GEO STAC Teaching Guide

Lesson Developer: Teacher and School

Subject Area: Math, Science, etc

Grade Level: Senior high, junior high, etc

Lesson Description: Provide a general overview of the lesson in terms of topic focus, activities, and purpose and the career connect you will make. Will this be a stand alone lesson, an inquiry based lesson, or part of a larger class research project? Provide a brief statement about the data used in the lesson/map. Briefly discuss your thoughts, experience, and advice about this lesson.

Recommended Time to Teach: (minutes)

National Standards: List at least two standards for your lesson discipline (i.e. Language arts, Science), at least two for technology, and two for another discipline.

Technology:
1)
2)

Discipline:
1)
2)

Discipline:
1)
2)

Learning Objectives: Lesson objectives must be measureable and address learning geospatial concepts in the context of a specific discipline. You will address three geospatial concepts and another discipline area (i.e. math, science, history, language arts). Describe what students will do while working through the lesson.

- ▶ **Geospatial Concepts:** What are the spatial questions students to be able to answer?
  a) Explicitly list at least three spatial concepts students will address.
  b) We will focus on the spatial concepts listed in the spatial thinking concepts from the Gersmehl list of words for spatial thinking.
  For example: Location - Students will discuss absolute and relative location by providing the latitude and longitude for large tornadoes and by describing where they occurred relative to each other.

- ▶ **Other Discipline:**

- ▶ **Career Connection:**

Web-based GIS Tools: What tools will student use in this activity? For example: Find, Query, buffer, measure.

Materials: List all materials students will need to complete this activity. For example: answer sheets, pen/pencil, paper, rulers, reading.

Prerequisites: What must students know before they begin this lesson? How does the lesson fit into the course?

Beginning the Lesson
Describe how you will introduce the lesson. What might you use as a anticipatory set? What question will you ask to get them engaged?

Developing the Lesson
Discuss how you will lead the student through the lesson. Remember the web-based GIS activity will most likely be only one aspect of this lesson.

Concluding the Lesson
Career Connections: Discuss the aspect of making STEM career connections and assessment

Assessment/Evaluation: How will you assess the stated learning objectives? Develop a specific assessment for the activity. For example: scoring rubric, post-test, project.