Teacher: Lynn Songer

Grade Level: Second – Fifth

Lesson Summary: In this lesson students learn how to see the world from a bird’s eye view and how to identify natural and manmade patterns on the earth’s surface. They will review how to locate features based on relative location.

Curriculum Connection: This lesson can be part of community building. Students should be familiar with cardinal directions and using a map scale.

Time Needed - Three 40 minute periods

Lesson status: Developed, never taught

Materials needed:
Cocktail toothpicks, computer access with QuickTime, internet access with Google Maps, student map handout, paper and colored pencils.

Geography Standards:
Standard 1. How to use maps and other geographic representations, tools, and to acquire, process, and report information from a spatial perspective.
Standard 4. The physical and human characteristics of places.

Geospatial Thinking Objectives:
Location: Students will learn to describe relative location using distance and cardinal directions to locate their homes and various landmarks.
Pattern: Students will describe spatial patterns of build landscapes while the look at Google maps, Google Earth, and Aerial photos

Starting the lesson:
Give students a sheet of paper and ask them to draw a map of their street. Have students place fancy cocktail toothpicks in a pattern on the lawn. Ask then to lay on their stomachs and make a sketch. Then ask them to stand above the toothpicks and make a second sketch.

Discuss the advantages of each perspective. What patterns did you see looking at the two perspectives? Ask them to think of reasons you would want an areal perspective over a horizontal perspective. Ask if anyone knows another name for an areal perspective. Why is it called a “Birds Eye View?”

The lesson:
1) First handout a US map showing the location of their city and the city that Amelia lives in. Discuss the relative location of both cities in terms of: major oceans, other countries and each other. Use cardinal directions and distance to describe these places.

2) You will read/watch with the students The Adventurer of Amelia the Pigeon. Discuss the birds eye view of the zoo. What are the patterns they see? How is it different than walking around the zoo?

3) Show students the satellite Google Map image of their school. Discuss the patterns of streets, trees, and buildings. In your discussion, include terms like: linear, clustered, evenly dispersed.

4) Change the image from satellite to map. Discuss how it is different and why a map is different from a satellite image. Ask them to give some location information about the school in terms of other nearby features.

5) Show several satellite images from the Earth From Space site. http://earth.jsc.nasa.gov/sseop/efs/ Discuss pattern and relative location of the inset map.

**Lesson evaluation:**
Ask the students to imagine the picture Amelia would take if she flew over their house. Give them paper and ask them to draw the picture she would take. Ask them to write the location of their house relative to the houses on their street.

Compare pre-activity maps with end of lesson maps. How many students drew from a birds eye view? How did the maps change after learning how to view from an aerial perspective? Was there any differences in maps based on gender or age?

**References:**


