

WEBQUEST EVALUATION

The following is an evaluation by David Crewes of the WebQuest entitled "Geology WebQuest". This evaluation was part of the course requirements for CEP 811, through Michigan State University. The WebQuest itself was developed by Paul Chonka, of the Arts & Technology High School in Marysville, WA. He was assisted by Katherine Jordan, a science teacher at the same school. The target audience is high school students, mostly those enrolled in the 9th and 10th grades. The following is the link to the Geology WebQuest: <http://questgarden.com/104/54/8/100605131939/index.htm>. Here is a screen shot of the process tab:

The screenshot shows a web browser window titled "Geology WebQuest: Process - Windows Internet Explorer". The address bar shows the URL <http://questgarden.com/104/54/8/100605131939/process.htm>. The browser interface includes a search bar, navigation buttons, and a taskbar at the bottom. The main content area is divided into a left sidebar and a main text area. The sidebar, on a dark red background, lists navigation options: Introduction, Task, Process (highlighted), Evaluation, Conclusion, Credits, and Teacher Page. The main text area, on a light yellow background, is titled "Process" and contains the following text:

Process

Plate Tectonic Theory

What is the evidence for the Theory of Plate Tectonics? (That's right this is a theory, just like virtually everything else in science.)

Provide at least three different pieces of information. [Click here for information](#)

Explain in detail how those pieces of evidence support the Theory of Plate Tectonics.

Below the text is a diagram titled "Types of Plate Boundaries" showing cross-sections of different plate boundaries: Convergent Plate Boundary, Transform Plate Boundary, Divergent Plate Boundary, and Continental Rift Zone (Rifting Plate Boundary). The diagram labels various geological features such as subduction, trench, island arcs, volcanic arcs, magma, and the asthenosphere.

Below the diagram is the text:

Types of Plate Boundaries

How do plates come together on the surface of the planet?

Overall, I found the Geology WebQuest to be adequate. I thought that the coverage of content was excellent, but the student oriented educational goals seemed a bit vague at points. The questions that the students were to investigate in the WebQuest, lacked direction and were open to different levels of interpretation. I could easily see students becoming confused and frustrated in an effort to answer all of the questions.

The curriculum standards addressed in this WebQuest were the State Science Standards for the state of Washington. The standard in question was ES.3A. If this document was to be used in the state of Michigan, it would incorporate more standards due to the wide coverage of the inter-related topics of plate tectonics. Some of the standards would be those covering the driving forces of tectonics, theories and histories of the study of tectonics, interactive regions, plate boundaries and finally the formations of features of plate tectonics.

The teaching strategies of this WebQuest are multifaceted. The inductive nature of some of the questions leads students to investigate on their own and find their own answers. The PowerPoint presentation of student data is more deductive or scaffold in nature as students have seen many presentations in class by the instructor and the expectations of such presentations have already been set by the instructor. The students are allowed free reign in their presentations of the material which usually leads to very creative products. Lastly, some of the questions posed in the WebQuest are fairly open ended, which also can lead to greater creativity in answers. I also thought that the way some of the questions crossed over into the Social Studies realm was a great touch. The blending of Science and Society can usually lead to very stimulating discussions.

I think that this WebQuest blends technology in a very useful manner. It allows the internet to be used by the students in their search for answers, but at the same time, gives them search strategies to make things easier. The end project of a PowerPoint presentation, also allows for the use of well known technology to stem conversation, discussion and dialogue in the classroom.

I think this WebQuest does actually work. I found no flaws, or broken links. The multitude of hyperlinks to other websites was effective, efficient and correct in their directing. Once clicked on, the answers to the question were easily found, to a point. Each section had different levels of questions associated with the material. I felt that the higher level thinking questions should have been reworded a bit to avoid confusion and "search frustration". All the material was up to date, the pictures were plentiful and potent, and there were even flash-based images imbedded in some of the links. Most of the links were of creditable sources such as United States Geologic Service and National Geographic.

For the most part, I would not change too many things in this WebQuest. The content and coverage is excellent. The dynamics and flow of the WebQuest are comfortable and painless. The culminating project is known to the students and allows for much needed variations. The only fault (get it, like earthquakes☺) is that the questions associated with a higher cognitive response from the students might be a bit vague and the answers too hard to find. More specificity and direction would be needed for those questions so that the instructor doesn't have to intervene with each student when they become frustrated and upset. Overall, this is a good lesson and I would not hesitate to use this in my own classroom.