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This 9-unit curriculum guide for 4th grade includes activities relating to the cultural and environmental history of southern Arizona, specifically the area known as the Pimeria Alta. The guide was designed by a group of teachers to be thematic and sequential, and to deal with the encounters of various cultures that are the history of the Santa Cruz Valley. The thematic skills included are: Arizona history; social studies; environmental science; multicultural education; art; critical thinking; mathematics computation; and drama. The units can be taught individually, but if used sequentially they will give the students a solid background on the cultural and environmental impacts the various cultures had on each other and on the Santa Cruz Valley. Each unit is composed of three sections: historical (covers the people, their history and culture); environmental (pertains to the natural environment, biological and natural sciences); and tying it together (deals with how the environment affected the people and how the people affected the environment). Each of the three sections contains one or more activities, resources, references, background information, and a vocabulary list. Extra materials such as readings, worksheets, or visual aids are given at the end of each section and are to be used in the actual teaching of the lesson. (BT)
“Encounters”
Fourth Grade Teachers’ Guide

Tumacácori National Historical Park
P.O. Box 67
Tumacácori, AZ 85640
http://www.nps.gov/tuma/Ed_Resources.html
## Encounters Fourth Grade Teacher's Guide

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ENCOUNTERS
Fourth Grade Teacher's Guide

On a crisp, cool morning, several teachers from the Santa Cruz Valley area met with representatives from Tumacácori National Historical Park, Tubac Presidio State Historic Park, and the Pimeria Alta Historical Society. The group gathered to begin work on a thematic, sequential teachers' guide dealing with the encounters of cultures in our area. We didn't want to write a textbook. We wanted an alternative; something that would give teachers background, knowledge and resources, and still be open ended. It was important that it be "teacher friendly."

The ENCOUNTERS teachers' guide offers an alternative to a textbook on Arizona. It has more information, resources and activities than we, as teachers, could hope to use in any given year. In addition, the "Encounters Box," which is available in local school libraries, supplements the guide with other activities, books, videos and tapes. The Units are sequentially ordered to cover all periods of Arizona history, including the O'Odham, missionaries, Apaches, Mexican Americans, and Anglos. The thematic skills included are: Arizona history, social studies, environmental science, multicultural education, art, critical thinking, math computation, and drama. The units can stand alone, but if used sequentially, they will give the teacher and students a solid background on the cultural and environmental impacts the various cultures had on each other and on the Santa Cruz Valley.

For additional information regarding this curriculum, contact Roy Simpson, Interpretive Specialist at Tumacácori National Historical Park. Or, you may contact him by email at Roy_Simpson@nps.gov.
INTRODUCTION

Using the Teachers' Guide

The ENCOUNTERS Fourth Grade Teachers' Guide is organized into nine units covering the various cultures that are the history of the Santa Cruz Valley. The units can be used sequentially as written, or individually. Each unit is composed of three sections:

- **Historical:**
  - covers the people, their history and culture.

- **Environmental:**
  - pertains to the natural environment, biological and natural sciences.

- **Tying it Together:**
  - deals with how the environment affected the people, and how the people affected the environment.

Each of the three sections contains one or more Activities, Enhancement, and Resources and References. Most also contain Background Information, a Vocabulary list, and other resources available in the Encounters Box (□). An example and description of the format used in these sections follows, on pages iii and iv.

**Master Pages,** found at the end of each section, provide materials to be used in the actual teaching of the lesson, such as readings, worksheets, or visual aids. They may be used to copy for student handouts or as a reference page for the teacher.

* An exception to this section format occurs in Unit IV, Padre Kino. Because this unit is based on the Kino Encounter Classroom Presentation, each theme box will portray a different picture than those shown above.
Format

The symbol box (shown on page ii) indicating whether the section is "Historical," "Environmental" or "Tying it Together" is found in the top left corner beginning each section.

Subjects: Lists subject areas involved in the lesson. Each activity may incorporate a variety of subject areas, such as social studies and physical education or art, drama and science.

Materials: Lists materials needed to complete the activities. All materials are economical and easy to find, often within the classroom.

Preparations: Lists copies to be made, essential reading references, or other preparations for the lesson.

Time: The approximate time needed for each activity is provided in "sessions." One "session" equals 50 minutes.

Vocabulary: A vocabulary list is provided for your own optional use. A glossary is provided on pages viii and ix.

Header: At the top of each page is the title of the section and the page number. Pages are numbered within each Unit, beginning with page one for each. (For example, I - 1 for Unit one, page one, or V - 1 for Unit five, page one.)

Description: Briefly describes objectives and activities included in the section.

Background Information: This information is intended to provide necessary background for the teacher. The information is written to precisely augment the associated activity. Although the contents may be shared with the class, it is not written at the fourth grade reading level.

Encounters Box

References: In some cases, further background information or activities are available in the "Encounters Box" library resource. Resources in the "Box" are within color-coded dividers. Section color and reference titles are listed here. The numbered symbol within the text refers to this listing. Check your school library for a copy of the "Encounters Box" or contact Tumacacori National Historical Park at (520) 398-2341.
**Activity:** One or more activities are provided in each section. They are sequentially listed, step by step.

**Resources and References:** In this box you will find references used in the section, as well as other resources available for your use. Many of the references can be found in the “Encounters Boxes” provided to school libraries or at sponsoring agencies’ visitor centers.

**Enhancements:** In this box are optional extra activities which could be used to expand on the subject of the lesson or to enhance its activities. Be creative—add your own!

**Footers:** At the bottom of each page is a footer with ENCOUNTERS, and the number and name of the unit.
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GLOSSARY

ATV (All Terrain Vehicles) - referring to off-road vehicles such as dune buggies, quads, motorcycles, etc. ATVs are frequently used along the Santa Cruz River.

Acequia/Aqueduct - acequia is the Spanish word for aqueduct or water ditch. The O'odham people used them to transport water to the missions, towns and fields.

Apache - a southwest Indian tribe. Part of the Athabascan language group, the Apaches are believed to have moved into Arizona in the 1300s or 1400s.

Armas - Spanish word for arms or weapons.

Aztec - a Nahuati - speaking people that ruled much of central and southern Mexico before the arrival of Cortez and the Spanish Conquest in 1521.

Banderolas - a type of decoration used in Mexico, similar to pennants or streamers.

Biodegradable - capable of decaying through the action of living organisms.

Bosque (Bow-ski) - Spanish word for woods or forest.

Botas - Spanish word for boots, traditionally made of leather.

Cassock - refers to the robe worn by early missionaries. The Jesuit cassock was black (black robes) whereas the Franciscans wore gray.

Cienaga - Spanish name for a marsh or a swamp; a typical feature of the ancient Santa Cruz River. Today only two exist along the river.

Dichos - Spanish for proverbs or sayings. Commonly used in Mexico.

Dieciseis de Septiembre - A national holiday in Mexico celebrating their claim to Independence from the Spanish in 1821.

Encounter - to meet with another, often in an unexpected or unpredictable way.

Fiesta - Spanish word for party; commonly practiced in Mexico during national, religious and personal celebrations.

Flota - refers to a fleet of Spanish ships.

Immigrate - to come to a country of which one is not a native, usually for permanent residence.

Immunity - the state of being immune or able to resist a particular disease or illness. The early Indians did not have an immunity to the diseases unintentionally brought by the Spanish and many died.

Interpretation - refers to a specific type of education commonly used by Park Rangers, environmental and museum educators. See definition on Page IX - 5

Jesuit - a religious order known as the Society of Jesus (SJ). The order was founded by Ignacious Loyola in the 1550s.
Kiaha - O'odham for a cone-shaped carrying basket.

Kompalt - O'odham for Godfather.

Kamult - O'odham for Godmother.

Mano y Matate - Spanish words for grinding stone or large mortar and pestle.

Mission - a frontier establishment established by the Spanish Crown in which Roman Catholic missionaries were sent to the new world to educate and convert the Indians. Although many missions had elaborate churches, many never had a church structure.

Missionary - a person sent into an area to do religious or other work that promotes the well-being of the people they work with.

Mono Crop - referring to a type of agriculture where only one crop is planted, like cotton or corn.

Nde - the name used by Apaches to refer to themselves.

O'odham - the name the Pima people use to refer to themselves. Two main groups of O'odham people live in Southern Arizona, the Akimel O'odham (Pima, river people), and the Tohono O'odham (Papago, desert people).

Padre - a Spanish word meaning priest.

Pimeria Alta - (Upper Pima Lands) the geographical area where the O'odham lived from Magdelena, Mexico, to the Gila River near Phoenix.

Presidio - a Spanish military garrison where soldiers and their families lived.

Ramada - Spanish word for arbor or shade structure.

Revolt - to break away from or rise up against an authority. The O'odham revolted against the Spanish in 1751.

Riparian - refers to that part of the landscape where the plants and animals are under the direct influence of water, both above and just beneath the ground. Riparian areas in Arizona provide the same benefits to wildlife and people that wetlands do in other parts of the country. Because of the scarcity of water in Arizona, riparian areas are much less common and therefore, more important. Some riparian areas have water in them year round; others only have water in them when it rains.

Stereotype - a simplified or standardized image of a people held by another group of people.

Tapizque - name given to Indians taken by the Spanish to work in the mines.

Tumacacori - O'odham word meaning place of the flat rocks or flat rocky place.

Vaquero - Spanish word for cowboy.

Viceroy - refers to a Spanish government political position (similar to a governor in the United States).
Visita - a mission site in which the priests visit periodically, maybe two to three times per year.

Wickiup - name for a traditional Apache house.
OVERVIEW: Students will explore the O’odham culture by participating in a variety of experiential activities, including an O’odham language lesson and role playing daily tasks such as food preparation, tattooing, games, mat making and pot making.

**Why the Santa Cruz?**

OVERVIEW: Through a two-part exercise of studying maps and graphing rainfall and temperature patterns, students will learn how environmental conditions affected human settlement patterns in the Pimeria Alta.

**Create an O’odham Village**

OVERVIEW: Students will use their knowledge of cultural needs and climate restrictions to place a fictional village in the prehistoric Santa Cruz valley. They will describe the advantages of their site, and draw a sketch of the village.
DESCRIPTION: STUDENTS WILL EXPLORE THE O'ODHAM CULTURE BY PARTICIPATING IN A VARIETY OF EXPERIENTIAL ACTIVITIES THAT INCLUDE AN O'ODHAM LANGUAGE LESSON AND ROLE-PLAYING VARIOUS DAILY TASKS SUCH AS FOOD PREPARATION, TATTOOING, GAMES, MAT AND POT MAKING

O 'ODHAM VILLAGE LIFE

BACKGROUND INFORMATION:

The people who lived along the Santa Cruz River when first contact with the Spanish was made were called the Sobaiipuri, a branch of the O'odham or Pima people. Their agrarian culture revolved around the resources of the Santa Cruz and San Pedro Rivers, farming corn, beans and other crops while augmenting their diet by hunting and gathering. Due to disease, intermarriage and deaths from Apache attacks, the name Sobaiipuri is no longer heard. Their descendants, however, live on and are known as the O'odham people.

The present-day O'odham living in close proximity to the Santa Cruz River are the Tohono O'odham (Papago) or desert people, and the Akimel O'odham (Pima) or river people. Because the Sobaiipuri were a river-based culture, it can therefore be assumed that their traditions are closer to the northern river-based Akimel O'odham people. However, traces of both the desert (Tohono) and river (Akimel) cultures influenced the Sobaiipuri.

The O'odham nation consists of various smaller tribes of subgroups, including the above mentioned Akimel and Tohono groups. Their native language and customs are similar yet distinctly different giving each branch its own uniqueness. They believe themselves to be descendants of the ancient Hohokam civilization or "those who came before." Their culture is rich and colorful and many participate in traditional activities such as those described in this unit. Keep in mind, however, that the information provided is based on the past Sobaiipuri people and not the present-day O'odham. Although there may be similarities, the present-day O'odham is distinctly different than the ancient culture as described in this unit.
Naming an O'odham Child

"Before a child is a year old, it is named by friends of the parents in the following manner: the friends, or godparents, accompanied by other visitors, come for four successive mornings and seat themselves just before sunrise on the ground before the house in which the child lives. First one and then another of the company holds the child for a moment, but if it is a boy, the kompalt, godfather, repeats a ceremonial speech, passes his hands across the limbs of the infant and holds it aloft to receive the first rays of the rising sun; then he bestows upon the boy the name by which he will be known throughout life, however, nicknames are common and often supplant the baptismal name to some extent. If it is a girl, the kamult, godmother, delivers the speech and gives the name. The parents in their turn reciprocate by naming the children of the couple that acts as godparents to their own.

"From the age of ten until about the time of marriage neither boys nor girls are allowed to speak their own names. The penalty is bad luck in losing arrows in the case of the boys, in losing the rsalika or kiaha stick* in the case of girls.

"The name of a deceased person is not used; he is alluded to as the brother of So-and-So. The word or words in the name, however, are not dropped from the language."

Tattooing

"The O'odham practiced both tattooing and body painting. They usually tattooed both sexes during their adolescence between fifteen and twenty years old. Designs were first outlined in charcoal and the skin then was pricked with needle points dipped in wet charcoal. (Needle points were made by using two to four Prickly Pear or Saguaro thorns tied with sinew and cotton.) They usually tattooed men along the margin of the lower eyelid and with a horizontal line across the temple. Generally they made a band design across the forehead with a traverse series of lines or. . . short vertical zigzags. Like the men, they usually decorated the women along the margin of the lower eyelid. Two vertical lines pierced on each side of the chin ran from the top to the lower portion of the jaw. On occasion these two lines were connected under the lip with a band design. Painting was used to emphasize the tattoos."

Games

Games were traditionally separated by sex. It was a cultural taboo to mix sexes. Only boys played the Pima Stick Game. The same would apply for an activity like food preparation, done only by women. Both sexes, performed duties such as tattooing and pottery, although most likely males and females worked apart.

* The kiaha was a carrying basket -- a very important personal item for a girl. The "stick" referred to is a part of the basket which supported the basket for loading.

ACTIVITY

Part I - The O'odham Language
In this lesson, students are introduced to O'odham culture through a language lesson learning to speak a few words in O'odham.

- Speaking only O'odham and not English, introduce the following greetings on Master Page I - 5: Shup Pi Mas Ma? (How have you been?) Shap Kaij? (What do you say?); Pi has (Nothing really), Shap cheegig? (What is your name?) John bun cheegig. (John is my name.) Thvum nui. (I'll see you again.)

- Introduce O'odham language phonetics to your class (see Master Page I - 5) In doing so you will also be reviewing English (all O'odham consonants are the same as in English) and Spanish (vowels and pronunciation are the same as in Spanish except the “e” which is pronounced as you would the “u” as in put).

- Master Pages I - 6 and I - 7 contain a list of O'odham names. Use the list to create individual name tags or cards and distribute them, one per student. Keep a copy of all names as a teacher reference.

- Take roll-call in the O'odham language: 1) Explain to the students your intention to take roll-call in O'odham. 2) Teach the response, “haichug” (present). 3) Call out each name in O'odham. Each student then replies by saying “haichug” and repeating their new O'odham name.

- Ask students to practice their new O'odham name with other classmates. Consider expanding this lesson to teach counting and colors (see Master Page I - 5).

Part II - O'odham Village Life
- Introduce aspects of O'odham village life by teaching at least two of the following activities. Consider setting up stations and have students rotate.*

(Maintadam) Mat Makers - Traditional activity for females. Use the instructions on Master Page I - 8.

(Haha'um Nuatodam) Pot Makers - Traditional activity for both male and female. Use the instructions on Master Page I - 9.

* NOTE: The Ranger-led “Encounters” classroom presentation (See Unit IV) involves having students role-play O'Odham people in a village setting which they will create. Students, therefore, will need to be somewhat knowledgeable of each of these activities.
(Cheposig) Tattoos - Traditional activity for both male and female. The O'odham practiced both tattooing and body painting. They usually tattooed both sexes during their adolescence between fifteen and twenty years old. Painting emphasized the tattoos. Using washable paints or markers, have each student paint a classmate's face following the patterns shown in Background Information and on Master Page I - 10.

(Chichvidam) Game Players- Traditional activity for males. Have students play Ginz, the Pima Stick Game. The game is in the Encounters Box, or you can create your own game with craft sticks, using the instructions on Master Page I - 12 as a blueprint.

(Hihidodam) Food Preparers- Traditional activity for females. Allow students to take turns grinding beans or corn. The traditional food was mesquite beans, which can be gathered easily around the Santa Cruz Valley in late summer and early fall. Corn is also traditional. The O'odham ground their grain on a mano and metate (mortar and pestle) which are still commonly used in Mexico. If not available, find a flat rock to use as a mano (pestle) and use concrete or pavement for the metate (mortar). (Do not use any of the finished product for consumption!)

RESOURCES AND REFERENCES


Enhancements

- Use the O'odham recording from the Encounters Box, red section, to teach the language lesson. The recording includes readings of "An O'odham Language Lesson," Master page I - 5, the story "When the Three Quail Stole Coyote's Fat" (text in Encounters Box), and O'odham songs.
- Select a small area on or near school grounds to create a ramada or an O'odham (Ki) shelter.
- Consider expanding the O'odham language lesson to include counting and colors. (See Master Page I - 5)
- Have students make their own name tags including a sketch of their O'odham name.
- Invite an O'odham person from San Xavier, Sells or the Gila River Reservation to speak to your class or school.
AN O'ODHAM LANGUAGE LESSON

Greetings

How have you been? (usual greeting)  
Shap ai Masma?

What do you say? (informal greeting)  
Shap Kaij?

Nothing really.  
Pi has.

What is your name?  
Shap chegig?

John is my name.  
John bun chegig

How have you been this evening?  
Shap ai masma ida hudunk?

I'll see you again. (used like goodbye)  
Tom ñei.

Vowels: All vowels are the same as in Spanish except “e” which is pronounced like the “u” as in P U T. All of the consonants are the same as in English.

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Numbers

1. Hemako
2. Gook
3. Vaik
4. Giik
5. Hitasp
6. Chudp
7. Veva’ak
8. Gigi’ik
9. Humukt
10. Vestmam

How old are you?  
He’ekia ap ed ahidag?

I am two years old!  
Gook ani ed ahidag!

