



# A River Through Time: Focus on the Gila River

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**Grade Level** 3-5  
**Duration** 3 class periods

## National Standards

### GEOGRAPHY

#### Element 5: Environment and Society

14. How human actions modify the physical environment.  
16. The changes that occur in the meaning, use, distribution, and importance of resources.

#### Element 6: The Uses of Geography

17. How to apply geography to interpret the past.

## AZ Standards

### ELA

#### Reading Informational Text Key Ideas and Details

3.RI.2 Determine the main idea of a text; recount and paraphrase the key details and explain how they support the main idea.

4.RI.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.

5.RI.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

3.RI.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

4.RI.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

5.RI.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

## Arizona Social Science Standards

### GEOGRAPHY

#### Human-environment interactions are essential aspects of human life in all societies.

3.G2.1 Explain how people modify and adapt to the Arizona environment.

4.G2.1 Compare the diverse ways people or groups of people have impacted, modified, or adapted to the environment of the Americas.

5.G2.1 Describe how natural and human-caused changes to habitats or climate can impact our world.

#### Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.

3.G3.1 Describe the movement of people in and out of Arizona over time.

4.G3.1 Explain how the location and use of resources affects human settlement and movement.

5.G3.1 Use key historical events with geographic tools to analyze the causes and effects of environmental and technological events on human settlements and migration.

#### Global interconnections and spatial patterns are a necessary part of geographical reasoning.

3.G4.1 Describe how Arizona has changed over time.

5.G4.1 Describe how economic activities, natural phenomena, and human-made events in one place or region are impacted by interactions with nearby and distant places or regions.

### HISTORY

#### The development of civilizations, societies, cultures, and innovations have influenced history and continue to impact the modern world.

3.H1.1 Utilize a variety of sources to construct a historical narrative exploring Arizona's cultures, civilizations, and innovations.

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### Integration of Knowledge and Ideas

4.RI.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

### Writing

#### Production and Distribution of Writing

3.W.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.

4.W.4 and 5.W.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

4.H1.1 Utilizing a variety of multi-genre primary and secondary sources, construct historical narratives about cultures, civilizations, and innovations in the Americas.

### Cycles of conflict and cooperation have shaped relations among people, places, and environments.

3.H2.1 Use primary and secondary sources to generate questions about the causes and effects of conflicts and resolutions throughout Arizona's history.

4.H2.1 Describe the cycles of conflict and compromise that occurred in the Americas during the convergence of Europeans, American Indians, and Africans in the Americas before and after European exploration

5.H2.1 Use primary and secondary sources to summarize the causes and effects of conflicts, resolutions, and social movements throughout the historical timeframe.

## SIOP Elements

<b>Preparation</b> Adapting content Linking to background <b>Linking to past learning</b> Strategies used	<b>Scaffolding</b> <b>Modeling</b> <b>Guided practice</b> Independent practice <b>Comprehensible input</b>	<b>Grouping Option</b> <b>Whole class</b> <b>Small groups</b> <b>Partners</b> <b>Independent</b>
<b>Integrating Processes</b> <b>Reading</b> <b>Writing</b> <b>Speaking</b> <b>Listening</b>	<b>Application</b> <b>Hands on</b> Meaningful Linked to objectives Promotes engagement	<b>Assessment</b> <b>Individual</b> <b>Group</b> <b>Written</b> Oral

## Arizona English Language Proficiency Standard

### Grade 3

### Basic

### Listening and Reading

Standard 1 By the end of each language proficiency level, an English learner can construct meaning from oral presentations and literary and informational text through grade appropriate listening, reading, and viewing.

B-1: ask and answer questions by using evidence from a text.

B-2: determine the central topic or message.

B-3: identify key details that support the main idea or message.

### Speaking and Writing

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Standard 3 By the end of each language proficiency level, an English learner can speak and write about grade appropriate complex literary and informational texts and topics.

B-3 compose informational text that includes details to develop a topic while using appropriate conventions.

### Grade 4 and 5

#### Basic

#### Listening and Reading

Standard 1 By the end of each language proficiency level, an English learner can construct meaning from oral presentations and literary and informational text through grade appropriate listening, reading, and viewing.

B-1: determine the central idea (in informational text) and theme (in literary text) and explain how they are supported by key details.

B-2: recount a text including specific details and information.

#### Speaking and Writing

Standard 3 By the end of each language proficiency level, an English learner can speak and write about grade appropriate complex literary and informational texts and topics.

B-3 compose informational text that includes details to develop a topic while using appropriate conventions.

## Overview

The Akimel O'odham (Pima Indians) have for centuries resided along the Gila River in central Arizona. They historically were farmers, using the waters of the Gila to irrigate their crops. Through the use of primary source material, students will investigate the effect that dam construction on the Gila River has had on the lifestyle of the Akimel O'odham.

## Purpose

In this lesson, students will learn how the Akimel O'odham have depended on the physical environment including the Gila River for their existence. They will also learn that technological modifications in one place can lead to changes in other locations by examining the damming of the Gila River and its effect upon the lifestyle of the Akimel O'odham (Pima Indians). This lesson contains adaptations for diverse learners (ELLs).

