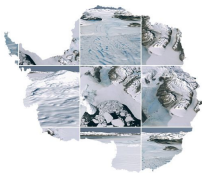


Resource Type: Card sort set
Grade Level: High School

Lesson 1: What do we already know, or think we know, about climate & Antarctica?

Definitions:

a: Frozen ocean water which forms, grows, and melts in the ocean. In contrast, icebergs, glaciers, and ice shelves float in the ocean but originate on land. For much of the year, this is often covered with snow.	**b:** This is any pond of liquid water on the top of a glacier. (Supra = on top of; glacial = land ice) Although these are ephemeral, they may reach kilometers in diameter and may be several meters deep. They may last for months or even decades at a time, but can empty in the course of hours.	**c:** This occurs when snow falls, is compressed, and becomes ice, which starts flowing under its own weight to be a glacier. Air bubbles are squeezed out and ice crystals enlarge and are pressed into a regular hexagon crystal structure, giving the ice its eponymous color.
d: A stream that flows over the surface of a glacier. (Supra = on top of; glacial = land ice).	**e:** This is a mass of glacial land ice extending more than 50,000 square kilometers (20,000 square miles). There are two of these on Earth today covering most of Greenland and Antarctica. Together, the Antarctic & Greenland ice sheets contain more than 99 percent of the freshwater ice on Earth.	**f:** Crystalline or granular snow, especially on the upper part of a glacier, where it has not yet been compressed into ice. Snow is considered to be this after it lasts through its first full melt season.
g: Anglicized from an Inuit word, this is an exposed, isolated peak of rock completely surrounded by glacial ice. They are sometimes called glacial islands.	**h:** Glacial ice that has formed from the accumulation and compaction of snow. Snow compresses to ice under its own weight and then, once it becomes thick enough, it begins to flow. This includes mountain glaciers around the world, as well as the ice sheets covering Greenland and Antarctica.	**i:** This is a thick suspended platform of ice that forms where a glacier or ice sheet flows down to a coastline and floats onto the ocean surface. These are only found in Antarctica, Greenland, Canada, and the Russian Arctic.

These materials were developed by Meghan Mosher, Penny Rodrick-Williams, Allen Pope, Anna Ruth Halberstadt, Luke Trusel, and Mahsa Moussavi in collaboration with CIRES Education & Outreach at CU Boulder. Funded by NSF OPP Award #1643715.

Photographs:

A:

Credit: Wikipedia

B:

Credit: Wikipedia

C:

Credit: Wikipedia

D:

Credit: Wikipedia

E:

Credit: NASA

F:

Credit: Johnny Kingslake

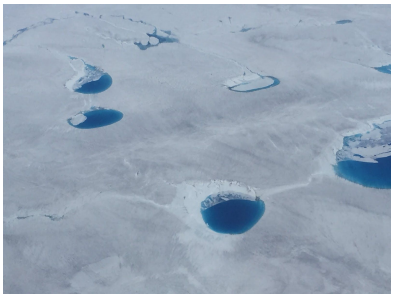
G:

Credit: Wikipedia

H:

Credit: Wikipedia

I:



Credit: Anna Ruth Halberstadt

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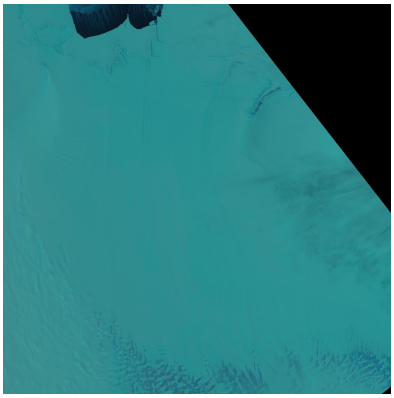
Satellite Images:

1:



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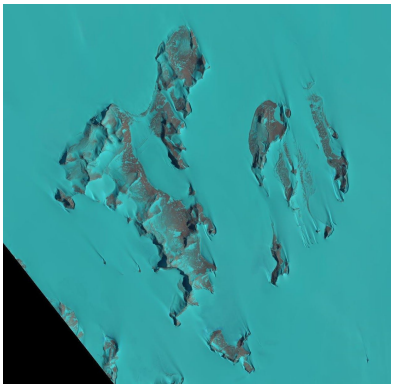

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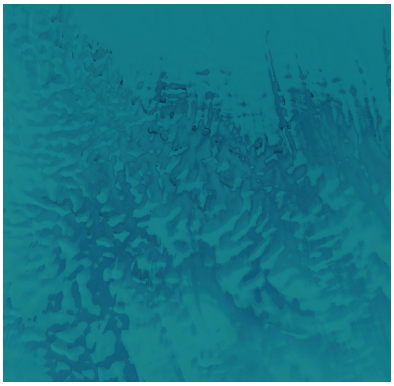

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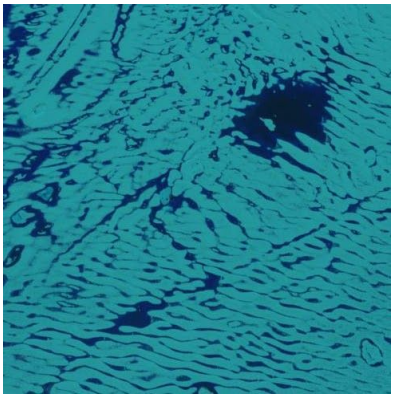

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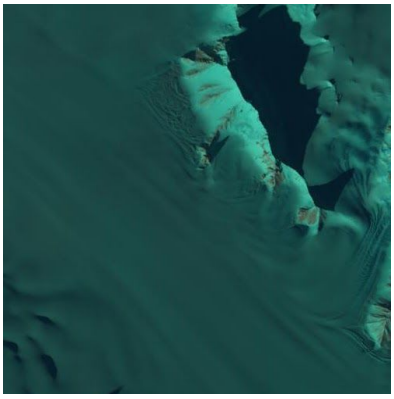

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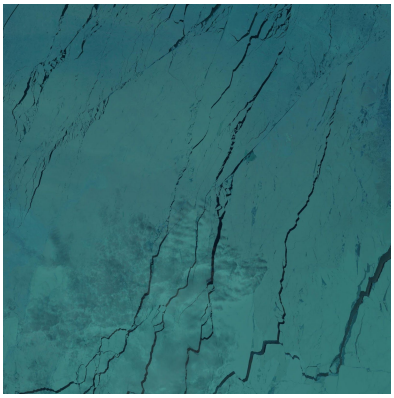

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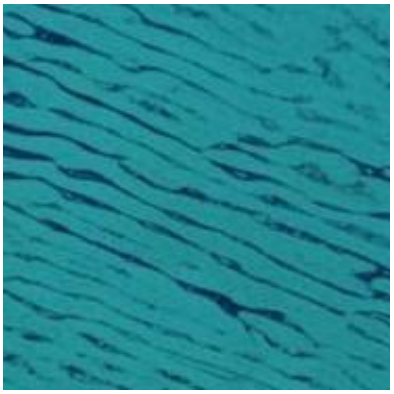

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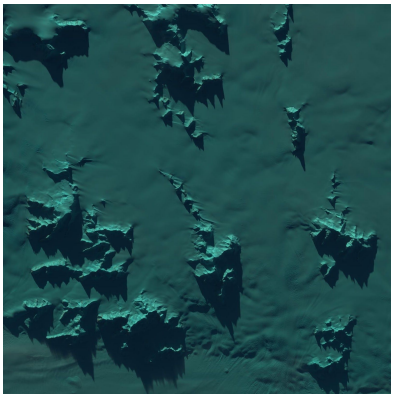

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