Colors

Red          s-veg
Yellow       s-oam*
Blue         s-cheedag*
Green        s-cheedag*
Black        s-chuk
White        s-toha
Gray         s-koomag
Brown        s-oam*
Orange       s-oam*
Like this    hab mas ma*

That is white. Heg 'o s-toha.
This is red. Id ‘o s-veg.
*Many colors have the same name and are distinguished by comparisons.
For Example: “This shirt is orange like the sun.” Ida kamish 'o ye s-iarn tash vepo. “It is orange like this.” Goa s-oam ehta ith vepo.
### Traditional O'odham Names for Girls

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<td><strong>Heosig</strong></td>
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<td>MORNING CLOUDS</td>
<td><strong>Sialig Vauseg</strong></td>
<td>MORNING DEW</td>
<td><strong>Shakut O Ne’Eodham</strong></td>
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<td><strong>Chevor</strong></td>
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<td><strong>Chuhug Hevel</strong></td>
<td>NIGHT WIND</td>
<td><strong>MUT HAAHAG</strong></td>
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<td><strong>S-Koomag HaaHag</strong></td>
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<td><strong>Kioho HaaHag</strong></td>
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<td>BIRD'S FEATHER</td>
<td>HAWK SHIELD</td>
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**Plaiting a Mat**

### Materials

- **Black colored construction paper** - cut 1 square measuring 6" by 6"
- **Scissors**
- **Pencil**
- **Ruler**

- **Light - colored construction paper** - cut 8 strips measuring 1/2" by 12" long
- **Contrasting colored construction paper** - cut 8 strips measuring 1/2" by 12"
- **White glue**

1. Draw a line down the center of the 6" square paper.

2. Place 4 of the light-colored strips on each side of the center line leaving a 1/2" edge on each side of the paper square.

3. Place glue 1/2" down on each strip of paper. Glue each strip to the top edge of the paper square.

4. Take one of the contrasting strips of paper and begin to plait, over one under two, over two, under two, over one.

5. Take a second strip of paper and begin over two, under two, over two, under two. Begin the third strip under one, over two, under two, over two, under one. The fourth strip begins under two, over two, under two, over two, under one. Repeat with the remaining 4 strips.

6. Glue the ends of each strip to the edges of the paper square. Cut the strips off that hang over the edge of the square. Many color combinations may be used for this project.
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Coiling a Small Pot

Materials

AARDVARK® gray clay cone .06 - It is not necessary to knead this clay. (Other types of clay may also be used.)

Masking tape - Tape the wax paper square to a fat surface. Run the tape completely across the top and the bottom of the square.

Sandwich bag - Place an 8 oz. piece of clay in the bag. Close the bag after each removal of clay.

Wooden spoon - 3 5/8" craft size

Small bowl - cover just the bottom with water

Smooth rounded stone - or halves of Egggo® egg

Corrugated cardboard - cut a 5" by 7" square

Wax paper - cut a 12" by 14" square

Toothpicks

This pot may be taken to a ceramic shop and fired in a kiln at cone .06. Allow it to dry about a week before firing.

1. Shape and roll a small amount of clay into a ball about 2" in diameter.

2. Flatten the coil of clay between the fingers forming a round patty about 1/2" thick. This is the base of the pot. Place it on the cardboard square.

3. Roll a chunk of clay into rope-like thickness to a length that will fit around the clay base. Roll the clay out on the waxpaper from the middle to the ends using both hands.

4. Dip fingers into the water. Run the water around the edge of the clay base and/or score/scratch with a toothpick. Cut the clay rope or the inside of the edge. Press the ends together.

5. Roll out a second rope of clay. Run water over the top of the first coil and form a second coil. Make sure that the coils do not connect on the same side. The completed pot is about 2" high and 3" in diameter.

6. Use a toothpick to engrave designs on the coils or smooth out the coils using the stone or Egggo® egg on the inside of the pot and patting and smoothing the coils on the outside with the wooden spoon. Be sure the coils are bonded together on the inside and outside of the pot before it is fired.
Personal Dress of the Upper Pima Male

ENCOUNTERS, Unit I, The O'odham

BEST COPY AVAILABLE
Figure 9, page 87 from *The Upper Pima of San Cayetano del Tumacacori*. Charles C. Di Peso, 1956. Courtesy of The Amerind Foundation, Inc., Dragoon, Arizona.
Winter Garb: Women wore a skirt of cotton supported by a woven belt, and a skin shawl over the shoulders. Men wore a cotton skirt supported by a woven belt with a cotton blanket over the shoulders. Children wore a rabbit fur jacket.

Summer Garb: Women wore cotton or skin skirts supported by a woven belt, and nothing above the waist. Men wore either a fringed or a skirt which swung free or was drawn up between the legs. Children wore no clothing.

Winter and Summer Garb of the Upper Ruma of San Cayetano del Tumacacori

ERIC/EDPS, Clearinghouse for the O'odham
Courtes of The Amerind Foundation, Inc., Dragoon, Arizona.
Prehistorically, the northern, or upper, Pima Indian nation covered a large geographic area in what is today Southern Arizona and northern Sonora, Mexico. Their territory ran from the Gila River (near Phoenix, Arizona) on the north to the Sonora River (Hermosillo, Sonora) in the south, and from the Colorado River (Yuma, Arizona) on the west to the San Pedro River (Sierra Vista, Arizona) in the east. They farmed the river valleys, harvested the natural desert plants and hunted in the mountains. In their villages, especially during winter evenings when their farming and hunting activities were limited, they often played games to pass the time. One such game was the "stick game," played on a large "game board" marked out in a square on the ground. Each player moved a pebble around the square. The number of spaces the pebble was moved depended on how the markings on a set of four sticks fell when they were tossed in the air, very similar to the rolling of modern-day dice. The markings on the sticks had names such as "old man" and "old woman." The object was to move the pebble all the way around the square - once or several times - depending on how long they wanted the game to last.

Making Game Sticks

The game sticks can be easily made using craft sticks. Have students draw the lines according to the patterns. (Opposite) Consider having them use a ruler and accurately measure the distance between lines.
Pima Stick Game

Draw a square on the floor or the ground. Make marks for twelve stops (four on each side of the square). If the square is made on the ground, little holes should be dug for each stop. Each player should choose a small rock for a token to move around the square. Players can draw straws to determine who gets to toss the sticks first. The players take turns tossing the sticks in the air to determine the number and kind of moves they will make. This is done by holding the sticks lightly in one hand and hitting the bottom of them with a rock held in the other hand, allowing the sticks to fall as they may. All four sticks have to be used. The order in which the player chooses them will determine how far forward his or her advance around the board will be. On the first toss, it is always wise to choose the backward movement sticks first because one cannot move backwards past the starting point. The markings on the sticks and what they signify are described below. The first player to get completely around the board three times wins.

- FRONT
  - Move one space forward
  - Move two spaces forward
  - Move forward to the end of the row
  - Move backward to the end of the row

- BACK
  - Start Here
  - End Here

ENCOUNTERS, Unit I, The O'odham
DESCRIPTION: THROUGH GRAPHING RAINFALL AND TEMPERATURE PATTERNS, STUDENTS WILL LEARN HOW ENVIRONMENTAL CONDITIONS AFFECTED HUMAN SETTLEMENT PATTERNS IN THE PIMERIA ALTA.

WHY THE SANTA CRUZ?

BACKGROUND INFORMATION:

In the article, "Kino's Unforeseen Legacy," Dr. Sheridan speaks of environmental, economic and social-cultural conditions which were influential in determining the history of the Pimeria Alta. For the O'odham people, the "encounter" with Jesuit Father Kino in the late 1600's was especially significant because of several environmental conditions in their homeland:

ARIDITY: Since most of the Pimeria Alta only gets about five to fifteen inches of rainfall a year, water was a precious and relatively rare commodity.

RAINFALL PATTERNS: The two rainy seasons, winter and summer, have very different characteristics. In winter, rain falls more reliably, and tends to soak the ground in gentle, long-duration showers. Rain tends to fall over a wide area. Since the temperature is cooler, less rain evaporates back into the air before it can be absorbed by the ground or plant roots. Summer, in contrast, brings dramatic downpours that can cause flooding. Summer rains are less reliable than the winter rains and the rainfall patterns tend to be uneven. Some areas get drenched while others remain bone-dry. High summer temperatures can evaporate much of the rain that falls before it has a chance to get into the ground.

RIVER OASIS: The Santa Cruz River provided a very different environment from that found in the "uplands." (uphill and away from the floodplain). Rich soils and shallow groundwater levels allowed dense woodlands of mesquite and other trees to flourish.
in the lowlands, while nearer the river channel, cottonwoods and willows created shady canopies with a lush understory of plants. The river itself flowed all year round in many places (such as Guevavi, Calabasas, Tumacacori, Tubac, and San Xavier), providing reliable water for both animals and humans.

**O'ODHAM ADAPTATION:**
The O'odham were well-adapted to their environment but experienced major resource limitations. They farmed by utilizing floodplains near the river and collection of monsoon rains to water their crops of corn, beans, and squash. Although still debated, they may have brought water from the river to their fields via "acequias" or canals. Besides enduring drought periods, which caused crop failures, they suffered when summer rains were too heavy, washing out their floodplain crops. In addition, the O'odham lacked a winter crop and were forced to gather foods or hunt for survival. Because they could utilize wild foods so efficiently, the O'odham people survived such times, but had to move a great deal to gather enough wild foods to survive, sometimes ranging over great distances just to feed their families.

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**ACTIVITY**

In this graphing activity students will graph and compare the rainfall patterns from two areas: the Santa Cruz Valley and the desert around Tucson.

- Discuss present day weather patterns in the Santa Cruz Valley:
  - When is the hot season? How hot does it get?
  - Is it as hot in the Santa Cruz Valley as it is in Tucson? Phoenix? Why is there a difference?
  - How cold does it get in winter?
  - When is the rainy season? (winter and summer) Does it ever flood?

- Working in teams, have students use the "Rainfall in the Santa Cruz Valley" chart (Master Page I - 16) to make a graph with students plotting rainfall over time. Discuss the following:
  - When does the most rainfall occur? The least?
  - Which rainy season has more consistent rainfall?
  - If you were farmers, which season would be best for growing crops?
- Repeat the graphing exercise with the "Rainfall in the Desert" chart (Master Page 1 - 16).

  - Are there differences between the two rainy seasons?
  - Do you think you could grow corn in the desert? Why or why not?

- Compare both graphs and discuss:
  - Which area received more rain? Why?
  - Based on rainfall, which area would be better to live in if you were a farmer?
  - What year might be a particularly good year for farming? Why?
  - What was the worst year?
  - Which years would a farmer be likely to lose their corn crop if they planted in June or July? Why?

Rainfall of five inches or more in a month would create a flood in summer months; six or more inches for winter months. In years #2, #4, #6, #7 and #8 there occurred corn losses from flooding and in #1 from too little rain.

- What do you think happened to the Pima Indians in year #1?
  They would have to rely on wild foods only, as their crops would have failed.

**Enhancements**

- Use the Project WET groundwater model to examine the underlying groundwater resources in our area and activities related to the river.
- Activity: "Water Wonders," Project Learning Tree (PLT) # 44.
- Use one of the activities or posters from the Encounters Box such as "What is Groundwater," or one of the BLM posters and associated activities.

**RESOURCES AND REFERENCES**

Project WET, (Contact Lin Stevens-Moore at the University of Arizona); Project Learning Tree, 1111 19th Street, Washington, D.C., 20036 or contact Arizona Association for Living in and about the Environment (AALE) at 602/786-9969; "Kino's Unforeseen Legacy," Dr. Thomas Sheridan, Smoke Signal, Issue # 49, 1988.
### Rainfall in the Santa Cruz Valley

**Total Monthly Rainfall in Inches for Tumacacori Weather Station**

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### Rainfall in the Desert

**Total Monthly Rainfall in Inches for Saguaro Weather Station**

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### Temperatures in the Santa Cruz Valley

**Encounters, Unit I, The O'oham**
### MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR TUMACACORI WEATHER STATION

**YEAR** | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC
---|---|---|---|---|---|---|---|---|---|---|---|---
1978 | 66 | 66 | 23 | 74 | 31 | 81 | 30 | 90 | 96 | 102 | 100 | 100 | 57 | 95 | 57 | 92 | 47 | 87 | 42 | 70 | 29 | 62 | 5
1979 | 59 | 59 | 69 | 25 | 70 | 28 | 82 | 31 | 87 | 94 | 100 | 45 | 102 | 56 | 96 | 53 | 99 | 56 | 91 | 32 | 73 | 16 | 72 | 24
1980 | 68 | 68 | 26 | 72 | 29 | 71 | 30 | 82 | 31 | 87 | 35 | 104 | 43 | 102 | 62 | 97 | 57 | 96 | 51 | 86 | 32 | 78 | 24 | 76 | 24
1981 | 69 | 69 | 28 | 74 | 21 | 71 | 31 | 85 | 32 | 88 | 42 | 103 | 53 | 97 | 64 | 96 | 58 | 93 | 50 | 84 | 31 | 81 | 28 | 75 | 19
1982 | 67 | 67 | 22 | 71 | 22 | 75 | 23 | 84 | NA | 89 | 40 | 98 | 46 | 98 | 56 | 96 | 59 | 94 | 44 | 87 | 33 | 72 | 26 | 63 | 21
1983 | 67 | 67 | 22 | 67 | 28 | 69 | 29 | 75 | 26 | 90 | 36 | 97 | 43 | 99 | 54 | 93 | 53 | 91 | 56 | 80 | 45 | 72 | 24 | 69 | 26
1984 | 66 | 66 | 23 | 70 | 22 | 78 | 28 | 80 | 29 | 96 | 38 | 96 | 53 | 92 | 61 | 91 | 59 | 92 | 51 | 78 | 40 | 73 | 21 | 65 | 25
1985 | 62 | 62 | 26 | 68 | 17 | 74 | 25 | 85 | 32 | 91 | 37 | 102 | 44 | 98 | 58 | 95 | 53 | 89 | 47 | 82 | 42 | 72 | 24 | 70 | 22
1986 | 74 | 74 | 22 | 72 | 26 | 77 | 31 | 84 | 32 | 92 | 35 | 99 | 50 | 93 | 58 | 94 | 62 | 91 | 42 | 83 | 35 | 73 | 28 | 66 | 21
1987 | 67 | 67 | 17 | 67 | 24 | 71 | 26 | 82 | 37 | 84 | 38 | 98 | 53 | 97 | 52 | 91 | 54 | 87 | 46 | 85 | 43 | 71 | 23 | 62 | 14

### TEMPERATURES IN THE DESERT

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR SAGUARO WEATHER STATION

**YEAR** | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC
---|---|---|---|---|---|---|---|---|---|---|---|---
1978 | 77 | 32 | 80 | 34 | 90 | 40 | 96 | 38 | 106 | 46 | 111 | 60 | 110 | 67 | 104 | 67 | 102 | 55 | 100 | 50 | 86 | 38 | 78 | 21
1979 | 74 | 30 | 85 | 31 | 85 | 37 | 92 | 39 | 100 | 44 | 114 | 57 | 113 | 68 | 106 | 60 | 108 | 61 | 101 | 46 | 85 | 32 | 82 | 36
1980 | 75 | 35 | 86 | 38 | 79 | 40 | 98 | 40 | 100 | 46 | 114 | 57 | 112 | 63 | 110 | 67 | 108 | 65 | 106 | 46 | 93 | 39 | 87 | 35
1981 | 83 | 37 | 89 | 34 | 86 | 38 | 98 | 39 | 97 | 54 | 113 | 70 | 109 | 67 | 109 | 68 | 103 | 64 | 93 | 46 | 90 | 39 | 85 | 32
1982 | 81 | 31 | 86 | 35 | 82 | 36 | 93 | 43 | 101 | 49 | 109 | 61 | 109 | 65 | 108 | 65 | 106 | 57 | 94 | 45 | 85 | 35 | 80 | 31
1983 | 77 | 33 | 81 | 36 | 85 | 43 | 91 | 37 | 109 | 49 | 107 | 59 | 116 | 71 | 105 | 64 | 107 | 61 | 87 | 55 | 82 | 33 | 79 | 33
1984 | 77 | 31 | 77 | 34 | 87 | 39 | 96 | 39 | 108 | 49 | 105 | 62 | 107 | 65 | 107 | 63 | 103 | 61 | 89 | 47 | 89 | 30 | 73 | 31
1985 | 71 | 29 | 81 | 23 | 81 | 33 | 94 | 45 | 99 | 50 | 112 | 54 | 109 | 66 | 108 | 66 | 99 | 54 | 96 | 47 | 87 | 32 | 77 | 28
1986 | 83 | 39 | 87 | 29 | 89 | 37 | 93 | 41 | 103 | 47 | 107 | 64 | 109 | 64 | 105 | 65 | 102 | 50 | 90 | 46 | 80 | 40 | 78 | 33
1987 | 83 | 22 | 81 | 31 | 83 | 35 | 96 | 41 | 96 | 49 | 109 | 63 | 109 | 67 | 104 | 63 | 101 | 60 | 101 | 56 | 81 | 34 | 81 | 24

**BEST COPY AVAILABLE**
DESCRIPTION: STUDENTS WILL USE THEIR KNOWLEDGE OF CULTURAL NEEDS AND CLIMATE RESTRICTIONS TO PLACE A FICTIONAL O'ODHAM VILLAGE ALONG THE PREHISTORIC SANTA CRUZ RIVER. THEY WILL DESCRIBE THE ADVANTAGES OF THEIR CHOSEN SITE, AND DRAW A SKETCH OF THE VILLAGE.

CREATE AN O'ODHAM VILLAGE

BACKGROUND INFORMATION:

Just as we do today, the O'odham settled where they could “make a living.” For the O'odham, it meant living near sources of water, food, and the materials and resources they needed in their daily lives.

Farming

The O'odham grew many types of corn, beans, gourds, and squash. They grew cotton for making clothing. They also grew desert plants in their gardens, including devil's claw, which was used in making baskets. Even weeds in gardens were gathered for food, especially their nutritious leaves and seeds.

Desert farmers planted gardens where they could get water. They planted in floodplains, channeled storm runoff, terraced hillsides to collect rainfall and possibly built irrigation canals.

Gathering and Hunting

The O'odham also gathered many wild plant foods. Some, like mesquite beans, were staples; they were gathered in large quantities and stored for use throughout the year. Other plants, like careless-weed, were eaten in large quantities when in season. A few of the wild foods which were gathered include: mesquite, grass seeds, prickly pear pads, cholla buds, yucca, agave, careless-weed, purslane, lambs-quarter, cattail, and the fruits of wolfberry, gray-thorn, desert hackberry, and cacti.
In late spring the desert harvest began with the emergence of leafy greens, buds and flowers, and succulent stems. But wild foods are most abundant in the summer when many desert plants fruit and set seed. Cactus fruit and nutritious seeds from grasses, trees and shrubs can be collected in large amounts. The O'odham stored much of their food for use in lean times, like winter. Many foods were dried for storage. Fruits were often made into jam or syrup.

