Arizona Rivers
Students learn about physical features and rivers in the regions of Arizona.

<table>
<thead>
<tr>
<th>Author</th>
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<tr>
<td>Grade Level</td>
<td>4-5</td>
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<tr>
<td>Duration</td>
<td>1 class period</td>
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**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 The World in Spatial Terms**
- **GRADE 4**
  - PO 1 Interpret political and physical maps using the following map elements:
    - c. symbols
    - d. legend
    - e. scale
  - PO 7 Locate physical and human features using maps, illustrations, or images:
    - a. physical (e.g., Colorado River, Salt River, Gila River)

**Concept 2 Places and Regions**
- **GRADE 4**
  - PO 1 Describe how the Southwest has distinct physical and cultural characteristics.

**Concept 1 The World in Spatial Terms**
- **GRADE 5**
  - PO 4 Locate physical and human features in the United States and world on an appropriate type of map.

**Concept 2 Places and Regions**
- **GRADE 5**
  - PO 2 Describe the geographic characteristics of a state in the United States with the assistance of maps, the internet, atlases, and other reference materials.

**Arizona Math Standards**

**STRAND 4 Geometry and Measurement**
- **CONCEPT 4 Measurement**
  - **GRADE 4**
    - PO4 Approximate measurements to the appropriate degree of accuracy

  - **GRADE 5**
    - PO1 State an appropriate measure of accuracy for a contextual situation

**Overview**

Water in Arizona is a magnet to the population settlements. The natural and man-made sources of water support the population and make living in the desert possible.
# Arizona Rivers

**Purpose**
Water sources in Arizona include rivers, lakes, reservoirs, dams, and canals. Students will discover names of Arizona’s major rivers, their locations and their lengths.

**Materials**
- Map of Important Rivers of Arizona
- Map of Important Rivers of Arizona without names of rivers
- Paper, pencil, pins, Styrofoam or cork board
- String, and calculator
- “Arizona Rivers” Math Sheet

**Objectives**
The student will be able to:
1. Interpret a map and locate rivers.
2. Calculate mileage length of each river within the Arizona borders.
3. Calculate the total mileage of rivers in Arizona.

**Procedures**
*Pre-requisites: Students should have experience in reading a map and using a scale to measure. The students should have experience adding large numbers.*

1. Have the class predict how many miles of rivers they think are found in Arizona. Conduct a discussion about how most Arizona rivers are dry and only run when there is rainfall or snow melt. Then give each student a map of Important Arizona Rivers with the rivers labeled.

2. The students should use the scale on the map to measure the length of each river. Students can place the maps on a soft surface such as Styrofoam or corkboard then stick pins along the river path and measure with non-stretching string. Students should then measure the approximate length of the string for the length of each river.

3. Have students list the lengths of each river in miles on the study guide.

4. Have students add the lengths of all the rivers together.

**Assessment**
To assess the math skills, grade the “Arizona Rivers” Math Sheet (Length calculation can allow a 10% deviation.) Each river is worth 2 points and the total is worth 26 points.

To assess the geography content, students should study their maps and then place the names of the Salt, Colorado, and Gila rivers on a blank map. (Each river is worth 5 points and the total is worth 15 points.)

Mastery is considered 80% or higher on each assessment.

**Extensions**
Have the class estimate how many miles of rivers actually have water in them all year round. Students can research which rivers actually have water in them all year long. Compare the lengths of these rivers to the total calculated by the measuring activity.

The lesson can be expanded to include the learning of names for lakes, dams, and reservoirs.

Cities can be added to the map of rivers and the class can discuss the effect that water has on the location of population settlements.

Calculate how long the Gila, Salt, and Colorado rivers are and compare this total to the total of all of the rivers’ lengths.
Arizona Rivers

Sources
ESL Treasure Hunt – Sights of Arizona
http://iteslj.org/th/1/tm-arizona.html

Adventures in Arizona
www.aztriad.com/adventur.html

Arizona Sights Homepage
www.angelfire.com/ia2/arizona