Connecting Students to Polar Science through Community Outreach

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The SILA Science Team is a group based out of the University of Florida studying the impacts of ice loss in Greenland. A critical component of the project is to engage audiences in Florida and across the US through civic engagement and outreach.

For the local component of the project, we partnered with pre-existing after school programs to teach students about the Arctic. Activities were created for elementary and middle school students.

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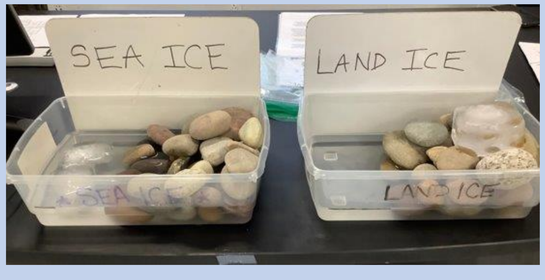
Objectives

- Develop age-appropriate activities to introduce Florida students to the Arctic
- Practice connecting research done in Greenland to local communities in order to increase community involvement
- Develop skills for communicating Arctic science to broad audiences

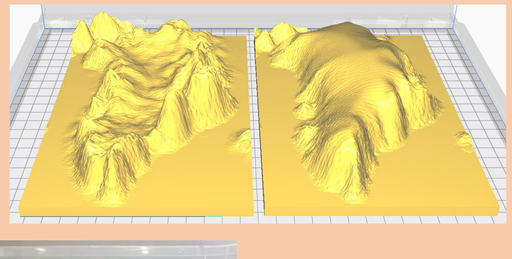
Impacts of different types of melt



- Containers were set up with ice in water (representing sea ice) and ice on top of rocks (representing land ice)
- Students made predictions about which would impact water levels the most

Greenland melting can affect sea-level rise

- Models of Greenland with and without ice were created using 3D printing
- These were used to demonstrate the global importance of the Greenland Ice Sheet



Step 1: Ice cream was added to the ice-free model.

Step 2: Melting was accelerated using a hair dryer.

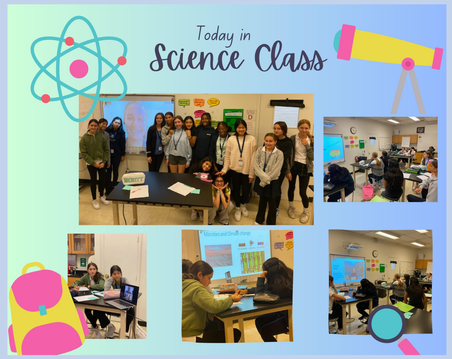
Step 3: Students observed the difference in water levels before and after melting.

There is life in ice!

- Students used microscopes to view different types of algae grown from Antarctic ice
- Antarctic ice was brought to classrooms for students to see and touch
- They learned how ice can store climate information

Virtual Visits with Skype a Scientist

- Visits consist of a brief presentation introducing arctic microbiology and showing fieldwork images (10min), followed by Q&A (20min)



Conclusions

- 10 local after-school or classroom visits were completed
- The activities developed have been used in additional community events
- 20+ virtual classroom visits were completed

Future Work

- Continuing virtual classroom visits with Skype a Scientist
- Improving virtual communication and developing virtual activities for classroom visits

Funding

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Learn more about our project!

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