Before the arrival of the Spanish, there were no domestic animals. Meat came from hunting indigenous animals such as javelina, mule deer, jackrabbit and cottontail, and from fishing.

Other materials...

There are many other needs that your students may want to consider in choosing a site for their village. Baskets were made using beargrass, willow, cottonwood, yucca, and agave. Clay was dug from floodplains to make pottery. Wood was needed in building ramadas and "ki" shelters, as well as for fires for cooking and heating. Water was needed for drinking, as well as for farming.
ACTIVITY

- Discuss and review with your students what life was like along the prehistoric Santa Cruz. Why did the O'odham people live where they did? What problems did they face? Where did they get food and supplies? What was life like in the villages? What kind of crops did they have? What kind of crafts did they do? What other activities were essential to O'odham village life?

- Utilizing the map of the Prehistoric Santa Cruz (Master Page I - 22), have students, in groups, select an appropriate area to found their own O'odham village. They should answer the following questions:
  
  - Why is this a good site for a village?
  - How will the villagers get enough food and water?
  - What problems might they have?

- Ask students to draw either a diagram or a sketch of their village, including at least three of the following aspects of O'odham village life: farming, hunting, games, weaving, pottery making, tattooing, food preparation, housing, and water use.

RESOURCES AND REFERENCES

Plants and People of the Sonoran Desert Trail, Desert Botanical Garden trailguide; "Shelter in the Pimeria Alta," 1993
Pimeria Alta Historical Society Calendar;

Enhancements

- Work with the whole class to create a model of an O'odham village. This could be lifesized with a “ki” (shelter) and / or a ramada, or to scale, made out of clay.
Unit II
The Missionary

**Life as a Missionary.** ............... page II - 1
OVERVIEW: Through role-playing different aspects of the life of a missionary, students will gain understanding of the beliefs and lifestyle of the early Jesuit missionaries.

**The Missionaries' Gift.** .............. page II - 9
OVERVIEW: The encounter between native people and Jesuit missionaries brought profound changes that altered history. Through a reading and a matching activity, students will learn about the gifts brought by the early missionaries and how they both helped and hurt the Indians.

**A Day in the Life of a Missionary.** ... page II -12
OVERVIEW: Role-playing a missionary, students will write a diary of a typical day, including daily tasks and a physical description of the area along the Santa Cruz River.

LIFE AS A MISSIONARY

BACKGROUND INFORMATION

In 1492 Christopher Columbus discovered the new world and claimed it for the glory of the Spanish Crown. Within fifty years Spain's domain had spread to include South America, Central America, present day Mexico and into North America. A wave of conquistadors overpowered the native peoples and their lands. As the conquest spread, however, the Spanish Crown realized that they would not have the citizenry to settle the new colonies. A new goal developed. Now the aim was to make converts and tax paying citizens of the indigenous peoples they conquered.

The Spanish mission system arose in part from the need to control the colonies. Realizing that the colonies would require a literate population base that the mother country could not supply, they initiated a system of missions with the goal of converting the indigenous people to Christianity. Jesuit priests were sent into the expanding empire. They devoted years of their lives in exchange for a meager subsistence lifestyle. Their jobs might have included being responsible for up to two hundred families scattered in three or four widely separated villages, while acting as master builder, site manager, agronomist, doctor, economist and social worker. The priests' priority, however, was to convert souls to Christianity. But how was this accomplished? Were they evangelical, telling natives that they would not be allowed into heaven if they did not accept Christianity? Or did they teach more by example, devoting their lives to helping others, with love and kindness their primary goal?
The earliest Jesuit missionaries came to the New World with determination and faith eighty-eight years after its discovery. They came in black robes with a zeal that earned them the title “Soldiers of God,” devoting their lives to bringing the “good” news of Christianity to native populations throughout the world. Ignatius Loyola founded the Society of Jesus, or Jesuit order, in 1540 to bring stability to the church during the Reformation. A group of highly educated intellectuals, the order at first concentrated on missionary activity to the Holy Land. Within two decades the Society began to spread, including education as part of its mission. Father Kino, for example, had the equivalent of fifteen years of university level studies. Today there are more than twenty-eight Jesuit universities and forty high schools in the U.S.A.

A guiding belief for the missionaries and their contemporaries during the seventeenth and eighteenth centuries was that discipline (often as corporal punishment) was essential to maintaining order and community cooperation. A discussion about the U.S. Marine Corps might provide a sound illustration of these beliefs. In the marines, discipline is essential. If someone commits an infraction, he or she might be required to do pushups, run laps or do a variety of other physical activities that may be thought of as punishments. For the most part, the officers do not issue the discipline out of cruelty but from the belief that it is for the good of all. The early missionaries and settlers practiced this same belief. Soldier, parent, citizen and priest practiced a strict code of discipline.

What really happened? Stories abound regarding the mistreatment of Indians, forced labor and cruel priests. However, while such things may have occurred, this was normally not true. It is important, therefore, to discuss the question of whether or not the missionaries were really cruel, or just strict. The Jesuit priests issued criminal sentences based on written laws and guidelines, but an appointed military or civilian official performed corporal punishment, not the Fathers. The missionaries' role was to be more of a protector or redeemer. They were usually there to help at the end of a punishment, and had the power to stop the discipline if they felt it went too far. It is important to emphasize that the historical perspective of the times defined discipline. Three-hundred years ago a lashing or severe punishment was a common occurrence in home and community life!

The missionaries' lifestyle was one of strict devotion to their religion. Observation of daily devotions and special events were important, and included celebration and music whenever appropriate. Days of hard work and frustration were offset with the joy of prayer, meditation, song and celebrations. Claims that the missionaries carried out forced labor are inaccurate. Spain had abolished slavery in 1532 before the Jesuit order was founded. There was a policy, however, whereby twenty-seven percent of the mission Indians (tapizques) could be "borrowed" for up to two months each to work in the mines. The Jesuits kept the mine owners in line and as a result, were often accused of being Indian lovers.

Being highly-educated men with strong opinions and loyalties, the Jesuits
sometimes found themselves in conflict with politicians and military and church authorities. They became a favorite political target, becoming ever more unpopular with the aristocracy, the wealthy and the military throughout Europe and the New World. In the end, the Jesuits were expelled from Europe, the Americas and Asia in 1767. Only about fifty percent of the Jesuits working in the Pimeria Alta survived the forced marches and hardships of expulsion. The survivors then spent six to ten years under house arrest in Spain. Five years later, the Pope suppressed the Jesuit order, at which time they took refuge in Russia under the rule of Catherine the Great. The Jesuit order remained suppressed for sixty years.

The mission era is a period of history that is often questioned and controversial. It seems that the Spanish are blamed for their wrong doings but rarely get credit for their accomplishments. Were you taught that the Pilgrims were the founders of this country? If you were to ask your students, would they reply differently? The Spanish were in present day America a hundred years before the Pilgrims arrived. The truth is that our first European settlers and Spanish missionaries laid the foundation for the present nation of Mexico and our rich, present day Southwest culture. Take some time to study the Spanish mission history. It is an essential part of our heritage that we should not ignore.

**ACTIVITY**

- Review the story of Columbus with your class. Where did he come from? Why did he come to America? How long did it take? What problems did he and his men encounter? How did they travel once they arrived in the new world? Whom did they meet? What do you think life was like for Columbus and his crew? Was life hard or easy?

- Using the story of Columbus as a transition, briefly introduce the missionaries. Who were they? (*The first Jesuit missionaries in Arizona were from Italy, Austria, Germany, Spain and other parts of Europe*). Why did they come? What were their goals? (*The missionary's main motivation was to convert the Indians to Christianity while helping the poor. However, the Spanish Crown financed them, hoping to eventually change the Indians into tax paying Spanish citizens. The priests were zealous in their desire to create what they thought would be a better world for the Indians*). Do you think life for the missionaries was similar to that of Columbus and his men? How?

- Present each of the four following mini-activities to the class, spending approximately fifteen minutes on each.

**Mini - Activity: Music**

Music was an integral part in the life of a missionary. A common song might
have been the Gregorian chant (see Master Page II - 7 and its associated tape located in the Encounters Box). The chant transports singers back in time while teaching breath control and singing techniques.  □2

1) Start by having the students listen to the tape with eyes closed and try to imagine what a church service might have been like.

2) Pass out copies of the chant music and practice it with students. Use the old type of notation shown, called "nuemes," to teach it.

The chant or "nueme" notation evolved around 200 A.D. when chant notes were written on a blank piece of paper as a memory aid. Sometime around 1050 A.D. lines were added based on the solfège (do re mi fa so la ti do) scale. The rhythm is "freestyle," with each note having equal value. The square versus diamond-shaped notes are merely the result of the shapes produced as notes were written by a rapidly moving square quill pen. There are no chords. Notes connected by a line or written above or below each other are sung in order, individually.

3) Show the students a picture of Tumacacori or one of the other missions. (See Unit III, Master Pages III - 10 through III - 21, or use a photograph.) Talk about what it might have been like to attend a service in the 18th and 19th centuries.

The service was all sung in Latin, lasted an hour or longer, and there were no seats. By today's standard, standing and kneeling for long are considered harsh but for the O'odham people at that time it may not have been bad; they were used to all night vigils and rituals. Although many may have attended church daily, they were only obliged to attend once a week and on feast days.

4) Have students practice the chant. (Consider having them kneel on the floor.)

Mini - Activity: Clothing
In this activity students will directly experience the effects the missionaries' choice of clothing had on their comfort and how this compared with the O'odhams' choice of clothing; how they adapted, (or failed to adapt), to the desert environment.

1) Bring in, or ask students to bring, at least two long sleeve shirts; one white or light colored cotton and the other a black or dark colored wool.

2) Before class, make two small lean-tos or shade structures; one with the wool and another with the cotton. Make sure that the material is at least six inches above a dirt or grass surface and leave it up for at least ten minutes to adjust to the outside temperature.

3) Discuss with the students how one's choice of clothing might affect their comfort level in different environments. What do they wear when it's hot? When it's cold? Do colors, types or thicknesses of materials have an effect?
4) Tell them that they will conduct an experiment. Explain the experiment (step 5) and ask them to hypothesize the outcome.

5) Place a thermometer underneath each lean-to and leave it for at least ten minutes. Record measurements simultaneously. Discuss results.

Discuss the traditional dress of both the missionaries and the O'odham people. Why did each group dress the way they did?

*The O'odham wore cotton shirts, pants or dresses, and, on occasion, used breechclouts. The missionary's traditional clothing was a heavy, black wool cassock. However, they most likely wore pants and shirts when traveling.*

Ask for volunteers and have students wear either the wool or cotton shirt and stand in the sun for at least 5 to 10 minutes. If possible, allow each student to experience this throughout the day.

**Mini - Activity: Discipline**

The missionaries and their contemporaries during the seventeenth and eighteenth centuries believed that discipline (often as corporal punishment) was essential to maintaining order and community cooperation. This activity addresses the question of whether the missionaries were really cruel, or just strict.

1) Hold a discussion about current discipline as practiced in the schools. What is your schools policy? Do the students believe its fair?

2) Describe school and parental discipline practices from past generations. Were they fair? Would the students like to have that kind of discipline today?

3) Introduce the idea of discipline in the missions.

4) Create a mini-experience that will give students a feel for what discipline was like in the missions. (Note: these activities are mild, brief samples!) Have students hold a book in each hand with arms fully extended for one or more minutes, stand on one foot for three minutes or longer, maintain absolute silence for a specified period of time, or create your own.

5) Re-discuss the idea of discipline and the lifestyle of the early missionaries and settlers.

**Mini - Activity: Penmanship**
The early Jesuit missionaries were well-educated men. For example, Father Kino had the equivalent of degrees in math, cartography and astronomy, in addition to thirteen years of religious training. Many Jesuits were our first historians and scientists. They were also versed in writing. One Spanish tradition is to make a rubric, an elaborate signature and associated design that is still practiced in many parts of the Hispanic world.

1) Ask students to write their signatures as neatly as possible. Discuss how a signature might tell a story about a person. (Signatures are used as a way to detect criminals, etc.)

2) Explain that the missionaries and educated citizenry in the 18th century took pride in developing their signatures. It was a mark of dignity, status and intelligence. (In many parts of Latin America much emphasis is given to unique, neatly written and sometimes elaborate signatures.)

3) Show examples of rubrics on Master Page II - 8.

4) Using cactus thorns, feathers or a quill pen, have each student create their own elaborate signature or rubric.
**Enhancements**

- Use old documents from *A Kino Keepsake* to further discuss the day in the life of a missionary.
- Have each student bring a long sleeve shirt to personally test what it is like wearing both cotton and wool.
- Have each student take on the identity of an actual missionary as they write both their signatures and daily diaries (see Unit II activity, “A Day in the Life of a Missionary,” page II - 12).
THE SPANISH RUBRIC

The early Jesuit missionaries were extremely well-educated. Many were our first historians and scientists. Father Kino had equivalent to a degree in cartography and astronomy in addition to thirteen years of seminary. The Padres were also versed in writing. It was a Spanish tradition to make a rubric, or elaborate design, following a person's signature - a tradition that is still practiced in many parts of the Hispanic world. Many of the Jesuit priests signed with a rubric as evidenced by these early signatures from the Pimería Alta.

Juan de San Martín
Next to serve at Guevavi following Father Kino

Joseph Agustín de Campos
Served at Guevavi after Father San Martin

Juan de Echagúen
Served at Baviácora

Joseph de Loayza
Served at Opodepe

Can you make your own rubric?

Carlos de Roxas
Served at Arizpe

Joseph de Torres Perea
Served at Guevavi

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**THE MISSIONARIES' GIFT**

**ACTIVITY**

- Divide students into teams and give each team a copy of the story *The Missionaries' Gift* (Master Page II - 10). Read and discuss it either in groups or with the entire class.
- Hand out a copy of Master Page II - 11, *Who Brought What?* Ask each group and / or student to complete the tasks according to the instructions, utilizing the reading as a reference.
- Review and discuss the handouts. Which gifts were beneficial? Which were harmful? Do you think the missionaries meant to cause the Indians pain or suffering? Which modern products do you think will benefit future generations? Are there any which might harm them?

**Enhancements**

- Utilize the following scenario in order to stimulate discussions and /or a writing assignment: “If you were to travel to another country, what gifts would you take, and why?”
- Activities: “Witch Doctor” and “Nature’s Medicine Cabinet”

**RESOURCES AND REFERENCES**


**Subjects:**
Reading, Social Studies, Language Arts.

**Materials:**
Copies of Master Pages II - 10 and II - 11.

**Preparation:**
Review “Simple Gifts” (Master Page II - 10) as background information; make copies of Master Pages II - 10 and II - 11.

**Time:**
One session.

**Vocabulary:**
O’odham, irrigate, crops, drought, frosts, ramada, imported, European, immunity.

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1. Witch Doctor (Black)
   Natures's Medicine Cabinet (Black)
2. Tumacacori Patio Garden Guide (Blue)
THE MISSIONARIES' GIFT

The Sobaipuri, a branch of the Akimel O'odham (Pima or River People) lived along the Santa Cruz River. They were farmers who used water from the river to irrigate summer crops of corn, squash, beans and cotton. They harvested local plants such as mesquite, devil’s claw, and cactus. They also hunted rodents, birds, deer, pronghorn and mountain sheep.

Their lives were dependent on the river. A bad year might bring flooding which destroyed crops and in a dry or drought year the crops died from lack of water. Although the climate was usually mild, it got cold enough for frosts and the plants froze. The cold weather prevented year round planting of warm-weather crops. They had no winter crop, so they were forced to travel to other areas in winter to hunt and supply their diet.

The Sobaipuri heard about Father Kino. Neighbors told them that he was kind, generous and very smart. He spoke about a new God that he wanted to introduce them to. He gave them gifts such as colorful beads, horses, cattle and a plant called “wheat” that grew in the winter. He also brought lots of other good things to eat. These foods may have included sugar, sheep, oats, olives, grapes, pork, cabbage, barley, and beets. Maybe these are the reasons that the O’odham invited and accepted Father Kino into their lives. In 1691 he established the first mission in present-day Arizona at the Sobaipuri village of Tumacacori. The first Mass was sung under a ramada on the east side of the river. Father Kino returned to his church at Dolores but visited Tumacacori about two or three times a year. Each time he came with new gifts and ideas.

Goods brought by Father Kino, other priests, and the early settlers changed the way the O’odham lived. The introduction of wheat and cattle meant that the people no longer needed to move around as much in search of wild foods or go on long hunts since these new crops and animals provided reliable food. Their diet and lives became better because of the new exotic foods such as beets, grapes, and sugar. The cattle, sheep and pigs gave them lots of meat. European inventions such as metal knives and digging tools made their work easier.

Even though many of the changes were good, over time other things imported by the Europeans either hurt the people or their environment. The people settled in larger villages around and near the missions. More people needed to be fed. Instead of hunting during the winter they planted crops all year. This was fine if the weather was good, but sometimes it rained so hard that the river flooded and ruined their crops. Other years, there wasn’t enough water and the plants died. Some plants, like cotton, stripped the soil of nutrients. After a while, the soil couldn’t be used to grow anything. The cows ate certain kinds of grass and left others. Eventually the best grassland was gone, replaced by grasses that even the cows wouldn’t eat.

The worst change came from disease. Without knowing it, the Europeans brought sickness and diseases to the Indians. Smallpox, measles, influenza, malaria and many more diseases had already spread through Europe, sometimes killing whole villages of people. By the time the missionaries came, they had resistance, or immunity, to the diseases, as we do. When we get the flu or the measles, we get sick and then we have medicine to help us get better. But when the Indians got sick, they often died. They had no resistance, and it was common for whole villages to be destroyed by sickness. Sometimes two Indians a day died because of a sickness brought by the missionaries. Can you imagine how they felt? Try to picture yourself as an O’odham Indian. What were the good and bad parts of the changes? What do you think the missionaries thought when the Indians they had come to help started dying at a rate of two per day? ☐️
WHO BROUGHT WHAT?

Below are lots of goods that were exchanged between the Indians and the missionaries. Can you decide who brought what? Circle all of the things which came from the missionaries. Underline those that were used by the Indians throughout the Americas before the Europeans came.

