My NASA Data - Mini Lesson/Activity

Explore Albedo

Student Directions

What is Albedo?

Albedo is the fraction of light that a surface reflects. If it is all reflected, the albedo is equal to 1. If 30% is reflected, the albedo is 0.3. The albedo of Earth's surface (atmosphere, ocean, land surfaces) determines how much incoming solar energy, or light, is immediately reflected back to space. This can have an impact on climate.

Source: NASA Climate Bits: Albedo on YouTube - Video Length: 2 minutes
https://www.youtube.com/watch?v=d1U7X1k3d0Y

Steps

1. Review the NASA Climate Bits: Albedo video and answer the following questions. (Check with your instructor on how to submit your answers.)
   1. What is albedo?
2. What do the colors represent in the weekly maps of reflected solar radiation for the past 10 years?
3. Why is albedo important for Earth's climate?
4. What pattern did you notice?
5. Why do you think there are missing data at the poles during their winter seasons?
6. How can humans impact albedo?

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.