## Key Vocabulary

**Gila River**- a river in Arizona

**Pima Indians** - a tribe of Native Americans that live in Arizona

**primary source** - a photo, artifact, or document created at the time an event happened

**dam** - a structure built to hold back the water in a river

## Materials

- Pima Territory of Arizona 1700 map  
<http://geoalliance.asu.edu/sites/default/files/maps/PIMA.pdf>
- Arizona's Indian Reservations map  
[http://geoalliance.asu.edu/sites/default/files/maps/AZ\\_Reservations.pdf](http://geoalliance.asu.edu/sites/default/files/maps/AZ_Reservations.pdf)
- Important Dams in Arizona map  
<http://geoalliance.asu.edu/sites/default/files/maps/AZ-DAMS.PDF>
- Timeline and Answer Key
- Markers - 3 colors (preferred blue, brown, red)
- Primary Source Material (readings)
- Student Outline
- Vocabulary Cards
- Highlighters

## Objectives

The student will be able to:

- Record dates and events on a timeline.
- Determine the effects of dam construction on the Gila River Pimas.
- Gather information from primary sources.

## Procedures

*Prior to this lesson: Print a copy of the Pima Territory of Arizona map and mark Florence, Safford, and the Coolidge Dam to use when projecting the map.*

### SESSION ONE and TWO

1. Introduce the lesson by projecting the Pima Territory of Arizona map and locating the Gila River, Florence, Safford, and Coolidge Dam on the map.  
<http://geoalliance.asu.edu/sites/default/files/maps/PI>

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[MA.pdf](#) Introduce the Akimel O'odham (Pima Indians) as living in this area and locate their area of residence both historically and today on Arizona's Indian Reservations map.

[http://geoalliance.asu.edu/sites/default/files/maps/AZ\\_Reservations.pdf](http://geoalliance.asu.edu/sites/default/files/maps/AZ_Reservations.pdf) (**Preparation: Linking to background, Scaffolding: Comprehensible input**)

2. Introduce the vocabulary words by using picture cards or projecting the vocabulary cards.

**(Scaffolding: Comprehensible input)** Explain that the Pima Indians lived in this area both long ago and today. They were and are still farming crops using water from the Gila River.

3. Review the meaning of a primary source.

4. Project and distribute the Primary Source Material and the Student Outline. Explain that they will be reading some descriptions of the Pimas from people who visited them or lived with them. These descriptions are called primary sources. As a whole class, read the historical descriptions of the lifestyle of the Pimas and the Gila River environment in the primary source material. Explain terms as needed.

**(Scaffolding: Comprehensible input)** Students should highlight the vocabulary words as they appear in the primary source material.

**(Application: Hands on)**

5. After reading about each time period, have the class share what they learned about the Pimas and the Gila River by completing as a class the Student Outline. Model how to complete each section by projecting your copy and filling in student contributions. **(Scaffolding: Modeling; Grouping Option: Whole class, Independent; Integrating Processes: Reading, Writing, Speaking, Listening)**

6. Distribute the Student Summary Worksheet. Based on the vocabulary words highlighted and class discussion, have students circle the correct answer (yes or no) on the Student Summary Worksheet for that time period. This can be done in partners or as a small group. **(Grouping: Partners, Small groups)**

### SESSION THREE

7. Begin this session by projecting the Important Dams in Arizona map

<http://geoalliance.asu.edu/sites/default/files/maps/AZ-DAMS.PDF> and discussing the number of dams on the Gila River as well as other dams in Arizona.

Discuss the effects of dams and link back to the information learned in the earlier sessions.

**(Preparation: Linking to past learning)**

8. Using their highlighted Primary Source Material and their Student Summary Worksheets have students create a timeline using three colors for the legend/key. Blue will be drawn from letter to letter to

show the river had water and the Pimas grew corn, wheat, and beans (**yes to yes**). Brown will be used to show the river had no water and the Pimas could not grow corn, wheat, and beans (**no to no**). The date of the event should be at the top of the box that will be also be colored blue or brown. **(Application: Hands on)** Teacher can model with the first section of the timeline (A to B) so students can see how theirs should look. **(Scaffolding: Modeling)**

9. The third color (red) will be used to mark the vertical line on the timeline, the building of the dam that stopped the water. The words "dam built" is written below the vertical line. **(Application: Hands on)**

10. Using their timeline and information from the class discussion, have students draw pictures and dictate/write statements as captions summarizing what they learned about the effects of the damming of the Gila River on the lifestyle of the Pimas. The drawing should include three parts: the first showing that the Pimas grew crops by the river; the second showing a dam was built on the river; and the last showing no water in the river and the Pimas without crops growing. **(Assessment: Written, Individual or Group)**

## Assessment

### Social Science and ELA

The Student Outline can be scored for completion. Mastery will be considered a score of 90% or higher since the work was modeled by the teacher.

The timeline can be graded for correctly identifying key events, dates, and coloring. Mastery will be considered a score of 80% or higher.

The Student Summary Worksheet can be graded for correct answers. Mastery will be considered a score of 80% or higher.

## Extensions

Share this *New York Times* article about the effects of water loss on the Pima diet and health and how the return of water is hoped to bring changes.

<http://www.nytimes.com/2008/08/31/us/31diabetes.html?mcubz=2>

Students can record the history of the Gila River on a paper calendar stick using symbols for crops, fish, trees, animals, flowing water/lack of water.

Students can look at other Arizona rivers that were dammed and complete an inquiry as to "What are

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the positive and negative affects to damming rivers?"

### Sources

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