Example:  **Rice** = Spanish    **Avocado** = Indian

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<tr>
<td>Agave</td>
<td>Cocoa</td>
<td>Onions</td>
<td>Squash</td>
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<td>Avocados</td>
<td>Corn</td>
<td>Peanuts</td>
<td>Sheep</td>
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<tr>
<td>Bananas</td>
<td>Devil’s Claw</td>
<td>Pigs</td>
<td>Sweet Potatoes</td>
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<td>Barley</td>
<td>Grapes</td>
<td>Pineapple</td>
<td>Sugar</td>
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<td>Beans</td>
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<td>Beets</td>
<td>Mesquite</td>
<td>Prickly Pear</td>
<td>Turkey</td>
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<td>Cabbage</td>
<td>Oats</td>
<td>Pumpkins</td>
<td>Vanilla</td>
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<tr>
<td>Cattle</td>
<td>Olives</td>
<td>Rice</td>
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GOOD OR BAD?

The European settlers introduced the Indians to many new ideas and innovations, some good and some not so good. Can you tell which ones were helpful and others that were harmful? Draw a line between each thing they brought and the descriptions of how they helped or hurt. *(Hint: there may be more than one answer.)*

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<table>
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<tbody>
<tr>
<td>Disease</td>
<td>Makes good wine.</td>
</tr>
<tr>
<td>Vegetables</td>
<td>Tastes great but not too good for you.</td>
</tr>
<tr>
<td>Cattle</td>
<td>A permanent source of food.</td>
</tr>
<tr>
<td>Grapes</td>
<td>Lots of people died from this.</td>
</tr>
<tr>
<td>Sugar</td>
<td>Beets walking!</td>
</tr>
<tr>
<td>Horses</td>
<td>Ate too much grass</td>
</tr>
<tr>
<td>Wheat</td>
<td>Provided variety to their diet.</td>
</tr>
</tbody>
</table>

MAKE A MEAL!

Many of the things we eat today are combinations of foods the Indians had and ones the Europeans brought. Create a menu with at least three dishes, each using one or more ingredients from the above lists. *(Use the back of this paper.)*

Example: Wheat (Introduced) + Cocoa (Native) = Chocolate Cake
DESCRIPTION: ROLE-PLAYING A MISSIONARY, STUDENTS WILL WRITE A DIARY OF A TYPICAL DAY INCLUDING DAILY TASKS AND A PHYSICAL DESCRIPTION OF THE AREA ALONG THE SANTA CRUZ RIVER.

A DAY IN THE LIFE OF A MISSIONARY

ACTIVITY

- Using the experience and knowledge gained from participating in the activities outlined in "Life as a Missionary" and "The Missionaries' Gift," hold a discussion about life around the missions. Would the students liked to have been a missionary then? Why or why not? Was life easy or not? What was the relationship between the missionaries and the Indians? What gifts did the missionaries bring? What did the Indians give to the missionaries? Contrast the good and the bad events that shaped our history. Lead the discussion to address "a day in the life of a missionary." What do the students think it would have been like?

- Read and review the old document translation on page II - 13 to further discuss "a day in the life of a missionary."

- Assign students the task of writing a journal with the theme of "a day in the life of a missionary." Have students pretend they are missionaries for at least one day and record the activities they believe the missionaries might have done. Encourage them to use flowery language such as Kino or his contemporaries used.
"Our intention was to leave Tucubavia for Cocospera but we encountered, coming from the north, messengers, or runners of the Sobaipurs of San Xavier of Bac, forty leagues distant, and from San Cayetano of the Tumacacori. With some crosses they gave us, they knelt with great veneration and asked on behalf of all their people that we come to their villages also. The father visitor told me that those crosses represented grand tongues which spoke much and that we could not fail to go where they called us. Whereupon we ascended to the valley of Guevavi, a distance of about fifteen leagues and arrived at the village of San Cayetano of Tumacacori where some of the Sobaipuri chieftains were, having come twenty and twenty-five leagues from the north. At San Cayetano they had prepared three arbors for us; one in which to say the Mass, another for sleeping, and the third for a kitchen. There were more than forty houses together here. We baptized some children and the father visitor gave good hopes to everyone that they would receive the fathers and the holy baptism and the remedy for their eternal salvation for which they were asking. And, having seen so many worthy people, so docile and so affable, and with such pleasant valleys, so lovely and fertile, filled with industrious Indians, he spoke these words to me, "My Father Rector, not only will none of the four fathers assigned to this Pimeria be removed, but four more others will come, and with divine grace, I will try to be one of them." We then went on to the village of Guevavi and to the valley and settlement of Santa Maria, some fifteen leagues away."

Enhancements

- Instead of writing about activities they believed the missionaries did, ask students to document their own personal diary, but in the style of the friars.
- Extend the journaling exercise throughout the week.
- Consider viewing the film "The Mission" with Charleton Heston. (This is an older, classic film but has some violence. Please review it carefully.)

RESOURCES AND REFERENCES

Seeds of Change: The Story of Cultural Exchange after 1492, Sharryl Davis Hawke and James E. Davis, Addison-Wesley Publ., 1992;
Unit III
Padre Kino

The Kino Story

OVERVIEW: This activity consists of an eighteen-minute long video, “The Kino Story,” directed by Dr. Charles Polzer and narrated by Tucson students, with accompanying discussion questions.

Kino’s World

OVERVIEW: In this geography lesson, students trace Father Kino’s work and missions, while making simple math computations to determine time and distance.

The People - Nature Network

OVERVIEW: Through playing the Web of Life game, students will learn about the components and complexities of a 17th century Pimeria Alta ecosystem, including the effect that people (the O’odham, and Jesuit missionaries) might have had on the ecosystem.
The video gives a basic, easily understood account of Father Kino and his impact on the people and the environment of the Pimeria Alta. It relates to the area’s inhabitants, the arrival of Father Kino, the mission system he established and his explorations. It is an excellent introduction to Father Kino and the history of the Pimeria Alta.

**BACKGROUND INFORMATION**

(Note: Answers to discussion questions are italicized and numbered.)

Eusebio Francisco Kino was born on August 10, 1645 in Segno, Italy (1), a small village. He grew up in an affluent family. His parents, recognizing his abilities, sent him to the Jesuit college in nearby Trent. He continued his studies at Hall near Innsbruck, Austria. During his studies, he fell seriously ill and vowed that if his patron, Saint Frances Xavier, would intercede, he would devote his life to the church (2). He regained his health and joined the Society of Jesus, or the Jesuits.

Father Kino completed his education in mathematics, with an interest in astronomy and cartography. In addition, he spent thirteen years pursuing religious studies with the Society. Upon completion, Father Kino looked forward to serving as a missionary in China (3). But fate did not fulfill his dream. Upon drawing lots, Father Kino was destined for Mexico (3).

As a missionary, Father Kino’s main work was to convert the Indians to Christianity (4). The way in which he and his Jesuit contemporaries did this was by education. For the most part, the Jesuits befriended the Indians and took time to learn their
language and their culture. It was primarily through this interpersonal connection that Father Kino made his converts. Although pledged to the Pope and the church, the Jesuits were also loyal vassals of the King and the Spanish government who had their own goal of converting the Indians into acculturated Spanish citizens. Often, however, it did not work that way. (4). The idea was that the Crown would finance the missionaries for up to 10 years, at which time their church community would be self-sufficient and tax paying. Of course, it never worked that way!

Traveling in the seventeenth century was no easy task. Father Kino set out in 1678 to Cadiz, Spain, with hopes of catching a “flota” for the new world. Unfortunately, bad navigation caused a delay, forcing Father Kino and his companions to miss the fleet. He waited two years before he was able to book another passage. He used his time wisely though, brushing up on Spanish. The day finally came when Father Kino and his Jesuit brethren went to sail on the ship “Nazareno,” only to become grounded and battered on a sandbar just outside of the Bay of Cadiz. He waited another six months before he finally got his passage.

Upon arrival in New Spain, Father Kino went to Mexico City to await instruction. Two years later he got his first assignment, working in La Paz, Baja California. Unlike any of his predecessors, Father Kino was successful there in his work with the Guaicuro Indians. This was short lived, however. A group of soldiers invited a group of Indians suspected of stealing to a meal of peace. The soldiers fired on the Indians. Colonists, military personnel and missionaries had to flee for their lives. With their backs to the sea, they barely escaped when a relief ship arrived just in time.

Regrouping on the mainland, Father Kino and the expedition landed to the north at San Bruno, where he spent the next year administering to the physical and spiritual needs of the Indians. But as the sprouting community was finally becoming established, the harsh environment took its toll. Plagued by drought, crop failure and widespread disease, the powers-that-be decided that the project should be abandoned. Father Kino returned to Mexico City to plead for the Crown’s support in returning to Baja but to no avail. The Spanish colonization of Baja was over, at least for the present, but Father Kino was steadfast in his goal to get back there. He finally got permission to work close to Baja California among Seris and Guaymas Indians. But fate took another turn when Father Kino’s superiors decided to send him north, to the area known as the Pimeria Alta, or the upper (more northern) lands of the Piman Indians (5).

On March 13, 1687, Father Kino rode into Cucurpe, Sonora (“Place where the dove sings”). On that very day he founded his first mission, Nuestra Senora de los Dolores (6) at Cosari, not far from Cucurpe. Thus, his Lady of Sorrows Mission became Father Kino’s home and base camp for the remainder of his life.
Father Kino's work was plagued by envious priests, hostile mine owners and incompetent military officials. A few other missionaries, jealous of Father Kino's success, spread rumors and criticized his credibility, finally forcing his superiors to investigate the allegations. Father Salvatierra was sent, only to return with glowing reports of Father Kind and his work. The mine owners, however, continued to be hostile to Father Kino, as they were to most Jesuits. They had once been able to exploit the Indians to work in the mines. Now the mine owners were restricted in their practice of forced labor by the justice seeking Jesuits who were often referred to as "Indian lovers." It was the military, however, that seemed to have done the most damage to the Indian and Spanish relationship. In 1695 a small rebellion broke out at Tubutama caused by superstitious misinterpretations of mission policy. It resulted in discontented Indians burning and ravaging fields and pueblos all along the Altar River. The uprising quickly spread downstream to Caborca, where the locally beloved Father Saeta was murdered, making him the first martyr in the Pimeria Alta. In an attempt to rectify the tense situation, Father Kino requested that O'odham chiefs meet with military personnel. This resulted in the chiefs turning over the guilty, who were judged and beheaded on site by an over zealous lieutenant. The fighting continued, and although short-lived, it destroyed much of the work and trust Father Kino and his contemporaries had labored so hard to develop.

Three months after the 1695 revolt subsided, Father Kino rode to Mexico City to once again make his plea to expand his work to Baja California. His arguments were heard and finally approved. He returned with a small crew to assist with the colonization of Baja California. But Father Kino's return and his new ideas met with resistance. Although some of his contemporaries continued to challenge him and were happy to hear that he was leaving, the majority, including his superiors, realized that Father Kino was an essential person in the Pimeria Alta. Frantic letters poured into Mexico City in protest of Father Kino's new Baja California assignment. He was needed to rebuild the Pimeria Alta. So it was that enroute to his new commission, he was met by a courier with orders from the Viceroy to return to the Pimeria. The people needed him, and the Crown agreed to support him with promises of supplies and military escorts.

Father Kino continued to work in and expand the area of the Pimeria Alta, working with various tribes including the Akimel O'odham (Pima or River People), Tohono O'odham (Papago or Desert People), Sobas, Cocomaricopas, Opas and Yumas. With each of these peoples Father Kino earned a reputation of respect and reverence. He was known to be kind, generous, intelligent and hard working. His horsemanship was also noteworthy. Bolton also mentions a story about how the "Padre on Horseback" could ride 50 to 75 miles a day (7)(8).

Father Kino's travels took him north to the Gila River (just south of present-day Phoenix), east to the San Pedro River Valley and the border of Apache lands, and
west to the Colorado river. During one of his ventures he was given a gift of blue abalone shells which he recalled seeing in Baja California. Father Kino began tracing the origins of the shells. Finally convinced that the blue shells were directly traded with the desert Indians, he made a series of expeditions to prove that Baja was not an island as it was believed to be, but a peninsula (9); a discovery that became a landmark in the colonization of California.

Father Kino continued his work until 1711 when, at 66 years of age he went to Magdalena to dedicate a new chapel. After the Mass of dedication he fell fatally ill. At midnight on March 15, 1711, he passed away. Father Kino was buried in a chapel near the church at Magdelena (10), his gravesite eventually lost in the tumultuous history of Mexico. In 1966, excavations were conducted at Magdelena to find Father Kino's grave. The site now stands as a monument to the Father of the Pimeria Alta.

Father Kino left a rich legacy behind him. He was the first to explore and map the Pimeria Alta while establishing over twenty missions including Caborca, Cocospera, Guevavi, Magdelena, San Ignacio, San Xavier, Tubutama, and Tumacacori (6). He was known to be compassionate, understanding, a scholar, a great horseman, and knowledgeable about agriculture and other practical subjects. He earned the respect of the native people, his colleagues, and his superiors. He is still well known today, his accomplishments recognized by many.
ACTIVITY

- Hand-out the "Kino Story - Discussion Questions" (Master Page III - 6) to your students and briefly read over them. Encourage the students to try to remember the answers during the film.

- Show the video to your students. Review each of the discussion questions with students. Allow them to individually answer the questions.

- Collect and utilize the discussion questions as an "open test," evaluating the students on overall comprehension, writing skills, and if appropriate, neatness.

RESOURCES AND REFERENCES


Enhancements

- View the Tumacacori Story video in the Encounters Box (blue section).
- See how many streets, businesses, monuments, etc. you can find that are named for Father Kino, using phone directories, street directories and other resources.
- Visit and study Tumacacori, San Xavier, or other Kino missions located in Mexico.
KINO STORY - DISCUSSION QUESTIONS

1. Where was Father Kino born? What was his full name?

2. Why did Father Kino decide to become a missionary?

3. Where did Father Kino dream about going as a missionary? Where was he actually sent?

4. What were the two jobs that Father Kino was given to do as a missionary?

5. What does “Pimeria Alta” mean?

6. What was the name of Father Kino's first mission? Name at least three other of Father Kino's missions.

7. What did the Indians think about Father Kino?

8. Name at least three native peoples that lived in the Pimeria Alta during Father Kino's life.

9. What major discovery did Father Kino make concerning California?

10. How old was Father Kino when he died? Where did he die? Where is his grave?
OVERVIEW: IN THIS GEOGRAPHY LESSON, STUDENTS TRACE FATHER KINO'S WORK AND MISSIONS, WHILE MAKING SIMPLE MATH COMPUTATIONS TO DETERMINE TIME AND DISTANCE.

KINO'S WORLD

ACTIVITY

PART I
- After viewing the video and discussing Father Kino and the missions of the Pimeria Alta, utilize a globe or a world map to locate the answers to the following questions with your students:
  - Where was Father Kino born? (Segno, Italy)
  - Where did Father Kino attend college? (Trent, Austria)
  - To what country did Father Kino wish to go as a missionary? (China)
  - To what country was Father Kino actually sent? (Mexico)
  - Where was Father Kino's first assignment? (Baja, California)
  - Where is the Pimeria Alta? (From Magdelena, Sonora north to the Gila River near Phoenix, west to Yuma County and east to the San Pedro River.)
  - Where did Father Kino die? (Magdalena, Sonora, Mexico)

PART II
- Introduce each of the Father Kino Mission pictures by pointing out where they are located on the enlarged Pimeria Alta map. Display each of the mission pictures (Master Pages III - 10 through III - 21) so the students have access to look at them.
- Assign each student one of the Father Kino Missions. Have them draw the mission and write the mission's complete name. (More than one student may have to share a mission.)

- When the drawings are complete, have each student place and properly locate their mission drawing on the enlarged Pimeria Alta map.

PART III

- Distribute photocopies of the Pimeria Alta Map (Master Page III - 9) to each of your students.

- Demonstrate how to utilize the Scale of Miles on the map.

- Assign one or more of the following mathematical assignments:
What is the approximate distance between Dolores and Magdalena?

What is the distance between Caborca and Dolores?

What is the distance between the mission you drew and Tumacacori?

How many miles would Father Kino need to ride if he started at Dolores and went to Magdalena, on to Cocospera, Tubutama and eventually Caborca? If he returned by the same route, what would be his total mileage?

If Father Kino was able to ride 40 miles a day, how many days would it take him to ride from Cucurpe to San Xavier del Bac?

**Enhancements**

- Make a copy of the map on the back cover of *Kino Guide II* for each student. Identify borders of the Pimeria Alta by coloring surrounding areas. Leave the Pimeria Alta area uncolored so that it stands out.

**RESOURCES AND REFERENCES**

Santiago de Cocospera
ENCOUNTERS, Unit III, Padre Kino
San Ignacio de Caborca

ENCOUNTERS, Unit III, Padre Kino
Subjects:
Science, Social Studies and Language Arts.

Materials:
Species Cards (See Master Page III - 27 and III - 28); ball of yarn, string or rope (a type that does not easily tangle).

Preparation:
Use the information on Master Page III - 27 and III - 28 to make up cards, one for each student, representing natural components of the Pimeria Alta ecosystem. (Cards will be displayed as name tags. Consider using string, tape or safety pins to attach them.)

Time:
One session.

Vocabulary:
bosque, cienega, riparian

1. Wild Resource Match activity (Red)
   Mission Edibles (Red)
   Riparian Area Management (Env)

**DESCRIPTION:** THROUGH PLAYING THE "WEB OF LIFE" GAME, STUDENTS WILL LEARN ABOUT THE COMPONENTS AND COMPLEXITIES OF A 17TH CENTURY PIMERIA ALTA ECOSYSTEM, INCLUDING THE EFFECT THAT PEOPLE (THE O'ODHAM, AND JESUIT MISSIONARIES) MIGHT HAVE HAD ON THE ECOSYSTEM.

**THE PEOPLE - NATURE NETWORK**

**BACKGROUND INFORMATION**

The Pimeria Alta region contains several natural communities. The one in which Father Kino met the O'odham people at Tumacacori was mostly swampy grassland, cut by washes and the waterways of the Santa Cruz River. The environment then, as it is today, was rich and diverse with abundant flora and fauna.

Cottonwoods and willows lined the channel along the riparian-or riverside-zone; as well as walnut, ash, netleaf hackberry, and Mexican elder. Birds like kingfishers, warblers, grey hawks and phoebes; mammals like foxes, javelina, jaguar, and bobcats; frogs, and fish all found homes among this dense riparian forest or in the flowing water. Vast stands of mesquite (much taller and denser than their small relatives we see on the hillsides today, because their roots could reach the shallow groundwater near the river) followed the wide upper terraces along the river's floodplain in thick bosques (woodlands) which also included other trees and shrubs. The bosques sheltered grizzly bear, wild turkeys, rabbits, deer, and other wildlife, and gourd vines, wild honeysuckle and morning-glory, tree-tobacco, and many other plants.

