AUTHENTIC ASSIGNMENT 1: GEOCACHING

Standards: Geography Strand

3. Globes and other geographic tools can be used to gather, process and report information about people, places and environments. Cartographers decide which information to include and how it is displayed.

4. Latitude and longitude can be used to identify absolute location.

Expectation for Learning: In this two-day lesson, students will use maps and GPS technology. The students will integrate latitude and longitude coordinates in navigating the school grounds and locating hidden geocaches in a team competition for geocaches finds.

Instructional Strategies:

* Day 1
  + Introduce students to the concept of Global Positioning Satellites and history behind the purpose and use of this technology. Many know that GPS are used in finding locations, getting directions, etc. Show students the geocaches and explain that geocaching is a game which is played on a global level using GPS units. People use the GPS units to use precise latitude and longitude coordinates to find hidden geocaches.
  + Explain how to use the GPS units and show students how to reach the screen with the latitude and longitude coordinates.
  + End the lesson by having students complete and glue their Geocaching University’s Kid Page <http://www.geocacher-u.com/resources/placemat2.pdf> into their Interactive Social Studies Notebooks.
  + Prior to the second lesson, hide the geocaches at three different locations on school grounds. Take latitude and longitude readings of each geocaches hide for the students’ clue sheets. Make sure to place them so that once students have found the location with their GPS units, the caches can be found. Some suggestions for hiding places: in the nook of trees, under a porch or bench, behind a bush, etc. I attached the microcache (Altoids can) under a downspout with the adhesive magnet.
* Day 2
  + Assign students into teams of 4 for seeking out the hidden geocaches. This takes the form of a game, where each team desires to be the FTF or “First to Find” the hidden geocaches container. Each geocache contains the Blue, Red and Yellow cards with the points. When teams find the geocaches, they are to take the card with the highest points and a prize then sign the logbook. At the end of class time, student teams meet together to discuss their experiences and see which team wins.
  + Student team members are assigned roles. Each team had two GPS units, those people are in charge of navigating to the geocaches by latitude and longitude coordinates. One person has the physical map with schoolyard landmarks. This person uses these landmarks to assess the terrain and mark the team’s path. The final person on the team uses the clue sheet to give the description of the cashe and sign the logbook of each geocache.

Instructional Resources: <http://www.geocacher-u.com/>

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

Computer and/or Smartboard for viewing geocaches websites and maps

GPS units with coordinate readings preset to read Latitude and Longitude in degrees, minutes, and seconds.

Map of school or event location with compass rose indicating cardinal directions and area landmarks, buildings, topography marked.

Students’ Interactive Social Studies Notebooks.

Geocache Forms

Copies of each clue sheet for each group.

Examples of geocaches clue sheets from http://www.geocaching.com/

Three geocaches containers created for the hide Two large geocache containers—approximately one gallon. One micro cache container- Small, Altoids-type tin

Inside Each Geocache container - Blue, Red, and Yellow cards or certificates indicating First to Find (ten points); Second to Find (five points); and Third to Find (two points). Log sheet for students to sign, Prizes (cache) for students to retrieve from the larger geocaches; the smaller or “microcache” will only contain the reward cards and the log sheet.

Essential Question: How do we know what we know about the world today?

Evaluation:

* Day 1: Use the kids’ page: <http://www.geocacher-u.com/resources/placemat2.pdf> to assess students understanding of the key concepts, vocabulary and rules of geocaching. These pages were included in the Geocaching Unit of our interactive social studies notebooks.
* Day 2: Evaluate observations of how students used the GPS units to navigate school grounds. After the time is up, gather to discuss the experience. Teams are also scored based upon the number of points or reward cards they had found.

AUTHENTIC ASSIGNMENT 2: WEBQUEST

Standard: Economics Strand

13. The fundamental questions of economics include what to produce, how to produce and for whom to produce

16. When selecting items to buy, individuals can compare the price and quality of available goods and services.

Expectation for Learning: Students will make their way through Econo-Town.  On their way they will learn about economic concepts.  Finally, they will take everything they learned to create their own good or service to offer to the class.

Instructional Strategies:

* Opening question: What is economics? Discuss this with the class and record their ideas on the board. After a few minutes, share the real meaning of economics.
* Explain: “Over the next few days, you will be completing a webquest that will lead you through the different aspects of economics: wants and needs, supply and demand, producer vs. consumer, and goods and services.”
* Put students into pairs and have them go to a computer. Make sure all students have a packet with all the pages for the webquest.
* Allow the students the rest of the class to work on their webquest. Teacher should circulate the room to help where needed.
* At the end of class, remind the students that it is OK if they are not finished. This webquest will take them several class periods. Answer any full group questions the students may have about the webquest.

Instructional Resources: <http://questgarden.com/15/11/6/060129180530/index.htm>

Packet with all pages printed for the webquest

Computers with internet access

Essential Question: Why can’t people have everything they want?

Evaluation: Use the rubric provided at the webquest site.