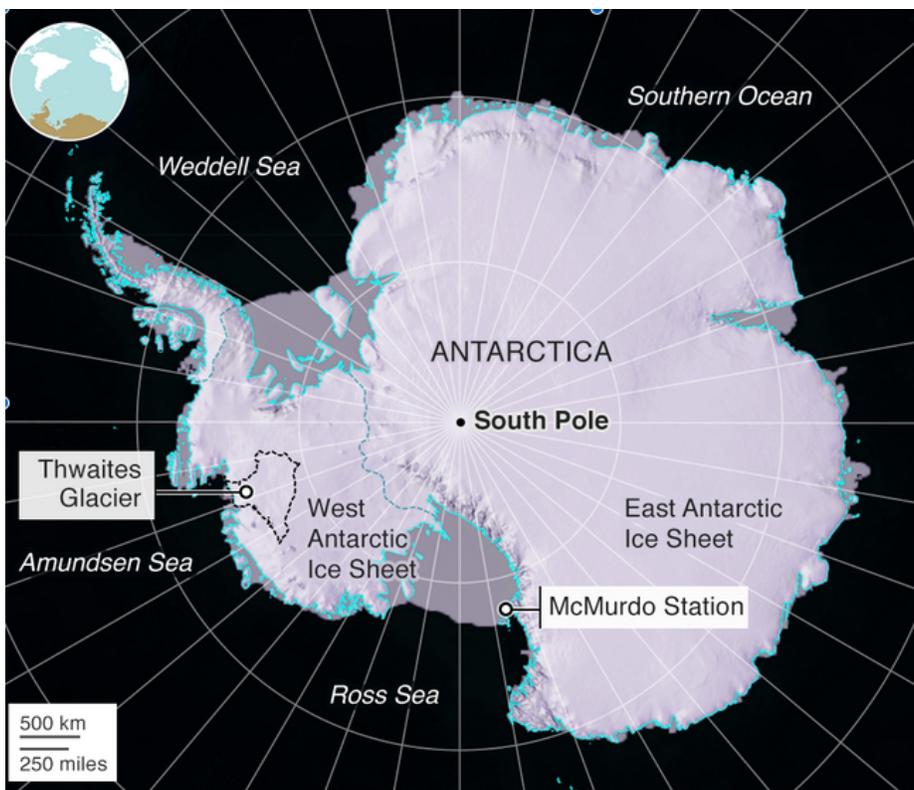


Background: On January 25, 2020, Sarah Slack left her STEM classroom in Brooklyn, New York and boarded the research vessel Nathaniel B. Palmer icebreaker in Punta Arenas, Chile. Ms. Slack had been selected by the PolarTREC program to participate in an expedition to the Thwaites Glacier, often called “The Most Dangerous Glacier on Earth.” For two months, Ms. Slack and 58 other people traveled on the ship from Chile to the Amundsen Sea off the southwest coast of Antarctica to study the seafloor in front of Thwaites in order to better understand the factors that are causing the rapid collapse of this Florida-sized glacier. In this presentation, she will talk about the highlights (The science! The ice! The penguins!) and the lowlights (The Drake Passage! Evidence of a changing climate! And again with the Drake!) of her adventure.



Antarctica is the Earth’s southernmost continent, home to four species of penguins (and another four kinds live on the surrounding islands) but no polar bears (those are found in the Arctic). Although the continent is larger than the United States, Antarctica’s human population is only 1000-2000 people (which varies with the season). Most of the continent is covered by ice, usually a mile or more thick. 80% of the world’s freshwater is contained in glaciers that cover the surface of Antarctica. If all of those glaciers were to melt, global sea level would increase by more than 200 feet!!

Before the Presentation - On a separate sheet of paper, create a KWL chart about Antarctica

There will be an opportunity to ask questions during the presentation, so pay special attention to that “Want to Know” section. What do you wonder about Antarctica? What would you like to ask about the journey to and from such a distant place? Are you curious about living on a ship with 60 people for 60 days? Can you imagine what it was like to be gone from my family, my students, my home, and my dogs? Think of questions about my preparation, my day-to-day life onboard, what I saw and experienced, and how I got home.

During the Presentation: Complete these questions as you listen to/watch the presentation

TOPIC			Name: _____
			Date: _____
KNOW	WANT TO KNOW	LEARNED	

1. What is one special feature of the Nathaniel B. Palmer icebreaker?
2. From the “Life onboard” photos, what is one thing we did to pass the time while we were traveling?
3. What is the “grounding line” of an iceberg?
4. Why is Sif Island important?
5. What is one type of data collected by the CTD?
6. Describe one thing you learned about krill.
7. What is one difference between the Kasten core and the megacore sediment samples?
8. What technology allows us to map the seafloor? Name a species of animal that evolved this technology millions of years before humans figured it out?
9. If you had to get a seal stuffed animal, which one would you want- a Weddell or an elephant seal?
10. Which type of seal is bigger? Which one can dive deeper?
11. Describe one thing you learned about Adelie penguins.
12. As Thwaites Glacier and other ice in Antarctica melts, why will sea level rise more in New York City than in Antarctica?