Cienegas, or marshes, sheltered the river's course and provided habitat for great blue herons, ducks, dragonflies, turtles, fish, and possibly beaver. Sacaton grass stood in wide meadows along the river where pronghorn grazed. In contrast, the "uplands" (surrounding higher ground) were mostly covered with bunch grasses, interspersed with prickly-pear and other cactus, ocotillo, yucca, and agave.
The riparian or other stream-side environments (riparian forest, mesquite bosque, or cienega, or all three habitat types combined) might be a good place to start your “web of life,” as more than seventy-five percent of all of Arizona’s wildlife still depend in some way on these systems. The O’odham and later the Jesuits also depended on the river. The availability of reliable surface water was the reason places like Calabasas (now Rio Rico), Tumacacori, Tubac, and San Xavier were settled.

ACTIVITY

- Ask for a volunteer and write his or her name on the blackboard. Next, ask students to identify all of the components needed for this person to live such as a house, food, air, clothes, etc. Explain that all of the components combined create a system very similar to an ecosystem that you would find in nature. Using this example as a transition, further define and discuss the idea of an ecosystem.

Part I - The Nature - Nature Connection

- Pass out the cards (See Master Page III - 27 and III - 28) or have students make their own and have students display them as name tags. Assign one card / component to each student.

- Have all of the students form a circle except those with the following cards: corn, beans, wheat, cattle, O’odham Indian, Spanish missionary. (Students may stand or sit.)

- Starting with the student representing the mesquite tree, ask him or her to identify one other species / student from anywhere in the circle that needs the mesquite to survive, and to explain why. (It may provide, food, shelter, shade, hiding, etc.)

- Give the student with the “mesquite” card the end of the ball of yarn to hold, and stretch it across the circle to the selected species / student. Ask the second student to hold the yarn taut where it connects to him or her. (Example: mesquite ⇒ mesquite beetle)
- Proceed the same way with the second species / student, connecting the yarn to a third student. (Example: Mesquite ⇔ Mesquite Beetle ⇔ Roadrunner)

- Continue to connect each species / student to the other species / students on which they depend.

- Complete the web when the yarn returns to “mesquite.” Explain and discuss the implications and importance of the “web of life” idea.

- Ask the students their opinion about the role of the Indian and the ecosystem in which they lived. Do they think the Indian has helped or hurt the system and why? (More complexity generally makes an ecosystem more stable, and because the O’odham did not overtax any resources, they probably improved the system’s stability or had little impact.)

Part III - The Missionary - Nature Connection

- Introduce into the circle the students representing the Spanish missionary and his or her introduced crops of wheat and cattle.

- Pass the yarn to the missionary and discuss the connection between the species / student and the missionary. Continue making connections while discussing the missionary - species relationship. Did the missionaries’ presence affect the interrelationship between the different species? How? Did the missionaries rely on the different species as the Indians had? Etc.

- Ask the students their opinion about the role of the missionary and the ecosystem in which they lived. Do they think the friars helped or hurt the system and why? (The missionary presence had more of an impact because of the expanded wheat and cattle production. Nevertheless, because the population remained small, there was probably positive or little effect in total).
Part IV - The Importance of the Web

When all of the species / students have been introduced, ask all participants to stand still and keep the web taut.

- Ask one species / student gently to begin tugging until other species / students are feeling it. Explain that the tugging represents pressure on the ecosystem through natural (e.g., drought) or human-made events (e.g., new plant introduction that crowds out natural plants). How does it affect the system?

- Continue this process with introduced components such as corn, beans, wheat or cattle. How might these have affected or damaged the ecosystem? (New single crop fields replaced natural ecosystems, destroying native plants and displacing wildlife.) How about the Spanish or the Indians? (They hunted wild animals. They cleared areas of wild plants for agriculture, buildings and food. They might have competed with animals and plants for water, introduced new plants that took over the habitats of wild plants; etc.)

- To emphasize the importance an individual species has in an ecosystem, ask students to pick a component that does not seem important and have that student drop his or her yarn. This represents the disappearance of some part of the system. How does this affect the rest of the ecosystem? What if people overused a resource, and it was lost? Repeat the process, removing components while explaining the adverse effects it might have on the ecosystem.

Enhancements

- Have students draw a picture of their component on one side of the card and list survival needs and "uses" on the other side.
- The "web of life" activity can be run for several different time periods, following the same procedure previously outlined and asking most of the same questions. Some examples; the coming of the Apaches in the late 1600's or early 1700's; the development of large-scale mining and grazing, mostly by Anglos, in the late 1800's, and resulting land destruction; the expansion of irrigated agriculture from the 1930's through the 1960's and the resulting lowering of water tables and loss of Santa Cruz River surface flow.
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<tr>
<th>COTTONWOOD TREE</th>
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<th>WALNUT TREE</th>
<th>ASH TREE</th>
<th>MESQUITE TREE</th>
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<td>KINGFISHER (BIRD)</td>
<td>WARBLER (BIRD)</td>
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<td>SAYS PHOEBE (BIRD)</td>
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<td>OREGON GRAPE</td>
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<td>ROADRUNNER</td>
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<td>O'ODHAM INDIAN</td>
<td>JESUIT MISSIONARY</td>
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*ENCOUNTERS, Unit III, Padre Kino*
OVERVIEW: These activities will prepare teacher and students for the "Kino Encounter" presentation, while reviewing O'odham and missionary culture and history.

OVERVIEW: The "Kino Encounter" classroom presentation is a dynamic historical reenactment of Father Kino's first encounter with the O'odham from Tumacacori and Bac in 1691. Under the guidance of a park ranger, agency representative or teacher, students will learn about and role-play the event.

OVERVIEW: Through guided visualization, discussion and story writing, students will examine their feelings about encounters between new people and cultures.
DESCRIPTION: THESE ACTIVITIES WILL PREPARE TEACHER AND STUDENTS FOR THE "KINO ENCOUNTER" PRESENTATION, WHILE REVIEWING O'ODHAM AND MISSIONARY CULTURE AND HISTORY.

GETTING READY TO MEET FATHER KINO

BACKGROUND INFORMATION

During the "Kino Encounter" presentation, students will work in various stations representing O'odham and missionary life while reenacting Father Kino's first encounter with the O'odham people from the Tumacacori and Bac in 1691. The more prepared and knowledgeable the students are, the more effective the presentation will be.

Part of the presentation will include the exchanging of gifts. The O'odham offered gifts of crude crosses, arches, jewelry, corn and squash. Father Kino and his group brought gifts such as colorful beads, jewelry, cattle, sheep and wheat. Using the instructions in the "Activity" section below, have students make gifts before the classroom presentation.
ACTIVITY

- Review with the students the lifestyle and activities of the O'odham and the Jesuit missionaries as described in Units I and II.

- Explain that the O'odham heard about Father Kino and wanted to invite him to their village. Brainstorm with your class what kind of things and / or gifts the O'odham people would have liked. What should Father Kino give to the O'odham?

- Make a list of appropriate gifts, keeping as historically accurate as possible.

- Lead students through one or more of the following activities:

1) Take a hike to find sticks or natural items to make crosses for Father Kino. (Use grass, leather, corn husk, tape or string to tie them together.)

2) Use fish line, string, yarn, pasta, beads, colorful paper, etc., to make jewelry.

3) Make stick puppets to represent gifts from Father Kino. (Cattle, sheep, a cart full of wheat.)

4) Draw pictures or stick items of corn, squash, native plants, cotton, etc., to represent O'odham gifts to Father Kino.

Enhancements

- Consider making a small O'odham village outside on the school grounds for the "Kino Encounter" presentation.
- Use other activities from Hokokam Arts and Crafts. (See Resources and References)
DESCRIPTION: THE “KINO ENCOUNTER” CLASSROOM PRESENTATION IS A DYNAMIC HISTORICAL REENACTMENT OF FATHER KINO’S FIRST ENCOUNTER WITH THE O’ODHAM FROM TUMACACORI AND BAC IN 1691. UNDER THE GUIDANCE OF A PARK RANGER OR AGENCY REPRESENTATIVE, STUDENTS WILL LEARN ABOUT AND ROLE-PLAY THE EVENT.

MEET FATHER KINO

BACKGROUND INFORMATION

The Kino-O’odham Encounter (from here on referred to as the Encounter) is a dynamic reenactment of the Encounter between Father Kino and the Sobaipuri (O’odham) people from Tumacacori and Bac that occurred in 1691. The role-play involves all students, and incorporates important concepts, discussions and critical thinking into a fun, exciting activity.

The Encounter was created as a local agency outreach program, to be guided by a ranger, an assistant and the teacher. Local teachers in Santa Cruz County, District 35, and the Green Valley area can request this program free of charge. All required materials will be furnished by agency personnel. However, for schools outside of the service area, or when a ranger is not available, the Encounter may also be conducted by a teacher, without agency personnel and support. The instructions as follows are detailed step-by-step so that either ranger or teacher can direct the activity. Keep in mind that, although bilingual abilities in Spanish and English are ideal, the reenactment can be done in English.
ACTIVITY

PREPARATION:

Read through all instructions and information below.

1) Complete the activities in Unit I, “O’odham Village Life” (pages I - 1 through I - 12), Unit II, “Life as a Missionary” (pages II - 1 through II - 8), and Unit III, “The Kino Story” (pages III - 1 through III - 6). Given the complexity and timing of the activity, the more knowledgeable the students are, the more successful the program will be. We regard the completion of at least those sections of Units I through III, therefore, as essential groundwork. Many of these activities will be reviewed or repeated during the Encounter.

2) Gather materials (normally supplied by the visiting ranger): clay for pots, construction paper or natural materials for mats, corn or other grain and mano and matate (mortar and pestle) for grinding, Pima Stick game (see Unit I, Master Pages I - 8 through I - 12 for craft and game instructions), copies of Chant music (Master Page II - 7), pictures of Kino Missions (Master Pages III - 10 through III - 21), and costumes (see page IV - 6). Your class will provide: pictures or representations of Father Kino Gifts (cattle, horses, tools, wheat) and O’odham Gifts (jewelry, corn, crosses, etc.) made in “Getting Ready to Meet Father Kino” (pages IV - 1 and IV - 2).

3) Select an area for the "Kino-Encounter Classroom Presentation. An outside area like a partially shaded field or a playground is best. However, a classroom and / or covered area will also suffice. You will need one area to set up an O’odham Village (a shady area) and another, more open space where Kino’s Group can spread out (a large field, preferably with shady areas);

4) Divide the class into the three groups described below (page IV - 5). Introduce the students to their roles. (See also Master Pages IV - 12 “The Cast: Kino’s Group,” and IV - 13 “The Cast: O’odham Villagers”)

5) Set up the O’odham village site. Under cover of a tree, ramada or a room, set up the four activity stations close to one another, yet separate: Game Playing, Pot Making, Mat Making and Food Preparing. (Four tarps can be used to designate each station).

6) If using costumes, strategically place costumes around the room to facilitate the students getting dressed. If not using costumes, find a way to distinguish between key players and each group, (For example, O’odham wear beads and Kino’s Group wears hats).
Group 1: KEY ACTORS
(Four students):
The success of the Encounter will depend upon the performance and abilities of the key actors. Take your time to carefully select these four positions based on language, speaking and potential leadership ability. Descriptions of individual roles will be provided later in this unit (see Master Pages).

FATHER KINO
Father Kino will lead his small group to visit missions and eventually found a mission at Tumacacori. He is the primary spokesperson, ideally, fluent in Spanish and ultimately in charge.

FATHER SALVATIERRA
Father Kino and Father Salvatierra are to work together as a team. Historically he was a more powerful voice than Father Kino, however, during this expedition he was Father Kino’s guest. All discussions and decisions should include Father Salvatierra. Ideally, the student should be fluent in Spanish.

VILLAGE CHIEF
The Chief is responsible for the good will of the village. Once the idea of Father Kino’s visit is proposed, the Chief should encourage questions and participation from other villagers. He or she was chosen by the O’odham for the ability to be a conscientious leader, not a dictator. However, the Chief will need to take the role of spokesperson during important events such as the encounter with Father Kino.

EL INTERPRETE (INTERPRETER)
The interpreter was the only person who was fluent in both Spanish and the O’odham (represented by English) languages. All communication between Kino’s Group and the O’odham must go through this person.

Group 2: KINO’S GROUP
(6 to 8 students)
Father Kino, Father Salvatierra, Interpreter and Vaqueros: Father Kino’s work took him to many new areas while still maintaining his missions and visitas. He rarely traveled alone, but rather with a small group. In 1691 when O’odham Tumacacori and Bac met Father Kino, he was traveling with visiting Father Salvatierra, an interpreter, and a small group (2 to 6) of vaqueros (cowboys). Ideally, students in this group should speak Spanish.

Group 3: O’ODHAM VILLAGE INDIANS
(The remainder of students)
Village Chief and Villagers: The majority of students will participate in Tumacacori village life. The ranger will bring props and materials in order to allow students to perform activities as described in Unit I, “O’odham Village Life.” Activities will include Mat Makers, Pot Makers, Game Players, and Food Preparers.
THE ENCOUNTER:

INTRODUCTION

- Discussion: (Led by Director - the ranger, or if unavailable, the teacher.)
  - Who were the first people to live along the Santa Cruz River? (O’odham) How did they live? (They farmed along the Santa Cruz River) What did they eat? (They gathered wild foods and hunted small animals and deer) What kinds of activities did they do in their village? (Basket and pottery making, gambled or played games, prepared food)

- Who was the first European to establish a mission in the area? (Eusebio Francisco Kino) What year did he come? (1691) Where did he come from? (Segno, Italy) Who was he working for? (The Spanish King) What was his job? (To work as a Jesuit missionary and bring Christianity to the native people.)

- Have you ever had an Encounter with a person from another country or culture? What was it like? How did you feel and why?

- Explain that in 1691 the O’odham from Tumacacori and Bac heard about Father Kino and wanted to invite him to their village. But instead of talking about it, the entire class is going to make a play.

COSTUMING

Separate the class into their designated groups and give students their respective costumes. Ask them to get dressed as quickly and efficiently as possible. (National Park Service costumes consist of ponchos and bandannas for O’odham Indians, vests and hats for vaqueros, priest cassocks for Father Kino and Father Salvatierra, and a mixture of items for the Chief and the Interpreter.) Once costumed, have the Village Coordinator (an adult) take the O’odham Villagers to the village, while the Director takes Kino’s Group to a predesignated area.

THE ENCOUNTER BEGINS

Father Kino visits his missions

You are now ready to begin the Encounters reenactment which will require a Director (ranger or teacher) and the assistance of two other adults, the Village Coordinator and the Scout. Instructions for each coordinator and step by step procedures follow: see Master Pages IV - 8 and IV - 9, “Director,” Master Page IV - 10, “Village Coordinator,” and Master Page IV - 11, “The Scout.”

Carry out the instructions on the above listed Master Pages before going on to the Second and Main Encounter.
SECOND AND MAIN ENCOUNTER

Father Kino Arrives at the Village

1) As Father Kino and his group arrive at the village, he should be met by the Chief and invited to come into the village. (At this point all of the kids tend to crowd. Have everyone except Father Kino, Father Salvatierra, the Interpreter and the Chief sit down.)

2) Exchange greeting formalities and proceed with the gift exchange. Using the Interpreter, have representatives from each side present their respective gifts, explaining the gift’s use and importance. Encourage questions whenever possible.

3) Upon completion of the gift exchange, the idea of establishing a mission at Tumacacori is proposed. Allow students, O’odham and Kino’s Group, to ask questions in order to determine whether or not this is a good idea.

4) Once again, split into the two groups, O’odham and Father Kino’s, and have each decide whether or not Father Kino should start a mission at Tumacacori.

THE ENCOUNTER ENDS - Conclusion

Come out of the historic roles and return to the present - day. Hold a discussion, using the following questions as a guide:

- How did Father Kino help the Indians? (He brought new technology and imported foods which, at least initially, made life better for the Indians.)

- How did Father Kino change the Indians? In which ways do you think Father Kino might have affected the Indian culture? (Starting with Father Kino, much of the original Indian culture changed both positively and negatively. Imported foods and technology made life easier and many ways better for the O’odham, but it also changed their culture so that many traditions have been lost.) Did he bring anything with him that hurt the O’odham? (Diseases)

- Would you have done anything differently if you were Father Kino? Would you have liked to have been alive at the time of Father Kino? Why or why not? Looking back over time, do you think that this first Encounter with Father Kino was good? Why or why not?
• What important race was born as a result of Father Kino’s and other such Encounters? *(Mexican)* What is a "Mexican?" *(mestizos - a mix of European and Indian)* Are any of the students Mexican-American?
DIRECTOR

(To be performed by a ranger or teacher)

The Director is a key role. He or she manages the reenactment and all logistics, leads class discussions, and coordinates the Father Kino Spanish-speaking group. The role is usually performed by a Park Ranger or park representative. However, when park staff is not available, the reenactment can be done with the teacher taking this role. (Bilingual abilities in Spanish and English are ideal, but the reenactment can be done in English.)

COORDINATION OF KINO’S GROUP:

The approximate time for this part is 20 minutes, a relatively short period to try to accomplish the following objectives: learn more about Father Kino and his missions, identify and discuss important “imported gifts” brought in by Father Kino, and prepare the group for the future Encounter with the O’odham from Tumacacori and Bac. Try to divide the time up into four stops of about 5 minutes each. Be flexible and willing to consolidate or stretch out the time at each stop as needed.

Stop 1 - At Tubutama, the first mission visita

1) Huddling in a circle, reemphasize that the students are no longer in fourth grade, but are to become Father Kino and his group. If speaking Spanish, no English may be spoken!

2) Remind them of their individual roles: Father Kino is in charge, Father Salvatierra his guest and the rest are there to serve and work for them.

3) Explain that their goal is to visit various missions in the Pimeria Alta. Hand-out a map of the Pimeria Alta, one for every two students (See Master Page III - 9).

4) In the center of the circle, place pictures of each of the following missions: Magdalena, Cocospera, Imuris and Tubutama (see Master Pages III - 10 through III - 21). Using the map, ask them to find each of the missions, and, starting at Tubutama, plan a logical route to visit them all.

5) Once a route has been determined, using the mileage legend with a stick or pencil to measure, help them to compute, in leagues, how far it is from their starting point to their next destination.

