My NASA Data - Mini Lesson/Activity

NASA's Earth Minute: Greenland Ice

Grade Band

- 3-5
- 6-8

Time

- 15 minutes

Overview

Students will watch a video on the Greenland Ice Sheet and answer the following questions.

Student Directions

Watch the video NASA's Earth Minute: Greenland Ice and answer following questions.

Video: NASA's Earth Minute: Greenland Ice

NASA's Earth Minute: Greenland Ice | https://www.youtube.com/watch?v=yLm7PSsvW8g | Source: NASA Climate Change

Steps:

1. Check with your instructor on how to submit your answers.
2. Explain why coal miners brought canaries into coal mines.
3. Explain how the Greenland ice sheet is like a canary in a coal mine.
4. What is the only place on Earth with more land ice than Greenland?
5. If ALL the ice from the Greenland ice sheet melted, what would happen to sea level?
6. How long might it take for ALL the ice from the Greenland ice sheet to melt?
7. How much water is the melting Greenland ice adding to the ocean each year?
8. What is a gigaton?
9. Describe what other environmental changes could be a result of the melting ice.

Source:

1. NASA's Earth Minute: Greenland Ice. (2015, August 28). YouTube. Retrieved October 17, 2022, from https://www.youtube.com/watch?v=yLm7PSsvW8g

Teacher Note

Located in the Arctic near the North Pole, Greenland is covered by a massive ice sheet three times the size of Texas and a mile deep on average. Greenland is warming almost twice as fast as Antarctica, which is causing the ice to melt and raise global sea levels. NASA is monitoring Greenland's ice sheet from high up in space down to the ocean floor to provide data for scientists studying the global impact of all its melting ice.

Teachers, these mini lessons/student activities are perfect "warm up" tasks that can be used as a hook, bell ringer, exit slip, etc. They take less than a class period to complete. Learn more on the "My NASA Data What are Mini Lessons?" page.

Teachers who are interested in receiving the answer key, please complete the Teacher Key Request and Verification Form. We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access.

NGSS Three Dimensional Learning

NGSS Disciplinary Core Ideas

- ESS2A: Earth Materials and Systems

Crosscutting Concepts

- Scale, Proportion, and Quantity
- Stability and Change

Science and Engineering Practices

- Constructing Explanations and Designing Solutions
- Obtaining, Evaluating and Communicating Information