MANCHESTER COLLEGE
Lesson plan by: Danielle Moeller
March 11, 2008

Lesson: "I Can Find That Where?" – a study of landforms

Length: about 45 minutes

Age or Grade Intended: 1st

Academic Standard(s):

- **1.1.2** Investigate and make observations to seek answers to questions about the world, such as "In what ways do animals move?"
- **1.6.1** Observe and describe that models, such as toys, are like the real things in some ways but different in others.

Performance Objective(s):

- Upon completion of this activity, students will list at least one way in which their model is different than real life and at least one way in which their model is similar to real life.

Assessment:

- The teacher will walk around the room and ask questions to the students such as how the landforms differ. Students will also be verbally asked as a class about the differences and similarities between their model (their map) and real life.

Advanced Preparation by Teacher:

- Materials needed:
    - Outline of United States on thick paper
    - 8 rocks per student of varying sizes
    - A container of sand for each group
    - A container of soil for each group
    - A container of blue jello powder for each group
    - Each student needs glue
    - Real relief map to use as a guide on the board

Procedure:

Introduction/Motivation:

- "How many of you like to go on car rides?" (*Blooms-Knowledge*)
- "What do you see when you go driving around Roanoke or Huntington?" (*Blooms-Knowledge*)
- "Correct, the land around us is very flat. Do you think that it looks the same way that it does here all across the country?" (*Blooms-Knowledge*)
- "That's right. The land looks different depending on where you are in the country. Every August my family takes a trip to go camping in the mountains in the northern part of New York, and it definitely looks a lot different than what I see

on my way home from school. Today we are going to talk about four different kinds of landforms: mountains, plains, deserts, and oceans. In order to do this, we have a very special project that we are going to do."

Step-by-Step Plan:

- "Before we begin our project, I want to look at a map of the United States. What do you notice about this map?" (*Blooms-Knowledge*)
- Talk about how the different colors represent the different levels of elevation. Point out which colors stand for the four different landforms we are talking about.
- Have different students describe the differences between a desert, a plain, and a mountain. (*Blooms-Comprehension*)
- "Now that we have an understanding about what these different landforms are, we are going to do a little research on where we can find these different landforms across the country."
- Hand out the outlines of the United States and have students get out their glue.
- Tell students that there are 2 major mountain ranges; ask them where they think they are located in the United States.
- Ask students why they thought mountains are located in certain areas. (*Blooms-Comprehension*)
- Show the students where the two mountain ranges are in the East and the West. Have students glue 3 small rocks to represent the smaller range in the East and 5 bigger rocks to represent the larger range in the West.
- Ask students where they think the plains are located; have them explain why. (*Blooms-Comprehension*)
- Explain that the plains are mainly found in the Eastern part of the country. Have them put down a layer of glue on this area of their maps and then sprinkle or spread soil on the glue to represent the plains.
- Ask the students where they think deserts are found; have them explain why. (*Blooms-Comprehension*)
- Show the students how much of the West is a desert. Have them put a layer of glue down in that area and sprinkle or spread sand over the glue to represent the deserts.
- Ask the students were they can find water.
- Point out that there is not only water on the sides of the United States, but we can also find water throughout the country in lakes, rivers, and streams.
- Have the students put a layer of glue down for the water and sprinkle or spread blue jello powder to represent the water.
- Talk with the students about how they just made a type of model; if we could take a picture of the United States from way up in the air, this is about what it would look like in regards to the landforms. Talk about/ask them about how it is the same and how it differs from real life. (Blooms-Comprehension)

Closure:

- Ask 4 different students to describe each of the landforms found on their maps.
- "Your maps look so good! You all did a wonderful job following directions and answering my questions. We are going to let these sit on your desks so that they can dry while you are at music. Let's line up at the door, please."

Adaptations/Enrichment:

- For students that need a challenge, I will allow them to work on their own using the color coded map at the front of the room.
- For the student in my classroom who does not talk, I will allow her to answer my questions by either telling a student that is sitting around her and letting them relay her answer to me or have her come up to the board and show me where whatever I am asking her about is located on my master map.

Self-reflection:

The students absolutely LOVED this activity. This was only the second time all year that they actually did a science lesson; the looks on their faces when I wrote science on the agenda board were so funny! Getting all of the things ready was a little bit frustrating and time consuming, but it was very much worth it in the end. My students really enjoyed getting their hands dirty and working with physical objects as part of a lesson; that is not done very often in their regular class. I will never forget the one little boy who, not more than 5 minutes into the lesson, shouted across the room, "SCIENCE IS AWESOME!" I don't think that I have ever smiled so big or felt so accomplished.

The next time that I do this lesson, there are a few things that I would change. First, a better system of handing out the rocks, sand, soil, and jello is needed because it was so hard doing it with two people that I can only imagine what a nightmare it would be on my own. I am thinking that I would plan it for after a break of some sort so that I can place containers of the given materials at each learning club. This way, all they have to do is use what is at their table instead of moving around the room borrowing from other people's containers and causing a huge mess on the floor. Secondly, I would place newspaper on their desks. Even though the paper was really thick, I still had problems with getting glue and soil rubbed in all over their desks. It took a good 25 minutes after school to clean off their desks and some of them just would not come clean. Lastly, in order to make this lesson better, I would plan ahead for it to take place over two activity periods. Once the dirt, sand, and rocks were placed on the map, I had the children wait for the blue jello so that we could let the glue dry and shake off the excess of the other materials. Then the blue jello was going to be placed in the open areas around the US and in the surrounding oceans. Since I did not plan on this, however, we did not have time to do the jello part. Overall, the lesson went extremely well; and I feel as though the students learned a lot about landforms while having a little bit of fun.

Rubric:

- **Checklist:**
  - Student completed a map. _____
  - Student followed directions. _____
  - Student was able to give at least one similarity and one difference between their model and real life. _____

Gardner- Logical-Mathematical/Bodily-Linguistic/Interpersonal Intelligence