6) Pose the following math question: If one pace (a large step of approximately a yard) equals 10 leagues, how many paces must we walk in order to get to the next destination?

7) Picking the approximate direction on the playground, help them pace the number of leagues until Stop 2. As a group, count aloud the paces while walking.

Stop 2 - At the second mission visita

1) Discuss the work of Father Kino. Why was he there? (To convert the Indians to Christianity) What was his job? (Father Kino and other missionaries were paid for by the Spanish crown. Their goal was to educate the Indians about Christianity and the Spanish system. Ideally, they were to accomplish this within 10 years, at which time the missionaries were to be replaced by a parish priest.) If the main goal was to convert the Indians to Christianity, what might they do at this church? (Chant the Kyrie on Master Page II - 7)

2) Repeat steps 5-7 in Stop 1.
Stop 3 - At the third mission visita.

1) Huddling in a circle, lay down the picture of the appropriate church for them to look at.

2) Sing the Kyrie chant on Master Page II - 7.

3) Discussion: In what ways can Father Kino help the people? What kind of supplies should they give to the Indians?

4) Explain that some of the supplies were very important to the Indians. Discuss each of the following gifts and their implications. Use pictures if possible: Wheat - (Because there are winter frosts, the O'odham were unable to grow corn, a summer crop, year-round. A winter crop like wheat meant that they could have a staple crop year-round and did not have to move camp during the winter season.) Horses - (Most likely, the encounter with Father Kino was the first time they saw horses which supplied them with more efficient transportation, etc.) Cattle - (Before Father Kino introduced cattle, the O'odham had to hunt for their food often traveling great distances into Apache territory. Cattle also supplied a year-round food supply.) Tools - (Metal tools were introduced to replace the wooden ones. They were much stronger, sharper and durable.)

5) Further discuss the idea of time and movement. In 1691, when Father Kino, traveled he was most likely carrying supplies from one mission to another. How many supplies were needed? How did they transport them? How long did it take to move those supplies?

6) Assign one of the supplies to each student (or pair of) in Kino's Group. When they meet up with Indians they will be responsible for presenting their gift of supplies and explaining why the Indians should accept it.

7) Repeat steps 5-7 from Stop 1.

Stop 4 - At the fourth mission visita.

1) Huddling in a circle, lay down the picture of the appropriate church for them to look at.

2) Sing the Kyrie chant.

3) Discussion: Father Kino and his group are there to work with the Indians. When this happens, what questions will they ask the Indians? What will the Indians think about Christianity? Will Father Kino be safe? Is there any danger? What kinds of things will Father Kino learn from the Indians?

4) Reemphasize concepts discussed, preparing them for the upcoming Encounter with the O'odham.

The First Encounter - Father Kino Meets the Scouts.

At some point, after approximately 20 minutes, two O'odham villagers will come looking for Father Kino to invite him and his group to visit their village. Formalities must be exchanged, questions asked and fears alleviated. Huddle one last time while the scouts wait to decide if this is the best thing or not. (Remember that Father Kino is both exhausted and has a limited number of supplies with him. How long will it take him to get to Tumacacori? How are they going to move everything? Are these enough supplies that they could use as gifts?) Once decided on visiting, travel to the O'odham village in a ceremonial procession with Father Kino and Father Salvatierra in front and the rest walking behind them in pairs.
VILLAGE COORDINATOR

(To be performed by an adult coordinator, teacher, volunteer, or an aide)

1) Help set up the village site. Select a spot and lay down tarps and materials for the following four activities: mat making, pot making, food preparation and game playing.

2) Assist in costuming the students.

3) Help students get to their respective stations and assist with instructions.

4) Make sure that the village runs smoothly without too much chaos.

5) Help the Scout (another adult) to find Village Elders and hold a council. (five total - the Chief, and one designated from each work group) decide whether or not Father Kino should visit.

6) Using the "O'odham Village Questions" (below), stimulate discussions with all of the villagers in order to prepare them for Father Kino's visit.

7) Once Father Kino and his group arrive, stay with and encourage the "Villagers" to ask appropriate questions. Help to stimulate debate and discussion.

O'odham Village Questions:

- Your people believe in a religion very different from that of Father Kino. How does Father Kino's religion compare? Is it better?
- What kind of gifts will Father Kino bring with him? Are these gifts going to help the village or its people?
- Why should the O'odham people accept Father Kino? How will Father Kino help the people?
- Pretending that this is the first time that you have seen a white person, are there things you would like to know? (How old is he? Where is he from? Does he have children, etc.)
EL DISCUBRIDOR / THE SCOUT

(To be performed by an adult coordinator, teacher, volunteer, or an aide)

Nobody knows for certain how the Indians heard about Father Kino. They probably learned about him while trading with other Indian tribes in areas nearby to where Father Kino was working. What they heard about Father Kino was that he was a good person who was wise, kind and generous. He had a lot of gifts for the people such as colorful beads, metal tools, a crop that would grow during the winter (wheat), cattle and small livestock that traveled with him which they could eat when they were hungry. They also knew that Father Kino wanted to talk about a new God he called Jesus. Maybe they thought Father Kino was a messenger from God himself.

1) Approximately fifteen minutes after the village is set up and running, locate the chief and tell him or her that you have heard about Father Kino and would like to call a council meeting of elders.
2) Help the Chief call a meeting of the four elders (one from each group).
3) Tell the council about Father Kino and stimulate discussion about inviting him to come to the village (See “O’odham Village Questions” below)
4) Once they decide, select a delegation of two students (capable speakers) to find and invite Father Kino.

Personally escort the students to find and invite Father Kino. Take crosses and small gifts with them as a token of good will. Help encourage dialog with Father Kino to emphasize the encounter

O’odham Village Questions:

- Your people believe in a religion very different from that of Father Kino. How does Father Kino’s religion compare? Is it better?
- What kind of gifts will Father Kino bring with him? Are these gifts going to help the village or its people?
- Why should the O’odham people accept Father Kino? How will Father Kino help the people?
- Pretending that this is the first time that you have seen a white person, are there things you would like to know? (How old is he? Where is he from? Does he have kids, etc.)

THE CAST: KINO’S GROUP
FATHER KINO (Spanish Speaker if possible)
Eusebio Francisco Kino was born on August 10, 1645 in Segno, Italy, a small village. He grew up in a wealthy family and went to a Jesuit college when he was eighteen years old. During his studies, he got sick and almost died. He prayed to his favorite saint, Saint Francis Xavier, that if he would help him get better, he would give his life to the church. He got well and joined the Society of Jesus, or the Jesuits.

Father Kino’s main work was to convert the native people to Christianity. He treated them as friends and took time to learn their language and about their culture. He was wise, kind, generous and well-liked by the locals. He was also known to be a hard worker and a good horseback rider.

In 1687, Father Kino arrived at the town of Cucurpe in Sonora, Mexico, and founded his first mission at nearby Cosari. He named it Nuestra Señora de los Dolores, or Our Lady of Sorrows. It became his home and base of operations for the rest of his life.

In January 1691, Father Kino was traveling with his superior, Father Salvatierra, who was there to see whether or not Father Kino was doing a good job. Although Father Kino was in charge, he was also on his best behavior and always treated Father Salvatierra as a friend as well as a special visitor.

Father Kino’s job is to show Father Salvatierra around while accomplishing his obligations to the Indians, such as celebrating mass and saying blessings. He is a wise, kind and generous priest.

FATHER SALVATIERRA (Spanish Speaker if possible)
Juan Maria de Salvatierra was born in Milan, Italy, in 1644 and became a missionary in 1675. He spent 10 years working with the Chunipas Indians in Mexico before being appointed as Padre Visitador in charge of many missions.

His first assignment as a supervisor was to work with Father Kino. Some bad rumors had spread about Father Kino, and Father Salvatierra was sent to investigate. The two men rode for over 200 miles to see Father Kino’s work and together led the expedition to found Tumacacori in 1691.

While traveling together, Father Salvatierra and Father Kino became good friends. Father Salvatierra found nothing wrong with Father Kino’s work. As a matter-of-fact, he was so impressed that he supported Father Kino throughout the rest of his life. Father Salvatierra has been described as square-jawed, hawk-nosed and clear-headed.

Father Salvatierra’s job is to go with Father Kino to observe and help him do his work. He is Father Kino’s friend as well as his superior.

EL VAQUERO \ THE COWBOY (Spanish Speaker if possible)
Father Kino’s expedition to Tumacacori included vaqueros, or cowboys, who tended to the cattle and helped out where needed. They also participated in Masses, singing and other religious work.
The Vaquero’s work is to tend to the cattle and make sure that everything is all right. They help Father Kino whenever they can.

EL INTERPRETE / THE INTERPRETER (Speaks Spanish and English)
Although Father Kino eventually learned to speak the local O’odham language, he probably spoke very little when he came to Tumacacori for the first time.
The Interpreter worked closely with Father Kino to translate for him. He also served Father Kino by helping him understand and appreciate the ways of the Indians.
The Interpreter’s job is to translate between Spanish and English, and to help Father Kino understand and respect the O’odham customs.

THE CAST: O’ODHAM VILLAGERS

O’ODHAM VILLAGE CHIEF (Speaks only English)
All O’odham people had a village chief who supervised on the overall running of the village. Chiefs did not inherit their position but were selected by the people for being wise, strong, intelligent and having people skills. The chief was highly respected.
Although one of the game players, the Chief is also responsible for seeing that village life activities go well. Once the scouts are sent to find Father Kino, the Chief should talk to other villagers to get their opinions and questions about Father Kino and his mission.

(CHICHVIDAM) \ GAME PLAYERS (Speaks only English)
Like most people, the O’odham loved to play games. Men would often spend hours playing games and gambling. Women also played games but not as much because of all the work they had to do. Men and women did not usually play games together.
Play the game of “ginz”. Keep in mind that the order in which you play each stick can make a big difference. Fix up your area in order to get ready for Father Kino’s arrival.

(MAINTADAM) \ MAT MAKERS (Speaks only English)
Mat making was an important work for the O’odham who lived along the Santa Cruz River. Mats were usually made with bear grass or the fibers from the yucca or agave plants. Dyes were made from a variety of different plants, leaves, roots or special dirt. Mats were traditionally made by women.
As Mat Makers, try new designs and patterns to create unique and decorative mats. Fix up the work and home area in order to get ready for Father Kino’s arrival.
(HHA'UM NUATODAM) \ POT MAKER (Speaks only English)

Another important skill in an O'odham village was pot making. Both men and women made clay pots, decorations or tools. Pots for cooking, carrying or storing things were used and appreciated by all members of the village.

*Make small coil pots, experimenting with different designs and patterns. Fix up your area in order to get ready for Father Kino's arrival.*

(HIHIRIDODAM) \ FOOD PREPARER (Speaks only English)

Perhaps the most important job of all was that of the food preparer. These workers, almost always women and children, rarely stopped. They often woke early to haul water, grind the mesquite or corn and prepare the meal for their family or community.

The staple foods of the O'odham people were corn and mesquite beans. The kernels or bean pods were ground into flour and used to make a hot cereal, bread or other good things.

*Use the mano and matate to grind the grain into a fine flour. Fix up your area to get ready for Father Kino's arrival.*
DESCRIPTION: THROUGH GUIDED VISUALIZATION, DISCUSSION, AND STORY WRITING, STUDENTS WILL EXAMINE THEIR FEELINGS ABOUT ENCOUNTERS BETWEEN NEW PEOPLE AND CULTURES

**ENCOUNTER**

**BACKGROUND INFORMATION**

Definition of Encounter:
Webster's New World Dictionary: From the French word *encounter.*
1. To meet unexpectedly; come upon.
2. To meet in conflict; engage in battle.
3. To meet with; face (difficulties, trouble, etc.).
V.i. to meet accidentally or in opposition.

**ACTIVITY**

Part I
- Define and discuss the idea of an "encounter," a casual or unexpected meeting with a person or a thing. Use students' experiences of different encounters, such as a new student in a new school, meeting a new neighbor, emigrating from Mexico or another country, etc.

- Lead the students through a guided visualization similar to the following. Explain that you will be asking questions. The students are not to answer them aloud, but to imagine and picture the answers in their minds. As you read, allow ample silent time between phrases for the students to visualize.
"Relax, close your eyes, and lay your head on the table. . . take a few deep breaths. . . . remember a time when you met a new person. . . . What were your first thoughts? . . . What did you think of their appearance? . . . How old were you? . . . Where were you? . . . Were you afraid? How did you feel? . . . How did they feel? . . . Did they like you? . . . Take a minute to re-experience what happened. . . . When you are ready, slowly imagine seeing the walls of the room, your desk, etc, again. . . . Open your eyes."

Discuss with your students their experiences stimulated by the visualization.

Part II

Have each student complete the following story:

It is now the year 2020 and a spaceship with two extra-terrestrial aliens lands on the playground. You go to meet them and you find out that they are weird looking but friendly. Finish the story, while answering the following:

- What would you say to them?
- Would you welcome them right away? How?
- What concerns would you have? What things might you worry about?
- What would you tell them about our life on earth?
- What would you want to learn from them?
- They claim that they have things to teach us and would like to set up a school. Would you let them?

Enhancements

- Ask each student to describe, in writing, an actual encounter they have had.
OVERVIEW: By participating in a social experiment and discussing cultural differences between the Spanish and the O'odham people, students gain firsthand experience to understand the events leading to the Pima Revolt of 1751.

OVERVIEW: Students will hear accounts of Tubac's environment during different time periods. They will visualize and draw each time period, and record and discuss the potential impacts people had on the environment of the Santa Cruz River Valley.

OVERVIEW: Students will explore present-day trends, gaining understanding of how interests and culture influence people's actions. They will complete an individual cultural questionnaire, make a presentation, and participate in discussion and debate.
DESCRIPTION: BY PARTICIPATING IN A SOCIAL EXPERIMENT AND DISCUSSING CULTURAL DIFFERENCES BETWEEN THE SPANISH AND THE O'ODHAM PEOPLE, STUDENTS GAIN FIRST HAND EXPERIENCE TO UNDERSTAND THE EVENTS LEADING TO THE PIMA REVOLT OF 1751.

REVOLT

BACKGROUND INFORMATION

To begin to understand the Pima Revolt we need to look at the people and beliefs of the early 1700s. Although the O'odham (Pima) were generally peaceful people, the neighboring Apaches were not. Attacks were regular, aimed at both O'odham people and Spanish settlers. A Spanish settler who had been raided by Apaches might not recognize the difference between Apache and O'odham Indians. Much misplaced hostility developed. How many difficulties do you suppose the O'odham experienced because of the Apaches? In addition, there were individual prejudices regarding native people. Although Spanish law recognized Indian rights, many settlers regarded them as savages. With such beliefs, how do you think the settlers treated the Indians?

Incidents of abuse caused by prejudice and misplaced hostility occurred throughout the early 1700s, increasing as the Spanish population grew. Anger and resentment built. These incidents came to a head in 1751 under the leadership of Luis Ouacpicagigua (Wakpee-ka-gee-gwa), a native O'odham. Known as a bold and boastful man, Luis showed promise and did well for himself under the Spanish system, eventually achieving the title of Captain General of the northern O'odham troops. Although he seemed to be well supported and supplied by the Spanish, Luis felt that he did not get the respect he deserved. He became ever more bitter. In the Fall of 1751, he passed through Guevavi, where he was entertained by Father Garrucho, and given 15 head of horses. However, a short time later at the mission at Suamca, he was belittled by Father Keller in front of a crowd as “a chimichec dog whose proper attire was a coyote skin and a loin cloth and whose proper pastime was chasing rabbits and rodents in the hills.”
At the mission Guevavi during the Fiesta de San Miguel on September 29, 1751, Luis' friend, the intoxicated Pedro, alias "Chihuahua," joined in the festivities. Like Luis, Pedro was boastful and attempted to prove his power by displaying a military baton. Father Garrucho challenged his authority to carry it. Pedro continued to cause trouble, was interned and questioned by Lieutenant Moraga about conspiracies with Luis Ouacpicagigua. He did not confess, and received six to seven lashes. The following day Captain Menocal arrived to continue questioning him. Unable to get results, they executed Pedro Chihuahua and hung him in a tree as a morbid example.* Pedro Chihuahua's execution had the opposite effect of deterring insubordination, apparently pushing Luis Ouacpicagigua into action. The insurrection was first reported at Guevavi by a bloodied Juan de Figueroa of Tubac on November 21, 1751. According to Juan, the O'odham Indians had gone crazy and attacked both Tubac and Arivaca. The reality, however, was that premeditated attacks were staged throughout the Pimeria Alta, including Tubutama, Ati, Caborca, Busani, Pitiquito, and Oquitoa. They ransacked and badly damaged San Xavier del Bac and Guevavi. More than a hundred Spanish settlers died, including two priests.

The revolt continued full force until Luis' troops experienced a stunning defeat at Arivaca. One hundred Spanish soldiers boldly held off two-thousand O'odham warriors, leaving forty-three O'odham dead. Discouraged and tired, the O'odham's energy for the revolt began to die. On March 18, 1752, Luis surrendered on hands and knees begging for mercy. The revolt was over.

Following the revolt a series of investigations occurred to determine the cause. Diego Ortiz Parrilla, Governor of Sonora, quickly accused the controversial Jesuits with examples of abuses and cruelty. Further inquiries determined, however, that the fathers were not at fault, often displaying exemplary actions towards the Indians. The real cause seemed to be at least in part, Ortiz Parrilla himself, who apparently was in conspiracy with Luis Ouacpicagigua! The end result was that Parrilla was promoted and moved from his position while Luis ended up walking free, only to start a few more revolts years later.

The Pima revolt, although short-lived, put fear in the Spanish settlers which resulted in a petition to the Spanish Crown for better protection. The crown granted their request, and a presidio (a fort or garrison of soldiers and their families) was completed in Tubac in 1752-53. Thus, Tubac became the first European settlement in Arizona. At the same time, the Jesuits wanted to build a church closer to the new Presidio, yet far enough away for autonomy. Subsequently, they moved the mission of Tumacacori to the west side of the river and built the first church at the present site of Tumacacori, completing it by 1757. □1

* The actual cause of Pedro Chihuahua's internment and execution is vague. Records describe the event but fail to mention the actual charges. The author is assuming that his charges were for treason.
ACTIVITY

Part I
This activity will take your students through an actual experiment in which they will personally experience both positive and negative effects of an encounter with a different “culture.” It will serve as a transition to discussing and learning about the encounters that led to the Pima Revolt of 1751.

