

In The News

Current Events in Earth & Space Science

Summaries for the Classroom

Volcanic Pumice off New Zealand

In 2012, an underwater volcanic eruption generated a floating raft of pumice 200 square miles larger than the state of New Jersey. The golf-ball-size pieces of rock are from the Havre eruption in the Kermadec Islands.

Articles to Share with Students

BBC News - Vast Volcanic 'Raft' Found in Pacific, Near New Zealand http://www.bbc.co.uk/news/science-environment-19207810

CNN.com – 'Weirdest thing' Floats in South Pacific http://www.cnn.com/2012/08/10/world/asia/floating-pumice/index.html

Wired Science Blogs - What is the Fate of Volcanic Pumice Rafts? And Havre Seamount http://www.wired.com/wiredscience/2012/08/the-biology-of-volcanic-pumice-rafts/

http://www.wired.com/wiredscience/2012/08/source-of-kermadec-island-pumice-raft-eruption-identified/

General Information

Undersea Volcano Eruptions Caught on Video (*note this video is not the eruption from this event, just an example)

http://www.youtube.com/watch?v=hmMlspNoZMs

NASA Earth Observatory – Satellite Images of Volcanic Eruption and Pumice http://earthobservatory.nasa.gov/IOTD/view.php?id=78849 http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=78863

New York Times Topics – Volcanoes http://topics.nytimes.com/top/news/science/topics/volcanoes/index.html

Questions for Classroom Discussion

- On a map, find the location of Kermadec Islands and Havre Seamount.
- What is pumice? How does it form?
- Where and why do volcanic eruptions occur underwater?
- Look at a map of ocean currents. If the pumice does not break down, where might the pumice rocks wash up?
- What impact might a floating pumice raft have on the biosphere? What are your thoughts?
- What do you think will be the impacts on the biosphere of planet Earth if mammal species continue to go extinct?
- Do you think humans should "clean up" and remove the pumice rocks from the ocean, or leave them be? Why/why not?
- Could another pumice raft appear on the ocean surface? How? Where?

Tags

Volcanic Eruption, Pumice

Big Ideas

From the Earth Science Literacy Principles

- Big Idea 1. Earth scientists use repeatable observations and testable ideas to understand and explain our planet. (1.2, 1.3)
- Big Idea 3. Earth is a complex system of interacting rock, water, air, and life. (3.6)

From The Big Ideas in Earth and Space Science (ESBD)

- The Geosphere (4, 5)
- The Nature of Science (21, 24)

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