

21st Century Information Skills
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Problem:

Students will gain more information and understand the principles of Plate Tectonics in building earthquake, typhoon, and hurricane proof buildings. Students will use the Internet to research the various issues related to the development of "safe buildings"

Learner Characteristics:

The students involved in this project are 53 sixth grade students from the Kappa team at Meridian Middle School, Buffalo Grove, IL. The diversity of students in this team includes not only academic but also cultural differences. We have several Special Education Students and several ESL students, on this team. The Kappa team of students has presented us with some additional problems, they do not think they need to do homework, and they have not been cooperative, as some students in other 6th grade teams have been in the past. This has caused delays in getting to the unit. We had to take time to repeat other work in order for them to move on to the next unit of study. We will use Internet resources to locate information on topic chosen for Plate Tectonics report.

Goals:

To use the Internet to research an aspect of plate tectonics, either historically information related or demonstration.

To use the Internet to research building safety concerns as related to Earthquakes, Volcanoes, or Tsunami.

1. Students will extend their use of Keywords when searching in Search engines.
2. Students will become Mini experts on their topic, reporting to the class the information they collected.

Objectives:

1. Students will be able to locate and evaluate information found on the Internet to understand the effects of an Earthquake, Volcano, Tsunami, not only the effects of an Earthquake, Volcano, Tsunami, not only on the short term, but also the long-term effects as well.
2. Students will develop a presentation to share information with their classmates.
3. Working cooperatively with other students they will attempt to build a disaster proof building. (this portion of the unit will be completed after winter break.)
4. Students will use currently held or extended computer skills to make their presentation to class. Students may use Appleworks, Hyperstudio, or PowerPoint to develop their presentation. In addition, students may create a videotape presentation.

Learning Methods and Strategies:

1. Cooperative learning
2. Guided learning

3. Problem solving
4. Synthesis
5. Evaluation

Materials List:

- Computer with I TV hookup for demonstration.
- Plate Tectonics Pathfinder (or Web page)
- Computers with Internet access
- Print resources to supplement the Internet resources

Bibliography:

Ramsey, I. "Plate Tectonics, Volcanoes, Earthquakes for K12", [Online], (Harrisonburg, VA USA): James Madison University
[nd] Available from Word Wide Web: < <http://falcon.jmu.edu/~ramseyil/plate.htm> >. [Cited 12 December 2002].

Comments: From the Internet School Library Media Center, provides links to several resources broken down by subject. Includes links to government and university web sites.

U.S. Geological Survey (Reston, VA USA) US Dept of Interior, United States Geological Survey", updated 10-Dec-2002", "Available from Word Wide Web: < <http://www.usgs.gov/> >. [Cited 10-Dec-2002]

Comments: The Federal government's official link to all things involving earthquakes, volcanoes, floods and plate tectonics"

Volcano World. [Online] Brainspace.org.(ND, USA) University of North Dakota, USA 2002, "Available from Word Wide Web: < <http://www.volcanoworld.org/vw.html> >. [Cited 12 December 2002].", "Volcano World has been the Internet's leading source of information about volcanoes since January 1995."

Welcome to Tsunami! [Online]. (Seattle, WA, USA): University of Washington, Geophysics Department, 8-June-2000. Available from World Wide Web: < <http://www.geophys.washington.edu/tsunami/intro.html> >.

[Cited 5-December-2002].

Comments: Although this page was last updated in 2000, it does provide links to a variety of sites about Tsunamis."

Description of Activities:

- I will review with students the importance of using keywords to develop searches when looking for information. Students will use a simplified search
- Students will be given an opportunity to choose a topic of their choice with teacher approval.
- Students will be encouraged to work in groups, but may also choose to do a topic on their own.

- Students will be given at least 5 days of research time at school in 40-minute periods.
- Students will be encouraged to use additional time after school or at home to complete research. Students have access to the school library Monday – Thursday for an hour after school, in addition to the local public library.
- Students will present knowledge learned in a 3-5 minute presentation. Students are encouraged to use any of the technology available to them.

Assessment device:

We used the rubric designed by Science teachers to evaluate our students' work. Students will evaluate themselves, in addition to the evaluation by the teacher. Their teachers evaluation will be the one that ways the heaviest in their grade.

What I learned about my students:

You have to give them very specific instructions and directions about how they are delivering their presentations. I found a new form to guide them in doing research, which I will be using with them. I ran around on the day of their presentations trying to make technology work for them. Some of them brought in videotapes on small recorders with out checking with me to see if they would work. Thankfully, I was able to get most ready to play for the classes but it was a pain. We did have some rather fun ones, including one of our Japanese students who did his speech as a reporter for a television newscast in Japan. He did his entire presentation in Japanese; it was actually quite good. Too bad, we did not tape that one. He actually speaks a lot of English just chose to do in Japanese since that is where his disaster took place.