- The teacher is to take on a different teaching style from normal for a minimum of one period or longer. Drastically change your routine so that you impress the students both positively and negatively. For example: Give them a treat that you normally would not; change the seating arrangement; if the norm is to allow talking, enforce silence or vice versa; let them out early for recess; demand that they remain in their seat, etc.

The idea is to incite a mini-revolt in your class!

- After conducting the encounter experiment for sometime, you will most likely be close to having a revolt! Before a total mutiny, stop and discuss with the students the pros and cons of your actions. Did they understand the reasons for your actions? Was this just cause for a revolution? If not, what would be?

Part II
- Using a Venn Diagram (below), lead students in a brainstorming activity to contrast beliefs and lifestyles of the O’odham Indians and the early Spanish settlers or missionaries. Use the following list as a reference to stimulate the discussion. Which listed words apply only to the O’odham? Only to settlers? To both?

```
O’ODHAM
Corn - Squash  Respect for Elders
Mesquite - Local Plants  Fishing
Daub and Wattle House  Hunting
Cotton Clothing or Breech-clouts  Farming
Oral History  Stories
Verbal Communication  Written Documentation
Concensus Leadership  Mail

SETTLER
Wheat - Cattle
European Imports
Adobe
Robes - Uniforms
Written Documentation
Corporal Punishment
```

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ENCOUNTERS, Unit V, Pima Revolt
- Review and Discussion: What characteristics were unique to the O'odham people? How about the settlers? What did the O'odham and the settlers have in common? What kind of activities might they have done together? Were there things that were extremely different? Could these differences have led to disagreements or fights? How about war or revolution?

- Using the Background Information (pages V - 1 and V - 2), explain and discuss the events that led to the revolt.

**Enhancements**

- Assign students to write a one-paragraph to one-page essay examining the different belief systems. What differences might make one group angry and lead to a revolt?
- Use excerpts from different accounts of the Pima Revolt. Have students try to put together their own story. Explore other historical events in the same manner.

**RESOURCES AND REFERENCES**

**DESCRIPTION:** STUDENTS WILL HEAR ACCOUNTS OF TUBAC'S ENVIRONMENT DURING DIFFERENT TIME PERIODS. THEY WILL VISUALIZE AND DRAW EACH TIME PERIOD, AND RECORD AND DISCUSS THE POTENTIAL IMPACT PEOPLE HAD ON THE ENVIRONMENT OF THE SANTA CRUZ VALLEY.

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**PEOPLE AND THEIR ENVIRONMENT**

**ACTIVITY**

**Part I**

**STEP 1:** Read aloud the description and quote regarding Tubac "before 1752" and the establishment of the township (Master Page V - 8). Have the students try to imagine, painting a picture in their minds of who lived there and what it might have looked like. Upon completion, ask each student to make a sketch.

**STEP 2:** Based on their impressions from the descriptions of Tubac, have students answer the questions on Master Page V - 11 as best they can, either individually, in small groups, or together as a class.

- Repeat STEPS 1 and 2 for each of the following periods, completing Master Page V - 11 for each time period:
  - **After 1752:** The Spanish settlers had brought new ideas, technologies and lifestyle to Tubac. (Master Page V - 9)
  - **1900s:** Many changes occurred with the Anglo settlement and the coming of the railroad, industry and technology. (Master Page 10)
  - **Today:** (No reading.) What is the current status of the environment around Tubac and Tumacacori?
Part II - Discussion

- Discuss and compare your students' answers on Master Page V - 11 for each time period. Who lived in Tubac? Was there more than one culture? What effect, if any, did these people or their culture have on the environment? Did the number of people (population) have any effect on the environment? Was anything threatened, drastically changed, endangered, or made extinct?

- Ask the students:
  - If you could live in Tubac during any one of the four time periods, which one would you pick? Why?
  - Which time period would you least like to live in? Why?

- Hypothesize possible outcomes should Tubac become the size of Green Valley, or Nogales. What are the pros and cons?

**Enhancements**

- Ask students to draw a picture of Tubac in 2050. If they were in charge of developing the town, what would they do to make it a great place to live?
- Invite a local developer or real estate agent to talk with them about present or potential development projects in the Tubac area.
- Take a field trip to the *cienega* at Meadow Hills Housing area in Nogales.

**RESOURCES AND REFERENCES**

TUBAC: A HISTORY OF POPULATION

- 1691 - Kino arrives at the Sobaipuri (a branch of the O'odham or Pima nation) of Tumacacori and establishes the first European mission in Arizona.
- 1751 - Led by Luis Ouacpicagigua, the Pima revolt and attack the small population of Spanish living in Arivaca and surrounding rancherias.
- 1774 - The Tubac community is a mix of Spanish and mestizo (Spanish and Indian). Juan Bautista de Anza, captain of the Presidio at Tubac, leaves to find a route to California.
- 1776 - The Tubac garrison is moved to Tucson leaving only Pima troops to protect Tubac. Apache raids decrease the population to 150.
- 1783 - Apache raids cause the town to be abandoned.
- 1786 - Spanish Viceroy bribes or subsidizes the Apaches; 300 Pima soldiers stationed at Tubac.
- 1802 - Population is approximately 500, O'odham (Pima Papago and possibly Opata), Mestizo and Spanish.
- 1821 - The Mexican War of Independence causes the removal of almost all Spanish. Apache subsidies (bribes) are taken away. Apaches raid again.
- 1824 - Population is approximately 450. Tubac was reestablished as a Mexican Presidio and provides some protection to settlers and farmers from increasing frequency and violence of Apache raids. Residents are mestizo and mixed Indian.
- 1849 - Population fluctuates between 0 and 250. Tumacacori is abandoned because of heavy Apache attacks and a cold winter.
- 1854 - The Gadsen Purchase. Tubac is now part of the Arizona Territory.
- 1856 to 1861 - More than 1000 people, mainly Anglo-American and mestizo now live in Tubac. Troops are located in nearby Fort Buchanan to protect the Silver mining boom.
- 1861 - Tubac is abandoned again as the troops leave for the Civil War. Apaches drive away or kill most people in Nogales.
- 1864 to 1868 - Two resettlement attempts (up to 150 people) are aborted due to Apache attacks.
- 1886 - Geronimo surrenders and Apache raids end. Tubac is never again abandoned.
DESCRIPTIONS OF TUBAC

Before 1752

Description:

Before 1752, the Santa Cruz Valley looked different than it does today. The river was meandering and surrounded by cienegas (swamps or wetlands). Rainfall was probably not much different from today. However, when it did rain, the cienegas temporarily held the water until it had time to soak into the ground, returning it to its natural underground storage, or aquifer.

The cienagas or wetlands also offered water, food and homes for wildlife such as jaguar, grizzly bear, wild turkey, grey wolf and bighorn sheep. None of these are found in the Santa Cruz Valley today.

The river (riparian) and forest (mesquite - bosque) environments were probably dense with a lot of different trees, shrubs and other plants. The main human inhabitants were the "Sobaipuri" (a subgroup of the O'odham) who lived in simple mud and stick homes, and did small-scale farming and hunting along the river.

During the twenty years immediately after Kino, the ground he had gained appeared to be in danger of being lost entirely, principally because the active Indian enemies constantly harassed the frontier settlement and the vulnerable O'odham gathered in pueblos were without adequate means of protection. Actually, however, enemy Indians had begun their raids upon the Spanish frontier before Kino's time, and as early as 1703 Kino had made the following entry in his memoirs:

"Every year, especially since the Jocomes, Janos, and Sumas revolted, there are regularly many thefts of horses, cattle, sheep and goats, and even murders of Christian Indians, Spaniards, soldiers, etc., particularly on the frontiers of Pimeria. And although for the prevention of so many and so grievous injuries there have been conceded and provided by his royal Majesty two presidios of fifty soldiers each, that of Janos and the flying company and presidio of this province of Sonora, the enemies, the above-mentioned Jocomes, Janos, and Sumas, as well as the Apaches, etc., have been pushing and each year continue to push farther inland into the lands of the Christians, and into the province of Sonora and this Pimeria, there being no adequate check or resistance to so many robberies and murders as every year so grievously have been experienced."

From Doris Bent's "The History of Tubac - 1752 - 1948"
After 1752

Description:

Because of the Pima Revolt of 1751, the settlers in the Santa Cruz Valley asked Spain for a presidio (a garrison for soldiers and their families) to be built at Tubac. It was completed about 1752. The nearby Jesuit missionaries also decided that a church was needed close enough to the presidio for protection, but far enough away for independence. They chose the spot where Tumacacori is now located. The first church, now only an adobe foundation, was built sometime between 1752 and 1757. The introduction of the presidio at Tubac and the church at Tumacacori established the first permanent non-native settlement in present-day Arizona.

In 1752, the Spanish established a Presidio that included fifty soldiers, their wives and children. With them came new farming techniques, used guns to make hunting easier, and imported cattle and domestic sheep. Within two years 300 people were living in Tubac. The population grew to 500 by 1767. Areas were cleared for the Presidio and for farming.

During the next hundred years changes to the environment were minimal. Apache attacks kept the population small. No significant development occurred. The main change might have been a decline in animals due to hunting. The human population varied, but remained low.

A few adventurous pioneers grew crops, raised stock, or operated small gold and silver mines in the outlying areas such as Arivaca and the San Pedro Valley, but most Spaniards continued to live along the Santa Cruz. The rest of Arizona remained in Native American hands.

Despite their small size, communities like Tucson and Tubac were as tenacious as the mesquite trees that provided most of their shade. Their appearance was not impressive: flat-roofed adobe buildings clustered beside a ragged patchwork of fields. As Tucson's Captain José de Zúñiga noted in 1804, "We have no gold, silver, lead, tin, quicksilver, copper mines or marble quarries." He went on to say, "The only public work here that is truly worthy of this report is the church at San Xavier del Bac."

Beneath the dust and manure and sun-baked bricks, however, the roots of Hispanic Arizona spread wide and deep. Spanish frontiersmen were as tough as any pioneers on the North American continent. They knew the desert and they knew the Indians—fighting, sleeping, and dying with Tohono O'odham from the western deserts, Pimas from the San Pedro Valley, Apaches from the eastern mountain ranges, and even Yaquis from southern Sonora and Yumans from the Colorado River. Tucson, Tubac, Guevavi, and other settlements along the Santa Cruz were multi-ethnic in every sense of the term.

Most Hispanic residents of Arizona found their lives circumscribed by river, desert, and the Apaches. Theirs was largely a subsistence economy, one wedded to the floodplain of a shallow intermittent stream. The most important crop was wheat, followed by corn, beans and squash. The most important animals were cattle and horses, although a herd of 5,000 sheep at Tubac produced enough wool for 600 blankets in 1804. During times of relative peace, farming and ranching expanded along the Santa Cruz and spilled over into watersheds. But whenever Apache raiding intensified, herds dwindled, fields were abandoned, and families took refuge behind presidio walls.

It was a harsh, hardscrabble way of life. One that swung like a pendulum between flood and drought, peace and war. Nonetheless, it endured. The people of Hispanic Arizona may not have been able to extend the empire, but they held on to their little piece of it in the face of great odds. Like rawhide, the sinews of their culture bound them together and bound them to the land.

1767 - From Thomas E. Sheridan's "Arizona"
**1900s**

**Description:**

Between the 1880s and the 1970s the results of the Industrial Revolution took its toll on the environment along the Santa Cruz River. After Geronimo surrendered in 1886, Tubac resettled and was never again abandoned. The population steadily increased and started to have an impact on the environment and its resources. New technology also brought changes to the area never seen before, mainly the railroad and big cattle operations. The railroad allowed products and crops to be easily transported. This resulted in an increase in large-scale agriculture and cattle ranching. Cienegas and mesquite bosques were made into cotton fields. Thousands of cattle grazed and trampled the native plants while other imported species were introduced. Hunting and the killing off of “undesirable” wildlife, such as wolf and grizzly bear, increased.

The invention of new, more efficient water pumps and well-drilling equipment allowed people to remove water from the underground aquifer easily. The disappearance of the cienegas also caused the river to swell and flood during the monsoon rains, threatening land owners. In some areas concrete barriers were installed, causing the water to be channeled away from the area even more quickly, rather than refilling the aquifer.

By 1970 the water in the Santa Cruz River was far below the level that had existed in 1752. Introduced plant species replaced many native species. Some wildlife species, such as the beaver and jaguar, were completely removed from the area. The depleted soil could no longer grow cotton.

*Tubac was at this time inhabited by mostly Mexican-born families that made their living upon small farms and ranches raising a few cattle and lots of tomatoes, chilies and melons. Some large ranches had very large cattle industries. European-born Americans accounted for most of the village enterprise and grew vegetables not favored by the Mexican-born residents (carrots, beets, and cabbage). Everyone lived in adobe dwellings, some as old as the presidio (built in 1753).*

Apache raids were again plaguing Arizona residents at this time. In Tubac, the raids were limited to the taking of livestock and horses, leaving the people unharmed yet economically debilitated. By 1886, Tubac commerce had been so suppressed by fear of the Apaches, and the discontinued mining activity at Solero that the population declined considerably. The Tubac Scouts organized forces and successfully ended the Indian raids that had threatened Tubac’s prosperity and security.

*The number of pupils attending the school at Tubac continued to increase throughout the 1890s. Teachers Sarah and John Black received a salary of between $75 and $80 per month each.*

*With the rapidly growing school population of the 1890s came the development of community pride. Nogales was growing and Tubac was becoming less dependent upon Tucson.*

*From Doris Bent’s “The History of Tubac - 1752 - 1948”*
DO PEOPLE AFFECT THEIR ENVIRONMENT?

Answer the question below for each time period:

<table>
<thead>
<tr>
<th></th>
<th>Before 1752</th>
<th>After 1752</th>
<th>1900s</th>
<th>Today</th>
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<tbody>
<tr>
<td>Who lived in Tubac?</td>
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<td>What Cultures?</td>
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<td>What animals were</td>
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<td>found around Tubac?</td>
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<td>or extinct?</td>
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<td>What did the river</td>
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<td>look like? Where did</td>
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<tr>
<td>people get their water?</td>
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<td>Was there enough?</td>
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<tr>
<td>How many people were</td>
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<td>there? Did the number</td>
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<td>of people affect the</td>
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<tr>
<td>environment? How?</td>
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</table>
DESCRIPTION: STUDENTS WILL EXPLORE PRESENT-DAY TRENDS, GAINING UNDERSTANDING OF HOW INTERESTS AND CULTURE INFLUENCE PEOPLE'S ACTIONS. THEY WILL COMPLETE AN INDIVIDUAL CULTURAL QUESTIONNAIRE, MAKE A PRESENTATION, AND PARTICIPATE IN DISCUSSION AND DEBATE.

PEOPLE, CULTURE AND THE SANTA CRUZ

ACTIVITY

Part I - Understanding culture

- Hand out copies of (or provide the information for students to make their own) “Cultural ID Cards” (Master Page V - 16). Ask each student to complete it. When students are done, summarize their answers on the board. Discuss similarities and differences. Are there any trends? Does cultural identity have anything to do with their answers? How and why?

- As a hypothetical situation, explain to the class that they must plan for a dinner party. Ask them to come to a consensus on one of the following: American - (steak, potatoes, etc.), Mexican - (enchiladas, tacos, etc.), Chinese - (chow mein, fried rice, etc.), Italian - (spaghetti, lasagne, etc.), East Indian - (curry, chapatis, etc.), Japanese - (tempura, teriyaki steak, etc.), Thai - (pad thai, curry, etc.), Greek - (gyros, baklava, etc.), other. (If possible, get sample restaurant menus for references.) You may wish to break the class into groups. After a specified period of time, discuss the process of how the students did or didn't make a decision. Was it easy? Why or why not? Were there differences that hindered their ability to choose? Did their culture have anything to do with their choices?
Part II - Special Interests and the Environment

- Introduce the groups listed below, each of which might want to use the Santa Cruz River:

- Off-road vehicle users
- Developers
- Picnickers
- Hikers
- Birders

- Discuss how groups like these examples are often comprised of people who share common interests, hobbies or cultures. For example bicyclers, golfers, hunters, artists, rock & rollers, rappers, cowboys, etc. Finally, define and discuss the concept of stereotypes. Explain that although interests and cultures may help to define a group, not all members of the specific group can be stereotyped.

- Divide the class into five working groups. Assign each group to represent one of the user groups, giving them the corresponding "Special Interest Groups" card from Master Page V - 17. Each student is to pretend that they are members of that club or special interest group. The goal of the meeting is to prepare for a planning meeting about the future of the Santa Cruz River. The club meeting agenda is as follows:

1) **Discuss your group**: What kind of people are in the group? Do they share any common interests? Does the culture of the members have anything to do with the group? How do they use the river? How often do they go there? Do they help the river or its environment in any way? Do they hurt it?

**Discuss the other groups**: What are the other groups' views about the river? How do they use the river? From your group's point of view, are they helping or hurting? Is your group on good terms with them? Will they support you in a debate? How can you work together so that everyone is happy.
2) Prepare for the upcoming debate: Create a small presentation, (a speech or an advertisement) to convince others that your group's activities at the river are important. Speak out for your cause!

Part III - The debate

- Once each group is ready, call the whole class together for a public hearing. Have each group present their position to the other groups. Allow some time for questions after each presentation. Upon completion of all group presentations, open the floor to debate.

- Final assignment: Come up with a plan for managing the river where every group will be content.

Enhancements

- Have students research different cultures, completing the "Cultural ID Card" for each.
- Use menus from local restaurants as a way of introducing various American sub-cultures.
- Invite guests from each of the groups represented in Special Interest Groups along the Santa Cruz River to speak to the class.
- Use magazines and newspapers to find examples of stereotypes, special-interest groups, or cultural groups.

