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Grade 1-2, Hall Elementary School
Lesson Plan #1 - Making a Three-Dimensional Classroom Model

As the writer of this lesson plan, I am indebted to David Sobel, who has kindly given permission to its posting on the Osher Map Library website. Mr. Sobel is Senior Faculty in the Education Department at Antioch University New England in Keene, New Hampshire and the author of *Mapmaking with Children: Sense of Place Education for the Elementary Years*. Many of the original ideas for this lesson were drawn from Chapter 3 of *Mapmaking with Children*.

1. Learning Objective and Target

In the study of maps, students will observe, analyze, reconfigure, discuss, and understand a three-dimensional model of their classroom and will demonstrate their learning by finding pennies hid around the classroom in places identified on the three-dimensional model with star stickers and by completing a Worksheet regarding a pre-drawn map of a “Joey’s Bedroom”.

Target: I can see when a model is accurate enough to help me find things.

2. Curriculum Connections

This lesson is the first of five lessons about map skills. Students have time each day after lunch and recess to draw anything that interests them. This map skills unit of five lessons will draw on students’ experience and interest in drawing, and in this unit they will be drawing maps.

The Maine Learning Results standard relevant to this lesson is:

Social Studies: D1 - Geographic Knowledge, Concepts, Themes, and Patterns:

Students understand the nature and basic ideas of geography. b. Create visual representations of the immediate neighborhood and community.

The Common Core Standards relevant to this lesson are:

Mathematical Practices, Grades 1 and 2

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. [Model with mathematics.]
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning.

3. Assessment

Pre-assessment: Students were prompted prior to this lesson to “draw a map of your neighborhood” and include “a picture of your house and all the special places around your house where you like to play by yourself or with friends.” Students could include other features if they so wished. I assessed *scope* (the size and range of the student’s world) and *perspective* (the angle from which the student drew the map) to learn how evolved each student is in making maps.

Brief constructed response: Students will discuss what they see when they see the three-dimensional model.

Performance: Students will attempt to locate hidden pennies based on the model and will then revisit the model to add helpful details

Personal communication: I will observe conversations and assess how challenging it may be to find hidden pennies based on the model. I will observe whether:

- Students found the pennies
- Students contributed to adding rods to the model

Selected response: Students will complete a worksheet at the conclusion of the lesson and as homework draw a map of their bedrooms.

4. Modifications Based on Student Profiles & Plans

5. Materials, Equipment

- *My Father’s Dragon* by Ruth Stiles Gannett
- enlarged map of Wild Island
- *Where Do I Live* by Neil Chesnow
- Sufficient Cuisenaire rods to make a three-dimensional model of our classroom
- Small colored star stickers (at least 20)
- pennies (at least 20)
- Rough Sketch of the Classroom showing where pennies are hid
- “Map of Joey’s Bedroom” (20)
- Worksheets for “Map of Joey’s Bedroom” (20)
- plain sheet of paper for those who may want to draw their bedrooms as homework (20)
- Document camera
- Projector

6. Instructional Strategies

Read-aloud, whole group discussion, working in small groups, self-evaluation, use of document camera to engage visual learners, questioning.

7. Lesson Procedure

NOTE: Throughout this lesson and the four mapmaking lessons to follow, read aloud during reading times *My Father's Dragon*. Affix to a poster board an enlarged map of Wild Island and ask students to identify sites represented on that map as the story progresses.

NOTE: Before students enter the room, hide the pennies and note their location of the Rough Sketch of the Classroom.

10 minutes:

Activator: Using the document camera and projector, read *Where Do I Live* up through the description of neighborhoods. Share with students my description of my room, house, yard, street, and neighborhood.

Questions:

- What do you remember you drew on your neighborhood maps the other day?
- What did you most enjoy showing on your map and why?

30 minutes:

In the middle of the classroom, with students standing and sitting in front of me, use Cuisenaire rods to silently lay out the boundaries of the classroom, including the location of doors, tables, and the easel. Purposely leave out some things for students to fill in later. The model will be at least three feet square. When the model is as complete as I want to make it, ask the students to sit in a circle around the model.

Question:

- As you look at this model, what do you see?

Explain that a model is like a copy of the real thing only smaller

Question:

- What other examples of models have you seen?

Point to parts of the model and have individual students stand up and walk over to the object represented in the model.

Explain that pennies have been hidden in the classroom and put stars on the model to represent where they are. One student at a time searches for a penny.

Question:

- How did you know where to look?

Ask students to close their eyes and re-hide pennies and affix stickers and redo the exercise.

Bring the children back to attention on the model

Question:

- What things aren't shown on the model?

Place a rod incorrectly to show what a student says is missing.

Questions:

- Have I placed it correctly?
- Who wants to add something to the model but not tell anyone for now what you want it to represent? Can you position it now?
- [to the others] What is it?
- Do a "thumbs-up/thumbs-to-the-side" self-assessment with the students.
 - Did you find a penny?
 - Did you understand what the model represents?

10 minutes:

Distribute copies of "Map of Joey's Bedroom" and the accompanying Worksheet and ask students to complete it and return it to me.

- Do a "thumbs-up/thumbs-to-the-side" self-assessment with the students.
- Did you complete the Worksheet?
- Did you understand the map of Joey's bedroom?

Homework: Draw a map of your own bedroom.

Instructions for Ed Techs, Aides, parents, other adults