

## Volcano! assignment

In our Volcano! project, your assignment will include monitoring, research, graphic representation, and classroom presentation of an active volcano located anywhere in the world. Examples include Mt. Redoubt, Mt. St. Helens, Vesuvius, Popocatepetl, and Mt. Ranier—with several more global possibilities!



*Mt. St. Helens, courtesy of the United States Geological Survey,  
[http://volcanoes.usgs.gov/vsc/images/image\\_mgr/500-599/img535\\_300w\\_450h.jpg](http://volcanoes.usgs.gov/vsc/images/image_mgr/500-599/img535_300w_450h.jpg)*

### Choose your volcano

All students must have a unique volcano to research. Both the U.S. Geological Survey and Oregon State University have lists to help you choose: The U.S. Geological Survey provides a partial list of U.S. volcanoes (<http://volcanoes.usgs.gov/about/volcanoes/volcanolist.php>) while Oregon State University archives the most active volcanoes in the world ([http://volcano.oregonstate.edu/volcano\\_table](http://volcano.oregonstate.edu/volcano_table))

You may begin posting your choice beginning \_\_\_\_\_ at \_\_\_\_ am. Any postings requesting a specific volcano before that time will be removed.

1. Post your choice with the selected volcano as the title.
2. For a particular volcano, the student/group who posts the volcano is the student/group who will be able to research the volcano.
3. The sooner you have your volcano approved, the sooner you can begin your research.
4. All students must have a volcano identified by \_\_\_\_\_.

### Research your volcano

1. There are several websites you will want to investigate.
  - a. The URL for the USGS volcanoes page is <http://volcanoes.usgs.gov>
    - i. The volcano activity tab covers recent eruptions.
    - ii. Volcano hazard monitoring webcams can be found at <http://volcanoes.usgs.gov/images/webcams.php>

- b. The global volcano monitoring site can be found at [www.volcano.si.edu/weekly\\_report.cfm](http://www.volcano.si.edu/weekly_report.cfm)
- c. The Volcano website at Oregon State University is <http://volcano.oregonstate.edu>

#### Your volcano project responsibilities

1. This volcano project is worth 150 points.
2. Active monitoring: You should inform our class of the current activity of your selected volcano. Set up a thread under the VOLCANOES! Strand of our discussion board/blog. (*Option: Students may produce weekly newsarticles [print] or video updates.*)
  - a. Use the name of your volcano as the subject line, and keep your posts under this strand.
  - b. Post some introductory material about your volcano. This should include the tectonic setting of your volcano (such as divergent boundary, hot spot, oceanic-continental subduction zone), any notable historic eruptions, and recent activity.
  - c. Update our class on your volcano at least once a week. If your volcano is quiet and not cooperating, you can discuss other interesting aspects of the volcano that you learned in your research.
3. Research report. All students will turn in a research paper as part of the project.
  - a. Although quality is more important than quantity, your report should be a minimum of three pages, double-spaced, Times New Roman size 12 font
  - b. Alternatively, you may design a tri-fold brochure that represents your research findings.
  - c. For either research report or brochure, you must provide a separate references page, with a minimum of three resources.
  - d. Your content should include the tectonics background of your volcano, the geological history, and the historical events/eruptions.
    - i. Discuss the different historic events surrounding your volcano.
    - ii. How can a future volcanic eruption impact humans? Are there any precautions taken for potential eruptions in the surrounding area? Have eruptions been predicted (or are now predicted)? If predicted, how did the precautions/predictions correlate to the damage and actual events?
4. Application: Concept map construction
  - a. Graphically represent your research in a concept map. You should include both geologic and historic (human) events. You may choose to design a collection of concept maps as opposed to one single map.
    - i. You may use mapping software (C-map or Inspiration), hand-draw your concept map, or compose a concept map in PowerPoint, Microsoft Word, etc. The choice is yours.
5. Application: Classroom presentation
  - a. Be ready to summarize your volcano research to our class and report the interesting information you learned. You should include the tectonics setting and your volcano's impacts on humans in more recent time.
  - b. You may use a PowerPoint presentation or provide handouts to class members. You can also use props, but all experiments and demonstrations must follow our safety rules and be approved by the teacher ahead of time.

## Summary

Provide our class with an interesting introduction on your volcano and a minimum weekly update. Your research paper/trifold brochure and your concept map(s) are due \_\_\_\_\_.

The Volcano! project is scored according to Active Monitoring and Classroom Discussion (25 points), Research Paper/Brochure (60 points), Concept Map (40 points), and Classroom Presentation (25 points).

## Checklist for concept map scoring

The concept map is scored at 40 points in the 150 point Volcano! project

- \_\_\_ Concepts present? (20 pts. maximum; 1 pt./concept)
- \_\_\_ Concept relationships (5 pts.; -1 pt. for each inappropriate hierarchy)
- \_\_\_ Branch links identified? (5 pts.; -1 pt. for each unlabeled link)
- \_\_\_ Cross links (5 pts. minimum, 1 required)
- \_\_\_ Examples (5 pts. minimum, 1 required)