

AMARILLO EDUCATION  
FOUNDATION

GRANTS-TO-TEACHERS  
APPLICATION

**GRANT NO. 64**

**GEOCACHING AS A METHOD  
TO TEACH GEOGRAPHY**



**AMARILLO EDUCATION FOUNDATION**  
**Grants-to-Teachers Application**

Grant submission due date: **February 29, 2008**

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| <b>Date of Submission:</b> January 10, 2008  |   |
| <b>Applicant(s) Name(s)</b> Jeff Frazer  | <b>AISD Position</b> Social Studies Teacher |
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| <b>AISD Campus:</b> Caprock High School  |   |
| <b>Title of Project/Program:</b> Geocaching as a Method to Teach Geography   |   |
| <b>Amount Requested:</b> \$ 1,800  |   |
| <p><b>Summary of Project/Program:</b> Provide a one paragraph summary (600 words or less) of the project/program for which this grant funding is being requested.</p> <p><b>“Geocaching as a Method to Teach Geography “</b> will be an activity built into my U.S. History AP classes at Caprock High School The target will be 125 junior U.S. History students. In groups of 2, a class will use hand-held GPS units to locate geocaches that I have placed out. They could also be asked to locate geocaches that can be found from geocaching.com. A geocache is a hidden “treasure” that individuals search for using a GPS unit. Hundreds are hidden all over Amarillo. Students in this activity will learn map directions, map-reading, how to read a compass, and the basics of GPS navigation. Geography and maps are major areas addressed on the TAKS Exam. This GPS activity will be a fun and unique way to teach these essential skills in Geography.</p>  |   |
| <p><b>CATEGORY ONE: Purpose Served/Need for Project or Program:</b> Describe the need and/or purpose served by the proposed project or program, including relevant supporting data and documentation.</p> <p>I have observed after 22 years of teaching students at Caprock that Geography is one of their major weaknesses. Geography is also a major TAKS skill. Many can't go to a map and locate specific landmarks. Also students have a difficult time pointing out locations using specific directional terms (i.e. north, south, etc). The new GPS technology makes locating places easier, but it is still vital that they know directions and which way something is located. Students in 2008 need to know which direction they are traveling and how to read simple compass directions. A GPS also uses waypoints which are map coordinate points. Students need to be able to find things on a map using coordinates. All of these map skills can be incorporated into an activity using geocaching and hand-</p> |   |

held GPS units.

Cite specific elements of the campus improvement plan and/or district standards addressed by the project/program.

- Examine the impact of geographic factors on major events and use geographic tools to collect, analyze and interpret data. (From AISD U.S. History Standards)
- Create thematic maps, graphs, charts, models, and databases representing various aspects of the U.S. (SOC U.S. 08 A)
- Pose and answer questions about geographic distributions and patterns shown on maps, graphs, charts, models, and databases. (SOC U.S. 08 B).
- Use appropriate mathematical skills to interpret social studies information such as maps and graphs (SOC U.S. 24 H)

**CATEGORY TWO: Program/Project Objectives/Parameters:** Provide a detailed description of the quantifiable objectives of the project/program to be implemented.

**Objectives:**

**All students after completing the Geocaching activity will be able to:**

- Enter waypoints into a hand-held GPS
- Read compass directions and degrees
- Navigate to hidden geocaches using a hand-held GPS
- Plot geocaches on a map of Caprock or the city of Amarillo

Approximately how many students will be directly, or indirectly, impacted by this project or program:

**This geocaching activity would impact approximately 125 U.S. History AP students at Caprock each year.**

When would the project/program be initiated?

**This geocaching activity could begin in September, 2008.**

**CATEGORY THREE: Assessing Effectiveness of Program/Project**

**Objectives/Parameters** How will the effectiveness of the program/project be assessed as it relates to objectives noted in Category Two? What is the basis used to determine that this program/project would be successful? What tools will be utilized to track the attainment of the quantifiable objectives?

**Assessment is key to this project. I would use two methods to determine if my objectives have been met. Most important would be a GPS practical where students would be graded on being able to locate a hidden geocache in determined amount of time. I would observe their process and success in this assignment. Students would also be evaluated in a written exam to determine their ability to read compass directions and plot points on a map using coordinates.. Teacher observation in a practical situation and written exams should determine if my objectives have been met.**

**CATEGORY FOUR: Budget/funding of program/project: A.** Have other funding opportunities been explored and/or obtained, prior to this submittal)?

**Yes, the Principal at Caprock, Mrs. Christina Ritter, has indicated that if this grant is accepted that "some" matching funds would be available from Caprock site-based**



