My NASA Data - Mini Lesson/Activity

Energy and Matter: Dust Transport

Grade Band

- 6-8
- 9-12

Time

- < 15 minutes

Overview

This mini lesson engages students in watching a NASA video related to accumulated dust that makes the trans-Atlantic journey from the Sahara Desert to the Amazon rainforest using NASA's CALIPSO satellite. Students will examine a model and answer questions related to dust transport and the introduction of phosphorus to the soils of the Amazon.

Student Directions

Review the video, Satellite Tracks Saharan Dust to Amazon in 3-D, and answer the following questions.

Video: NASA | Satellite Tracks Saharan Dust to Amazon in 3-D

NASA Goddard| Satellite Tracks Saharan Dust to Amazon in 3-D |

Steps:

1. Check with your instructor on how to submit your answers.
2. Where does the dust originate or come from? Explain what is important about the location of where the dust originates.
3. What location does the dust travel to? Explain what is important about this location.
4. How does the dust travel from one place to the other?
5. What NASA satellite collects the data?
6. Explain how the geosphere and the biosphere are connected in this example.

Teacher Note

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
- Systems and System Models
- Structure and Function
- Stability and Change

Science and Engineering Practices

- Developing and Using Models
- Engaging in Argument from Evidence
- Obtaining, Evaluating and Communicating Information