

Where Are the Treats?

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Grade Level	1
Duration	1 class period

National Standards

GEOGRAPHY Element 1:

The World in Spatial Terms

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

AZ Standards

MATHEMATICS

Geometry

1.G.A.2. Compose two-dimensional shapes or three-dimensional shapes to create a composite shape.

Arizona Social Science Standards

GEOGRAPHY

The use of geographic representations and tools helps individuals understand their world.

1.G1.1 Use, explore and construct maps, graphs, and other geographical representations to support content focus.

Overview

Maps give a visual presentation of the relative position of items in a room. Students can use this map to locate items or plan for additions or subtractions to the classroom.

Purpose

In this lesson, students will make a map of their classroom. They will use various shapes including at least one composite shape to represent classroom items on a map. The map will also show the path a dog travels in search of his treats.

Materials

- Paper shapes: circle, rectangle, square, and triangle.
- A pre-made map of the classroom which shows the door, one or two important landmarks, and is oriented with north at the top.
- Dog treats (or crackers) that are in varying shapes
- Classroom map
https://geoalliance.asu.edu/sites/default/files/maps/Classroom_b.pdf
- Bird's Eye View of a Classroom map
https://geoalliance.asu.edu/sites/default/files/maps/Classroom_c.pdf
- Projection device

Objectives

The student will be able to:

1. Identify the following shapes: circle, square, rectangle, and triangle when they are shown.
2. Compose composite shapes as needed for their maps.
3. Draw a map of the classroom with a legend.

Procedures

1. Begin the lesson by showing the students each paper shape. Ask the students to name the shape and describe the attributes (size and number of sides) of each shape.
2. Have the children stand and look down at their desk and identify the desk's shape from above. Do the same for a chair, the classroom rug, a shelf, or other large furniture in the room.
3. Now show the students how two shapes can be put together to make a new shape to look like an object. (rectangle plus a triangle could be dog treat container or cookie jar) (2 squares with a rectangle between could be bookends and a book) (4 squares making a rectangle could be a file cabinet) Have students look for other ideas.
3. Project the Bird's Eye View of a Classroom map https://geoalliance.asu.edu/sites/default/files/maps/Classroom_c.pdf and discuss. Then then project the Classroom Map https://geoalliance.asu.edu/sites/default/files/maps/Classroom_b.pdf and have them describe how the maps are different. Explain that mapmakers use shapes on a map to represent items in the world.

Where Are the Treats?

The squares might be desks. The lines might be roads.

4. Show the students dog treats (or crackers). Ask the children to identify the shapes.
5. Tell the students that dogs have an excellent sense of smell. If somebody places dog treats around the room, the dog could use his nose to go from one treat to the next.
6. Have the class suggest 4 places to put the treats and the route the dog would take to get from the door to each treat (ex: across the rug to the first table, back to the shelf, and behind the wastebasket).
7. Explain to the students that they are to make a map to show the dog's path. Tell the class to use bird's eye view and map the room with shapes they see from above. Model by drawing the classroom shape on the board or on a large piece of paper. Show them how to orient it with north at the top. Have the students name the important pieces of furniture the dog will pass in order to get to the first table and what shape these pieces of furniture would be from above. For example, the rug might be 8 large squares forming a rectangle, and then the first table is a small rectangle.
8. As the students describe the furniture and their shapes, draw them on the map. Continue with the items the dog will pass in order to get to the shelf – perhaps two more rectangular tables, and then to the round wastebasket. Then he will pass another

rectangular table (made of 3 squares), and a square table. Make sure you clearly draw the path the dog will take through the classroom to find the treats.

9. Distribute drawing paper to students (or groups of students) and have them copy your classroom map outline with its shapes. Instruct them to add additional shapes. At least one shape must be a composite of two other shapes. They must also include the path the dog will take to get the treats.
10. If students are capable, have them label the shapes as to rectangle, square, circle, etc. Or students can color code the shapes (red = square) and create a map key showing what the colors mean.

Assessment

Mathematics and Geography

The maps can be graded using the Map Assessment Rubric. Mastery will be considered a score of 16 points or higher.

Extensions

This activity can be done in conjunction with a science activity on the characteristics of dogs or mammals emphasizing their sense of smell. If it is permitted in the school, bring a dog and watch where he actually goes as he retrieves treats.