

# \* LESSON PLAN \*

# A2. Why is the Santa Cruz River Important?

Understanding the importance and history of the Santa Cruz River as a critical cross-border waterway

Renee F. Tossell

### Lesson Plan for U.S./Arizona History (High School Level)

#### **Applicable Arizona History and Social Science Standards**

History and Social Science Standards available as PDF documents by grade band on the Arizona Department of Education website<sup>1</sup>

Grade Band
9-12 (High
School)

- **HS.SP1.3** Evaluate the significance of past events as they relate to their own lives and the world.
- **HS.E2.1** Explain how scarcity results in economic decisions and evaluate their impact on individuals, institutions and societies.
- HS.G2.4 Evaluate the use and sustainability of natural resources.

<sup>&</sup>lt;sup>1</sup> "Arizona History and Social Science Standards," *Arizona Department of Education* (https://www.azed.gov/standards-practices/k-12standards/standards-social-studies)

#### **Lesson Objectives**

- Students will discuss the historical impact of humans on the Santa Cruz River watershed over the centuries.
- Students will use the key terms to describe the environmental problems occurring from over-pumping groundwater.
- Students will explain the efficacy of the waste water treatment plant in improving the overall health of the water and environment it sustains.
- Students will define the geographic region that encompasses the Santa Cruz River.

#### **Learning Outcomes**

- Students will orally describe the importance of the sustainability of the Santa Cruz River as a vital natural resource for people, flora and fauna. This outcome will be provided through audio visual teaching aids, a verbal class -wide question and answer period and eventual in class essay response.
- Via readings and in-class discussion, students will be able to reflect upon the history of
  the Santa Cruz River, problems of resource sustainability, corrective action and its
  contributions to solving a century wide problem for a healthier environment.
- If **audio visual teaching aids** are utilized, students will be able to see that it takes a community wide effort and good stewardship to replete the watershed.

#### **Duration of Lesson:**

One Day of a 55 minute Class Period (High School Level social studies period)

#### **Supplies Needed**

- Research Article "A2. Why is the Santa Cruz River Important?"
   (https://beyondfronteras.org/nogalepedia/a/a2-why-is-the-santa-cruz-river-important/)
- Notebooks and Writing Utensils OR Student Laptops
- o Teacher's Computer and Overhead Projector
- Beyond Fronteras sign-in sheets (optional)

#### Student Deliverables for Measuring Student Learning

The compendium of the eventual in-class essay could represent the students' deliverable by recording the data onto a paper copy or submit an MS Word Google Document with their name at the end of class.

#### **Brief Lesson Plan Developer Bio**

Renee Tossell is currently serving as a volunteer Archaeologist with the Rio Rico Historical Society.



# \*\*\* Lesson Plan \*\*\*

#### **Pre-Lesson Activities**

Time Required	Description of Activities
10-15 Minutes	As the students enter the class the theme written on the white board will
	be; "The Santa Cruz River: Jewel of the Desert." At the beginning of the
	class, the teacher will ask the class what they know about the importance
	of the Santa Cruz River. Using AV equipment and the PowerPoint
	presentation provided, the instructor will provide a brief overview of the
	research article emphasizing the history and conservation of the Santa
	Cruz River.
	The PowerPoint should make ample use of visual aids to help ELL
	students and students with special learning needs. The instructor should
	encourage the students to take notes during the PowerPoint and to pay
	attention to the key terms and concepts. Following the power point a brief
	question and answer period should ensue.

## **Main Lesson Activities**

Time Required	Description of Activities
10-15 min	Use the article "A-2: Why is the Santa Cruz River Significant?"
	(https://beyondfronteras.org/nogalepedia/a/a2-why-is-the-santa-cruz-
	<u>river-important/</u> ) as a reading activity. When reading the article, students
	to reflect on the issues of water conservation and ways to be a good
	steward of the waterway.

# The teacher will ask the class to write a 3 paragraph essay addressing the 25 Minutes following questions: 1. What practices can you and your family members do to conserve water more effectively? (Landscaping with desert plants might be a consideration here and one that was not discussed in the power point.) 2. Now that the Santa Cruz River is recovering and people are beginning to enjoy waterside activities, what responsibilities should be a priority for those who are using it? 3. Using a few of the key terms, describe how the aquifers are recharged and the danger of "over drafting." What kinds of effects might there be on the Santa Cruz River with climatic change in the world today? Emphasis should be placed on the Key Concepts and Key Terms at the beginning of the article for future reference.

#### **Post-Lesson Activities**

Time Required	Description of Activities
	Five minutes before the end of class remind the students to finish up their
	essay by making their final remarks. As the class adjourns, students will
5 Minutes -	either email/submit their electronic documents or will submit their
Class ends	handwritten paper essay to the teacher on their way out from the
	classroom.
CLASS ENDS	

## A Thank You to Our Santa Cruz County Teachers!

Thank you for your consideration of our K-12 local history curriculum!

# Thank you for making history with us!



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