Squaring Off the Regions
Students identify the US geographical regions.

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<td>Grade Level</td>
<td>4-5</td>
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<tr>
<td>Duration</td>
<td>2 class periods</td>
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**National Geography Standards**

**ELEMENT ONE: THE WORLD IN SPATIAL TERMS**

3. How to analyze the spatial organization of people, places, and environments on Earth's surface.

**ELEMENT TWO: PLACES AND REGIONS**

4. The physical and human characteristics of places.

**Arizona Geography Strand 4**

**CONCEPT 1**

**World in Spatial Terms**

**GRADE 4**

PO 4 Construct charts and graphs to display geographic information

**GRADE 5**

PO 6 Construct charts and graphs to display geographic information

**CONCEPT 2**

**Places and Regions**

**GRADE 4**

PO 1 Describe how the Southwest has distinct physical and cultural characteristics.

**GRADE 5**

PO 1 Describe how the following regions exemplify the concept of region as an area with unifying human or natural factors:

b. West, Midwest, Northeast, Southeast, and Southwest.

**Arizona Math Standard**

**STRAND 1 Number Sense and Operations**

**CONCEPT 1: Number Sense**

**GRADE 4**

PO 8 Order three or more whole numbers

**STRAND 4 Geometry and Measurement**

**CONCEPT 4: Measurement**

**GRADE 5**

PO 6. Determine the area of figures composed of two or more rectangles on a grid.

**Overview**

Students have a hard time visualizing the size of the universe, our planet, and countries. With this lesson, students gain an understanding the size and unique complexity of U.S. geographical regions.

**Purpose**

Students will learn to calculate the size (square mileage) of each of the U.S. geographical regions: West, Southwest, Southeast, Midwest, and Northeast, and will translate this into an understanding of relative size. Students will be able to identify important geographical features of different regions.

**Materials**

- 5 pieces of 8-1/2" x 11" colored paper with a photocopied grid pattern. Suggested colors: 1 green, 1 yellow, 1 brown, 1 pink, 1 dark blue
- Paper, pencil, glue
- Large sheet of drawing or construction paper on which the colored paper grids will be glued
- 1/4" graph paper
- Calculator (optional)
**Squaring Off the Regions**

- Geographical Regions of the U.S.
- Regions of United States map
- Regions of the United States-color (transparency)
- Worksheet and Answer Key

**Objectives**
Students will be able to:
1. Order the square mileage of different states from largest to smallest.
2. Place these ordered states into regional groupings.
3. Identify at least two regional characteristics.

**Procedures**
**SESSION ONE:**
1. Teacher should assign a geographic region to each of 5 groups of students. Students will then rank order the states large to small using the "Square Mileage" fact sheet.
2. Teacher should review the rules for finding the area of an array. (An array is a rectangular arrangement of quantities in rows and columns, as in a matrix.)
3. Allow some guess and check practice, but students should quickly recognize that assigning each square a low value would create impossibly large regional equivalencies. After a few tries, if the class does not arrive at this idea, suggest that each square be assigned a value of 100. Therefore, 100 sq. mi. = 1 sq. This will allow students to create all regions proportionately on a single sheet of paper. (Some regions might require two sheets of paper.)
4. It doesn't matter if the regions have the exact "map" configuration; however, if a group does think about shape, they will be creating a cartogram. Students should work on creating each state in their region out of the colored grid paper by calculating the number of squares needed and then cutting off the correct number of squares.

**SESSION TWO:**
1. Students should assemble the "rectangular" state regions using a US map as a guide. Once again, if they can unite their states in geographical proximity to the real U.S., they will be creating a cartogram.
2. Students should create a legend for their maps and add some distinctive features of each region. An excellent source for information about the regions comes from National Geographic Society Reading Expeditions Series: *Travels Across America* (all five titles: *The West, The Southeast, The Southwest, The Midwest, and the Northeast*). Magazine pictures may be added to the regional to reflect regional characteristics.

**Assessment**
Student work can be graded for math skills by assessing the accuracy of their worksheet where they ordered the states by size. (10 points) Having the students verify that they have the correct number of grid squares in their project can assess the finished product. (10 points) A score of 80% or higher is considered mastery.

Having the students write a paragraph about their region can assess the geography. This paragraph should include the size of their region compared to the other U.S. regions (10 points) and 5 regional characteristics (10 points). A score of 80% or higher is considered mastery or the 6 Traits Writing Rubric can be used especially for the characteristics of organization and ideas. Scoring 4 points or higher on the rubric would be considered mastery.
Squaring Off the Regions

Sources

www.50states.com/(nameofstate).htm to find the square mileage of the different states.

National Geographic Society Reading Expeditions Series: Travels Across America (all five titles: The West, The Southeast, The Southwest, The Midwest, and the Northeast)
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