GE151j: Adopt-a-volcano project

One of the major assignments in this class requires you to become, as part of a 2-person team, the resident expert on one particular volcano, selected from the list on the other side. The main requirement of the assignment is the preparation of an oral presentation that contains all of the fundamental information about that volcano, and presentation of that material to the class. The volcanoes to be studied may not be found in your textbook, so you will need to consult a variety of other sources (primarily books, journal articles and web sites) for the information. This exercise will give you some experience in the design and construction of a presentation in PowerPoint, a format that is becoming the professional standard in professional settings - both in the sciences and in business. Having experience in PowerPoint preparation is thus a great skill to develop. (I.e., "It'll look good on my resumé!")

Projects will be presented on the first two days of the last week of classes - January 26th & 27th. A complete PowerPoint file of the completed presentation will also be submitted to me for archival purposes, by e-mail, or on a memory stick ("thumb drive") or burned CD (if it is too large to send via e-mail). The Colby size limit for e-mailed attachments is 25 Megabytes (Mb).

The Purposes/Goals of this assignment are:
1. to become particularly familiar with one particular volcano in the world, its eruptive history and tectonic setting. Many of those on the list are major features with constant activity or proximity to large population centers, or both. Some are just plain fascinating features.
2. to gain familiarity with available resources and literature on volcanoes. NOTE that Wikipedia is NOT the ultimate source of information and should not be your only source for anything! By the time you've made it to college as well, encyclopedias in general should be references that are behind you as your primary sources. There is an abundance of reliable information available on the Internet on volcanoes, from sites linked through the Geology volcano and earthquake information web page (http://www.colby.edu/geology/V&e.html). Make use in particular of the Smithsonian Institution's web pages for basic information.
3. to gain practice in using computerized databases to search for material on an unfamiliar topic.
4. to gain experience in designing and completing a visually appealing poster or illustrated oral presentation, AND
5. to gain experience in orally describing your work to others.

Your presentation should include the following information (as appropriate):
1. The name of the volcano (prominently displayed)
2. Your names and Departmental Affiliation (Dept. of Geology, Colby College, naturally!)
3. Basic Information:
   a. Geographic and tectonic setting (include an index map showing where it is!)
   b. Form and dimensions of the volcano
   c. Descriptions of vents, craters, calderas, etc.
4. Eruptions
   a. Eruptive history: when is it known or suspected to have erupted?
   b. Descriptions of observed eruptions, classification of eruptive style(s)
   c. Volcanic hazards and contributions (past/present/future)
5. Rocks and Deposits
   a. Description of the volcanic deposits
   b. Petrology (what rock types are here?) and geochemistry (what is IN them?)
   c. Form - are these pyroclastic blankets, cinder cone deposits, lava flows, or what?
6. Other interesting information.
   a. Hydrothermal activity – if any; are there mining activities in hydrothermal deposits?
   b. Tourism – if applicable
   c. Geothermal energy – if applicable
7. Geophysical or other active monitoring of the volcano
8. A bibliography of all references consulted.
With careful planning, all of this information can be included in 8-10 slides in an oral presentation. Information on preparing the PowerPoints will be presented in class. However, you should begin to search the literature, and acquiring appropriate materials right away.

**Some basic suggestions for oral presentations:**

1. An oral presentation allows you to say what needs to be presented as basic information. Therefore, *text* on your slides should be **minimal** – generally no more than 15-20 words per slide. **Do not under any circumstances ever read your slide to the audience.** Look at the slides in the PowerPoint I'll be using in class for examples. **Do** feel free to use a different font than the default that Microsoft has selected for you (since they assume you don't have the brains to select one on your own). **Do** try to be consistent in fonts in all your slides, however, save for rare special effects. Otherwise, people get distracted by the font changes from one slide to the next. Most fonts will be easier for your audience to read if they're in **bold**.

2. Photos can tell a great story – "A picture is worth a thousand words." Images of your volcano and its features can give a sense of reality and immediacy beyond what can be conveyed in words. You may also be able to find YouTube or other video clips of your volcano erupting, if it's one currently or recently active. These can be inserted into a slide using the "Insert Hyperlink" command, then entering the URL for the video clip. Geologic maps of deposits exist of SOME notable volcanoes, and can be found on-line. GoogleEarth imagery can ALSO be very useful for many features – though for some of the volcanoes, you'll need to enter the latitude and longitude to get there. The name of the volcano may not be recognized (surprisingly) by the Google search engines.

3. **FILL** the slides, either with text or imagery. Don't leave a lot of empty space around the margins – it's a waste of a good resource. Either increase your text font or image size, or add more material.

4. Be judicious in your use of special effects. Flashing images can be hard on the eyes, but if you have multiple images you wish to bring in on a single slide, it's OK to bring them in individually. There's a whole host of ways these can be entered – and entry speeds and many other factors can be adjusted. Sound effects generally should be used sparingly – they tend to be best when you are looking for audience laughter.

**List of Volcanoes from which to choose:**

**Session I**

1. Arenal, Costa Rica
2. Reventador, Ecuador
3. Ubinas, Peru
4. Ruapehu, New Zealand
5. Mt. Erebus, Antarctica
6. Merapi, Indonesia
7. Surtsey, Iceland

**Session II**

8. Stromboli, Italy
9. Piton de la Fournaise, Reunion Island
10. Kilimanjaro, Tanzania
11. Erta Ale, Ethiopia
12. Mt. Cameroon, Cameroon
13. Fuji, Japan
14. Fuego, Guatemala
15. Taal, Luzon Island, Philippines
16. Changbaishan (=Baegdu or P'aektusan) [China/Korea border]
17. Tenerife, Canary Islands
18. Mt. Spurr, Alaska
19. Navidad, Chile
20. Pico de Fogo, Cape Verde Islands