CLEAN STEM Flash

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

October 19th, 2020

Topic: Sea Ice and Climate Change

The Arctic experiences Arctic/Polar Amplification of global warming. This phenomenon causes the Arctic to warm at least twice as fast as the lower latitudes due to the warming climate. Summer sea ice extent in the Arctic is rapidly retreating over time. This greatly effects the people, animals, and ecosystems that rely on the sea ice. September is the month where the sea ice is at its minimum - after September it starts to grow again as the season changes. This past September the sea ice was recorded to have the second lowest extent in our recorded history. Check out the resources below and the news article that explores and discusses sea ice.

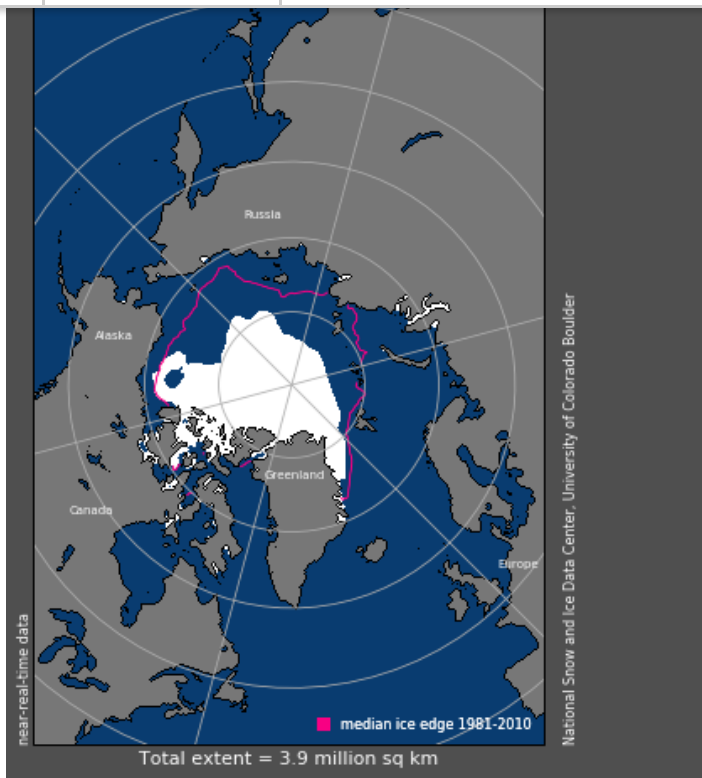
CLEAN Resource Feature

Visualization: [Sea Ice Index--Sea Ice Animation Tool](#)

This visualization allows students to view how sea ice has changed over time since 1978. This animation allows students to explore real data from the National Snow and Ice Data Center. The data is updated regularly so students will have access to present day data. Users can specify if they would like to look at sea ice extent, sea ice concentration, concentration anomalies, or concentration trends.

Audience: Middle School, High School, College Lower

Browse CLEAN for more visualizations on [Sea Ice Extent](#).

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different components of sea ice. It allows users to view the Northern and Southern hemisphere at different months of the year. The animation is simple and easy to use, however, educators that would like to go into greater detail have the option of downloading data and exploring it all in greater detail.

CLEAN Resource Feature

Learning Activity: [Graphing the Extent of Sea Ice in the Arctic and Antarctic](#)

In this activity, students learn about sea ice extent in both polar regions (Arctic and Antarctic). They start out by forming a hypothesis on the variability of sea ice, then test the hypothesis by graphing real data from a recent 3-year period and over a 25-year period, and finish with a discussion of their results and predictions. The short-term data allow students to explore to learn about seasonal variations while the longer-term data allow students to learn about longer-term trends.

Audience: Middle School, High School

Take a look at some more CLEAN resources focused on [Sea Ice](#).

This is a carefully designed activity that introduces students to the concept of seasonality of sea ice and its extent, both in terms of seasonal variations and longer-term trends. It address common misconceptions and allows students to get hands on experience using scientific data. It works well in conjunction with the sea ice visualization resource mentioned above.

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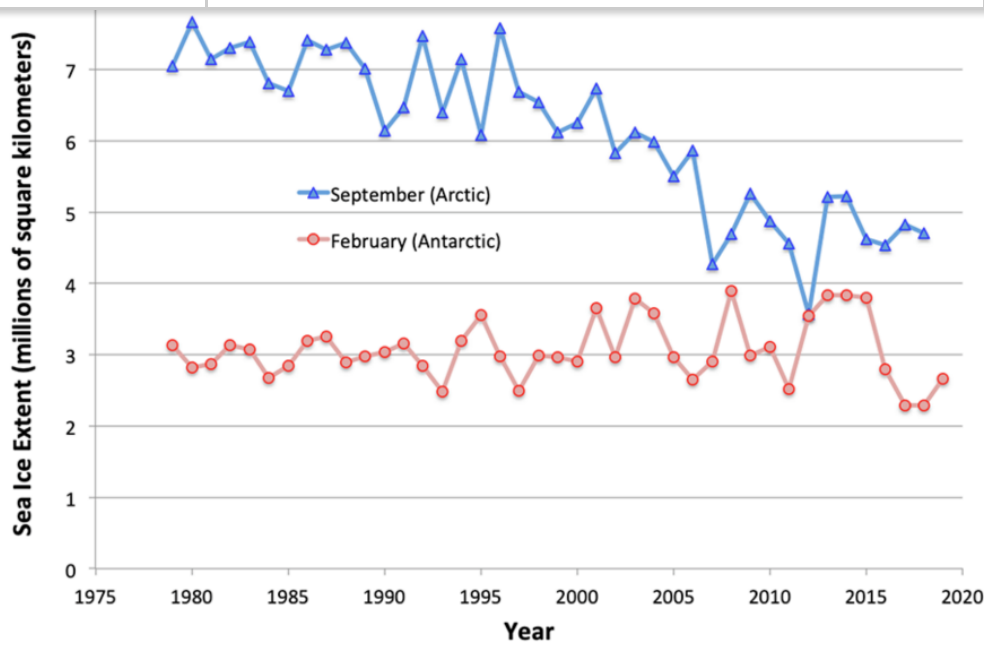


Figure 6: Annual Minimum Sea Ice Extent (all years)

In the News: [Arctic sea ice hits second-lowest level on record](#)

This article discusses the "new normal" of the Arctic sea ice. It briefly describes the history of the sea ice extent and what factors are contributing to its shrinkage. The ice is thinning, becoming more fragile, which then makes it more susceptible to the ever more common heat waves in the Arctic. Photo: NSIDC/Alice O'Connor



Fall 2020 Live Virtual Learning Session Supporting Elementary Climate Teaching

Looking for activities for your students to do from home? Have your K-8th grade students join CLEAN on October 21st at 3pm ET / 12pm PT for a virtual live lesson about melting ice, and its relation to climate. Students will get to experiment with ice during this fun, hands-on lesson, which only requires some ice, clear cups, as well as dark and light-colored plates if students have them!

Register [here](#) for the “The Science of Ice” live virtual lesson on Oct. 21st at 3pm

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