How to Make Arctic Science Even Cooler and Other Lessons Learned from MOSAiC Expedition Outreach

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The 2019-2020 MOSAiC (Multidisciplinary Drifting Observatory for the Study of Arctic Climate) research expedition, one of the most extensive multinational Arctic expeditions ever conducted, is a testament to what can be achieved and overcome through teamwork, creative problem solving, perseverance, and curiosity.

It is important to integrate these key characteristics of science and scientists into classroom learning experiences. In our yearlong MOSAiC education and outreach efforts, we tried to bring the authentic nature of science to life for people of all ages. Here we share three of the main lessons we learned through our collaborative outreach efforts.

Lesson 1: Expeditions like MOSAiC can be compelling hooks for engaging students in science learning, especially with authentic connections to people and places.

Virtual Reality experiences



Classroom curricula

	CIRES & Outreach	About * Programs	Resources for Teachers	Events R	Research & Evaluation	c
Ference: / Arctic feedback not all learning result Arctic Feedbacks: Not All Warming Is Equal						
	The Arctic is warming twice as fas considerable uncertainty in climate Feedbacks curriculum.	The Arctic is warming twice as fast as the rest of the world and due to a lack of observations, there is considerable uncertainty in climate models projecting the Arctic climate of the future. Enter, the Arctic Feedbacks curriculum.				PROGRAMS he Polar Bear Project MOSAIC
	*Aretic Feedbacks ¹¹ is a midBalhigh school earth solince unit focuade on weather and climate as it reliates to Earth's system. The unit is centered around an anchoring phenomena known as Aretic amplification and consists of the unique lesson, earch tied to the NOSE Earth's systems standards. Students will gather evidence to model and explain Aretic amplification by engaging with 300 degree virtual expeditions, authentic real-inductic datacts, and app-based labo.				it relates ation and gather	LESSON TYPE Unit
					15,	TOPICS Polar Science
	Find the Unit Summary here Find the Instructional Calen	a dar here				GRADE LEVEL Middle School
	0					High School

Lesson 2: The nature and process of science is about more than the scientists and successes. This is important to teach in the classroom.

Direct connections to MOSAiC team members



Insight into life on board the ship

#askmosaic

Lesson 3: Variety is the spice of life for both science students and scientists.

Multiple modalities for outreach and learning → Greater accessibility and more engagement



