

M3 Science - Volcano Research Project



Figure 1. A vehicle attempts to escape a cloud released by the eruption of the Pinatubo stratovolcano on June 17, 1991, on Luzon Island, Philippines. Pinatubo rose about 5725 feet above sea level before the June 1991 eruption. Almost 500 feet of the volcano was blasted away by this eruption.

Investigating Volcanoes

Class time:

2 class periods

Assignment:

Working individually, you will answer the questions below as you create and illustrate a brochure or website about volcanoes. Be sure to use reliable sources, i.e. avoid websites like Yahoo Answers, Answers.com, etc. which often have inaccurate info.

Checklist:

- The project has two parts. Answer all the questions for both parts. (Details below.)
 - Part 1: General Facts about Volcanoes
 - Part 2: Information about a specific volcano of your choice
- Write clearly using specific scientific language.
- Include powerful and informative visuals: photos, diagrams, etc.
- Cite your sources at the end of your project.
- Include multimedia like videos.
- SHARE YOUR COMPLETED PROJECT WITH ME BY THE END OF THE DAY, FRIDAY, APRIL 18

Note: You may use any software you'd like as long as I can view the end result on my computer.

Sample Brochure and Website

Brochure: <http://pubs.usgs.gov/fs/2001/fs001-01/fs001-01.pdf>

Webpage: <http://pubs.usgs.gov/fs/1996/fs094-96/>

A few good sources

<http://www.volcanodiscovery.com/>

<http://www.accessscience.com/>

<http://www.bbc.co.uk/search/?q=volcano>

<http://video.nationalgeographic.com/video/101-videos/volcanoes-101>

<http://volcanoes.usgs.gov/>

<http://volcano.oregonstate.edu/>

PART ONE: General Facts about Volcanoes

Include and answer the following questions:

Volcano Terminology and Types

- What is a volcano?
- What is a subduction volcano?
- What is an island chain volcano?
- Why are volcanoes called “active” even when there is no eruption?

Volcano Locations and Size

- Where are the most active volcanoes?
- What do fault lines and volcanoes have to do with one another?
- When was the world's largest volcanic eruption?
- Which volcano caused the most destruction to human settlements?

Volcanic Behavior and Results

- What are volcanic rocks?
- Can you predict when a volcano is going to erupt? If so, how?
- How do volcanic eruptions effect the environment (air, plants, animals, land)?
- What types of eruptions are most dangerous for villages or cities nearby?

PART TWO: Investigation of a specific volcano

Chose a volcano to investigate that interests you. You might choose based on where it is, how large it is, it's historical importance (don't forget about past volcanoes!), whether you've visited there, if it hurt many people, or any feature that catches your interest. Answer the following questions.

- What makes this volcano particularly interesting to you?
- How was it formed?
- What connection does your volcano have to plate tectonic motion? (Include whether it is a subduction volcano or an island chain volcano.)
- When did it last erupt?
- What kind of material was ejected when it erupted?
- Were any people affected? How?
- Where any buildings affected? How?
- What surprised you that you learned about this volcano?
- Bonus Level: include a story about the volcano and people and/or animals affected by it.