Mapping the Bears’ Cottage: Learning to Create and Use a Map with a Legend

Students learn about bird’s eye view and mapmaking from using two beloved tales.

Author: Kathy Knowler
Grade Level: K-2
Duration: 2 class periods

National Geography Standards

ELEMENT ONE: THE WORLD IN SPATIAL TERMS
1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Arizona Geography Strand

CONCEPT 1 World in Spatial Terms
KINDERGARTEN
PO 2 Construct maps of a familiar place (e.g., classroom, bedroom, playground, neighborhood)
GRADE 1 and 2
PO 3 Construct maps of a familiar place including a title, compass rose, symbols, and map key/legend.

Other Arizona Standards

Mathematics Common Core Standards
Geometry
K.G.2. Correctly name shapes regardless of their orientations or overall size.
K.G.5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
1.G.1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
2.G.1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

Overview

Every map contains information to orient the reader such as a title, compass rose, and legend. It is important for students to begin to gain an understanding of basic map skills at an early age.

Purpose

In this lesson, students will use geometric shapes to make a map that includes a title, symbols, compass rose and legend.

Materials

- 3 chairs of different sizes, 3 towels or pillows to represent 3 sizes of beds, 3 bowls, and a table. (Doll furniture would be adequate.) A rug or piece of paper to represent the bears’ cottage.
- A copy of the Goldilocks story or knowledge of the story so that it can be told from memory.
Mapping the Bears’ Cottage

- A copy of The Three Little Pigs story or knowledge of the story so that it can be told from memory.
- Paper cut in the shapes of bowls, table, chairs, and beds as seen from above.
- Goldilocks Map and legend for each child (teacher drawn) It should consist of rectangles for beds, circles for bowls, squares for tables, and another shape for chairs.
- Tape
- Assessment checklists for kindergarten and grades 1-2
- Classroom Map and Classroom from Above (teacher drawn) It should consist of rectangles for beds, circles for bowls, squares for tables, and another shape for chairs.
- Goldilocks Map and legend for each child (teacher drawn)

Objectives

The student will be able to:

1. Demonstrate understanding of the use of shapes to represent objects on a map.

2. Create a map that demonstrates knowledge of shapes and map representations.

3. Explain or show the need for a legend and title when making a map.

4. Gather information using the legend and the map.

Procedures

Prerequisite Skills: Students can do Shape of My World: Mapping a Classroom to learn bird’s eye view and learn basic mapping skills. This lesson is found in GeoMath.

SESSION ONE

1. Read or re-tell the Goldilocks story.

2. Arrange the furniture to represent the Bears’ cottage. Have the children locate and name the various items such as Papa Bear’s chair, Baby Bear’s bowl, and Mama Bear’s bed.

3. Indicate to the children the directions in the classroom and the bear’s house (north, east, south and west).

4. Discuss with the children about how the bear’s furniture would look from above (bird’s eye view). Explain that mapmakers often use shapes to represent objects on a map. Discuss why a rectangle shape would be a good way to represent a bed and a circle would be a good way to represent a bowl. Decide the appropriate shape for the table and chairs. Again the maps from Shape of My World: Mapping a Classroom on the GeoMath CD would be helpful to explain this concept.

5. Using the Goldilocks Map and legend, ask them which direction is north and orient the paper so north matches the bears’ cottage. Draw the compass rose on the map and explain what it means and how to use it.

6. Display a piece of paper cut in the shape of the table. Have a volunteer place it on the map and tape it. Do the same with the other items until a map of the bears’ cottage is created.

7. When the map is complete have the children come up with an appropriate title.

8. Explain that a stranger looking at the map might not understand what the shapes represent and therefore students need to create a legend to explain each shape. Demonstrate how to make a legend. Have the children tell which items are needed.

SESSION TWO

9. Read or tell the Three Little Pigs story.

10. For kindergarten students: ask them to name five items that would need to be included in the
Mapping the Bears’ Cottage

The Little Pigs story map would be an independent assessment. Here the children would use the map and legend that they created to answer questions about the Pigs’ houses. Use the observation sheet to record their answers. Rate the students as excellent, good or need improvement.

Extensions

Have the children create a map of their bedrooms using shapes and include a legend, title and compass rose.

Sources


Assessment

11. Ask the children to use the legend from this map to answer questions about the pigs’ homes.

Questions:

- In which direction is the house of sticks from the brick house?
- In which directions did the little pigs run after the wolf blew each of their houses down?
- What is the shape of each of the houses?
- How many sides does each shape have?
- Where are your triangles? Where are your rectangles? Etc.

For Grades 1-2 students, give the children a piece of blank paper on which to make a map of the Three Little Pigs’ houses and the wolf’s path after they have listened to the story. Tell them to use triangles, squares, rectangles, and circles (1st grade) and other shapes for (2nd) for their symbols.