RESOURCES AND REFERENCES

### Cultural ID Card

<table>
<thead>
<tr>
<th>Name: ___________________</th>
<th>Nicknames: ___________________</th>
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<tbody>
<tr>
<td>Birthplace: ___________________</td>
<td>What is your favorite . . .</td>
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<tr>
<td>First Language: ___________________</td>
<td>Color? ___________________</td>
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<tr>
<td>Second Language: ___________________</td>
<td>Music? ___________________</td>
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<td>Grandparents’ Place of Birth: ___________________</td>
<td>Dance? ___________________</td>
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<td>Grandparents’ 1st Language: ___________________</td>
<td>Game? ___________________</td>
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<td>Cultural Background: ___________________</td>
<td>Clothing? ___________________</td>
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<td>Religion (optional): ___________________</td>
<td>Hobby? ___________________</td>
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<td>Religion (optional): ___________________</td>
<td>Hobby? ___________________</td>
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# SPECIAL INTEREST GROUPS ALONG THE SANTA CRUZ RIVER

<table>
<thead>
<tr>
<th>OFF ROAD VEHICLES USERS</th>
<th>DEVELOPERS</th>
<th>PICNICKERS</th>
<th>HIKERS</th>
<th>BIRDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use motorcycles and ATVs with unrestricted use. All other users are welcome.</td>
<td>Primary goal is to make a housing development. Areas of the river will be preserved as part of the scheme. Others are welcome if they respect homeowners rights and rules. Problem: Destroys habitat and natural beauty; causes noise and air pollution; disturbs others trying to enjoy the solitude of the river.</td>
<td>Local families like to enjoy the river. Kids enjoy wading and playing while adults like to picnic or party. All others are welcome at the river. Problem: Litter; possible water pollution; potential health and safety hazards.</td>
<td>The Juan Bautista de Anza Trail allows hikers to walk between Tubac and Tumacacori. Hikers like a well-maintained, litter-free trail with information about the natural history. All users who respect the natural environment without hurting it are welcome. Problem: Any group or activity that damages or disturbs the habitat and its natural beauty is not welcome.</td>
<td>The Santa Cruz River provides some of the best bird-watching in Arizona. Birding is best when the area is quiet and undisturbed. A strict birder usually prefers the area to be preserved with limited or no access for other user groups except for quiet observers and researchers. Problem: Primary goal is to preserve the habitat at the possible exclusion of other groups.</td>
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Unit VI
The Apache

Apache Life ................. page VI - 1
OVERVIEW: Through reading and discussing an essay about the Apache, and participating in various traditional Apache activities including folktales, songs and games, students will gain understanding and appreciation for Apache history and culture.

An Apache Way of Learning ........ page VI - 13
OVERVIEW: Through participation in one or more nature activities similar to those the Apaches might have done while growing up, students will learn about the Apaches’ relationship to their natural environment.

Adapting to Your Environment ........ page VI - 17
OVERVIEW: Through discussion and participation in a game comparing Apache and Spanish warfare strategies, students will understand how the Apaches were able to successfully combat the Spanish soldiers.
DESCRIPTION: THROUGH READING AND DISCUSSING AN ESSAY ABOUT THE APACHE, AND PARTICIPATING IN VARIOUS TRADITIONAL APACHE ACTIVITIES INCLUDING FOLKTALES, SONGS AND GAMES, STUDENTS WILL GAIN UNDERSTANDING AND APPRECIATION FOR APACHE HISTORY AND CULTURE.

APACHE LIFE

BACKGROUND INFORMATION

The Apache people and culture are an integral part of the history of the Pimeria Alta (Upper Pima land). Their role, however, was not one of friend to the missionaries and O'odham, but one of enemy. Father Kino recorded his first contact with Apaches when he described them attacking the O'odham in the San Pedro Valley. From this first contact, until the surrender of Geronimo in 1886, the history of the Apaches in the Santa Cruz Valley is full of warfare and violence.

The origins of the Apache Nation come from the northern Athabascan people who historians believe emigrated to the Southwest sometime in the fourteenth or fifteenth century. Little is known about them at this time and many questions regarding their lifestyle and culture remain, debated by scholars to this day. By the time of contact with Kino, however, the Apache culture was one of nomadic hunters, gatherers and raiders.

Whereas the O'odham invited and welcomed Kino, the Apache did not. Did the Apaches have unrecorded contact with either the O'odham or the Spanish prior to Father Kino? Was there already an existing conflict with the O'odham? Was it aggravated by the arrival of the Spanish? Whatever the reason, the Apache were bitter enemies of the O'odham, missionaries and settlers.

The activities in Unit VI are an introduction to the Apache people and culture with an attempt to look at their attitudes, training and warfare.
ACTIVITY

Part I
- Using the story, songs and games from "Why We Have Night and Day", (below) introduce students to Apache culture. As much as possible, learn and tell the story as a storyteller would, interweaving the songs, game, and story as described. If available, play the associated Apache songs as part of the story.

Part II
- Explore the Apache people and culture in depth by reading aloud with your students the essay "The Story of the Apache People" (Master Pages VI - 6 to VI - 9). Use the worksheet "The People Called Apache" on Master Page VI - 10 to stimulate discussion and evaluate students' comprehension.

WHY WE HAVE NIGHT AND DAY *

At the very beginning of the world, the sun shone all the time and there was never any darkness. Yusen, the Creator, kept Night prisoner in a sack which he gave to Badger to safeguard.

One day, while Badger was traveling through the land, Coyote, the trickster, saw him carrying the large sack in which Night was kept.

Coyote, always thinking about food, thought that Badger was carrying something really good to eat so he started walking along with Badger. After a while Coyote said, "Old Man Badger, you look pretty tired. Why don't you let me carry that heavy sack for awhile?"

Badger knew Coyote and suspected he was up to no good (as usual) and replied, "I was given this sack to protect and I can't let anybody open it or look in it. I know you, Coyote. You're just looking for a free meal, but there's nothing to eat in the sack."

Right then, Coyote figured there must be something really good to eat if Badger was trying so hard to hide it from him, but he reassured him, "No Old Man, I was just offering to help you carry that heavy load since you looked so tired from traveling. I know there isn't any food in the sack. Just think about it. You're really looking very tired and need the rest."

Coyote, of course, sounded very sincere. So, as they traveled along for a while, they sang a traveling song to make the miles go faster:

"I live, you live, we all live a good life."
A while later, when the sun was at its hottest, Badger finally said, “Well, Coyote, I guess you’re right about how tired I am.” He gave his sack to Coyote. “You guard this carefully and don’t let anybody open the sack. I’m going to lie down and rest awhile over there in the shade.”

With that, Badger wandered over to some bushes, lay down in the shade and was soon fast asleep.

As soon as he heard Badger snoring soundly, Coyote sat down and said, “Now I can see about that delicious food Badger tried to hoard for himself and have something great to eat.” Coyote is always hungry.

Coyote opened the sack and Night escaped and there was darkness everywhere. Coyote forgot all about being hungry and scurried off to hide and think up some story to tell Badger about that sack.

Some of the creatures were pleased by the darkness which completely covered the Earth. These were the four-legged who were predators who could better sneak up on their prey and capture them. Those with evil power like Snake, Owl, and other monsters reveled in the advantages Night gave them over those with good power.

The birds and insects feared Night and the new dangers caused by the darkness. They were afraid they’d be killed by the creatures of darkness. Finally, they met together to plan how to restore Light.
All the animals were called in for a council and the ones preferring Light told the Night creatures, “You want Night and we want Day. Let’s have a moccasin game and see who wins -- if we win, it will be Day forever, but if you win, you can have Dark.”

All the animals and birds agreed to this and they held the first moccasin game--the same type of game still played today. This first game was held in the winter, at night, and that is when it should still be played.

First, each side made score-keeping sticks out of yucca leaves and placed these in a pile between the sides. Then, the players buried four moccasins in the sand and hid a small piece of bone in one of the moccasins. If the other side could guess which moccasin contained the bone, it would get one point; if they guessed incorrectly, the hiding side would get the point. At first, the side winning the point would take a stick from the middle pile; then, after all sticks were taken, points won would be taken from each side’s pile of scoring sticks. When all the sticks are taken from one side, the game is over.

Well, the game started and the score kept pretty even for a long while. The teams sang songs and chanted to bring luck and to distract the other side while the piece of bone was being moved from moccasin to moccasin.

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**Moccasin Game Song**

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he ya no he ya no he yo-ngo he ya no he ya no he
yo-ngo he ya ah he ya he yo-o he ya he
ne-e ya. he ya na he ya na he yo-ngo
he ya ah he ya he yo-o he ya he ne-e ya.
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Pretty soon, the game was so close that both sides began to cheat. Gopher was playing for the animals and would burrow down under the moccasins and see where the bone was hidden. When he saw where it was, he tunneled back up and told the animals where to "guess." When the animals had the bone, he would move it quickly to another moccasin every time the birds guessed correctly so they would lose the point.

The birds had a few tricks of their own. To keep the animals from knowing how many sticks they had left, the birds hid spare sticks up Turkey's leg so the animals would think they were winning and would be less cautious. Before the game, Turkey didn't have any tendons on his legs, but the sticks stretched his legs so much that they now have the longest legs. When it looked as if the animals would win, the birds would fool them by pulling more sticks from Turkey's leg.

Roadrunner was the best player of all, but he'd been sleeping for most of the time. The birds and insects woke him up so he could play for them while they sang more songs with the power to ruin the animals luck. While they sang these powerful songs, Gopher went blind and couldn't help the animals any longer. This is why gophers have such tiny eyes today.

Finally, the game got so close that Coyote (who sneaked back in to see what the excitement was--and to look for something good to eat, of course) got up and left the animals and stood by the fire thinking, "I'll just help whoever's winning so I'll be ahead no matter what." Coyote is like that.

The animals finally began to lose badly and the Owl-Man Monster got up and started to run away: "I can't run very fast and the birds will kill me when they win." As the Birds won more and more points, the Sun began to rise and start Day. Pretty soon, some birds noticed Owl-Man Monster running and started to chase him. He got caught in the cholla cactus thorns and the birds got him there, then started after the other animals and monsters.

Before the birds could kill all the evil animals and monsters, some of them got away. That is why we still have some like Snake and Owl today.

Because the game never was completely over and some of the animals escaped, Night still exists for a time each day and is full of danger for the day birds and good animals.
Playing the Moccasin Game

There are many ways to play the Moccasin Game today. A good way to imitate the first game is to place moccasins (or small cups, etc.) under a sheet or blanket on the floor to simulate placing the moccasins in the sand. (For younger students, only two moccasins or cups could be used to make play more enjoyable.) A small marble or other object is used for the piece of bone. This object is hidden by the team’s player and the moccasins shuffled around to confuse the other side. The second team then guesses which moccasin hides the object and wins a point (small sticks can be used as counters) if correct and then hides the object. If the guess is incorrect, the first team continues to hide the object until losing a point.

All the time, the teams should sing songs to confuse their game opponents and increase their enjoyment of recreating this game. Usually, the “words” to a moccasin game song are just nonsense to add to the confusion. They also might include fragments of other songs, or the phrases might be out of order.

* The story, game, and songs from “Why We Have Night and Day,” are taken directly from When The Earth Was Like New, pages 76 - 81, with permission from the authors, Chesley Goseyun Wilson, Ruth Longcor Wilson and Bryon Burton, World Music Press, Danbury, CT, 1994.
THE STORY OF THE APACHE PEOPLE

Historians believe that a little before the year 1600, or about 400 years ago, the Athabaskans people came to Arizona. Long before this, their ancestors had lived far north in Canada. They traveled slowly toward the south through the plains just east of the Rocky Mountains. At last they arrived in the Southwest. They separated into seven groups and each group lived in a different place. Many Apaches who still live in this state are part of the "Western Apache" group, descendants of the Apaches who lived in the Pimeria Alta during Kino's time. They are the people we discuss here.

The Apaches call themselves "Nde", which means "People." When they first arrived in Arizona and New Mexico, they found many people who spoke different languages living there already. These people were farmers and hunters. Some of them lived in stone houses that were grouped together like apartment buildings. One group in New Mexico, called the Pueblo Indians by the Spaniards, lived in stone houses grouped closely together like in apartment buildings. Others called the Pima (Akimel O'odham) and Papago (Tohono O'odham) lived in villages in the desert and along the rivers of Southern Arizona near places now called Phoenix and Tucson.

At first, Apache people moved a lot. In the spring and summer, they camped in the mountains. During that time they hunted deer, rabbits, and other wild animals. They also started gardens of corn, beans, squash and tobacco. They gathered many wild plants too. Cactus fruit, acorns, agave, walnuts, juniper berries, and many other good things could be found near their mountain camps. The women had to be able to identify the plants, know where each plant grew, when it would be ripe, what tools to take to collect it, how to cook it when they go home, and how to store the leftovers so they wouldn't spoil.

As it got colder and snow began to fall, the people moved their camps to lower country where it would be warmer for winter. The men continued to hunt and the women spent time tanning hides and making them into bags, clothing, and containers.
In the spring, the people went back to their mountain camps and planted their gardens again. They also continued to hunt and to collect wild plants. Toward the end of the summer, if there was extra food, it was dried so that it could be saved for a long time. Apache women made large baskets to store this food. Thin sticks of willow, cottonwood, or sumac were stitched together with split sticks of the same material. The split pieces became flexible when soaked in water for a while. The black in the designs was made from the devil's claw plant and the red color was made with the bark of the yucca root.

There were other kinds of baskets, too. For carrying things, they made twined pack baskets that had buckskin fringes and painted designs. For carrying water, the women made a bottle-shaped basket and then covered the outside of it with pitch (sap) from a tree so that the water wouldn't leak out. You can probably imagine that baskets would be more useful than pottery for people who moved around a lot. They are not very heavy and they do not break easily. Today, since Apaches don't move very often and because they have stores, they can buy metal or plastic containers. They also have cars and pick-up trucks for carrying things.

In addition to the many baskets for carrying things, the Apache had a bit of pottery for cooking. They made shapes that were just right for cooking food quickly over a campfire. These pots were dark in color, had pointed bottoms and slanting sides. They could be placed right in the fire and could heat the sides as fast as it heated the bottom. This way it didn't take long for the people to get dinner cooked when they were on a trip.

Babies were put in cradles so that they would be safe and easy to carry. A long time ago, these cradles were made of wood and deerskin. Some are still made today, but they are made with yellow canvas instead of deerskin. A baby is usually happy in his cradle. He feels warm and comfortable. He has some toys or decorations to look at and he can be with his mother listening to her sing or talk to him. When his mother hangs the cradle in a tree he can also watch the people all around him.

Long ago, when the Apache people moved a lot, they had different kinds of houses. People who lived on the edge of the plains had teepees made of skins and the people who lived in the mountains made grass houses called "gowaa" or "wickiups". Houses in those days were used mostly for sleeping and storing things. Most of the cooking and other work was done outside like we do when we camp.

Today, Apaches live in wood or stone houses, however, some people also build wickiups, too. They live in small communities where they have police stations, post offices, churches, stores and gas stations. Usually the people live with their families--
mother, father, children and sometimes an aunt, and uncle or their grandparents. In the old days bigger families lived together in one place. You can imagine there would be many people if you lived with your parents, aunts and uncles, your sisters and their husbands and children, your grandparents, and perhaps some cousins. A good thing about having this many relatives nearby would be that you would always have plenty of help to do the work. You would always have someone to play with as well.

These days, Apache boys and girls go to school and learn the kinds of things that other children learn. In the summers, boys may help their fathers with rounding up cattle or farming and harvesting crops. Many boys still learn how to ride horses.

When a girl is growing up, it is important for her to learn to work hard and to learn about the things she will do when she is a wife and mother. Sometimes the Apache people have a ceremony to let everyone know that the girl is becoming an adult and is ready to do the jobs that other women in the community do. This ceremony is very beautiful and old. All of the people are very happy when they have it because it brings good luck to everyone who comes. It also helps the girl to be healthy and live a long time. This ceremony is usually held in the summer so that the girls will be home from school. Not every Apache girl has this kind of ceremony today because it is very expensive and not everyone can afford it. The costume is very beautiful with lots of fringes and beadwork. Food is given to everyone who comes and to all the people who help.

At night during this ceremony there is a mountain spirit dance in which dancers wear masks and large headdresses. They dance to drive away any evil powers and bring good luck to all the people. The "Gans," or mountain spirits, sometimes dance at other times when they are needed to cure sickness or keep away disease.

Sometimes Apache people remember the old ways with stories. They tell about how certain things in the world came to be and sometimes give lessons on how to behave. You can read some of these stories and maybe you can think of some that you already know. Here is a story about how coyote helped get fire for the people:

_A long time ago there were people living here on earth. Coyotes, birds and other animals were all people. Many of these people didn't have any fire. The martens (long, thin animals that look like mink or weasels) lived in the tops of tall pine trees--they were the only ones who had fire. The people living below them got together to figure out how to get fire. They decided to play a game and invited everyone to come. They called the martens to come down and bring some fire because they were going to play "hide the ball". They came down and brought fire with them, but they stood in a circle around the fire so no one could run off with it. None of the people who didn't have fire were in the middle of the circle._
Coyote said he would get the fire and run with it. Everyone was playing and the people who had fire were winning. They began to dance. Coyote made a torch by tying bark under his tail. He went up to those who were dancing and said he was going to join them. They were dancing and having a good time. It was nearly daylight. Coyote danced in near the fire, bending and turning, until he switched his tail into the fire, assuring them that it wouldn't burn.

As daylight broke, coyote stuck his tail in the fire again and it caught fire. "Your tail is burning," they called to him. He jumped over the four lines of dancers who were in circles around the fire and ran off. The people who were stingy with fire ran after him. Coyote became winded and could hardly run. The People caught him, but he passed the fire on to Night Hawk, who kept on flying and jumping with it. Soon he was nearly exhausted and he gave it to Roadrunner. Roadrunner kept on for a long time, but the people chased him and almost caught him. He gave the fire to Buzzard. Buzzard was almost worn out when the people caught up with him and they pulled all of the hair out of his head. But Buzzard had already passed the fire on to Hummingbird. So when the people looked up, they saw the smoke of a fire rising in the distance from the top of a mountain. It was Hummingbird who had set the fire. There was a fire too on the top of another mountain which stood far away on the opposite side. A little way from that there was a fire on another mountain. Everywhere fires were burning. It was Hummingbird who had accomplished this. Those who had owned fire turned back saying it was now impossible to recover their fire. Everyone who had been without fire now had it. The people all thanked Coyote for his trick to get fire for them.

Now that you have read a story and some other things about Apache people, perhaps you will understand them a little better. Remember that the things you see in the movies about Apaches are not always true. Apache people see these movies too. What do you suppose the Apache people think about Hollywood films?

There are many Apaches living in Arizona today. A lot of their land has forests, lakes and meadows. Many people go there for vacation. Perhaps sometime you might get a chance to visit Apache lands and towns and talk with the people.

Adapted with permission from the Arizona State Museum (Apache curriculum);
Story credit: Myths and Tales from the San Carlos Apache, Pliny Earle Goddard, American Museum of Natural History, NY.
THE PEOPLE CALLED APACHE

1. What part of North America did the Apaches come from before arriving in Arizona?

2. When did they come to Arizona?

3. What route did they take?

4. What happened to them when they got to Arizona?

5. What did the Apaches call themselves? What does it mean?

6. Who was living in Arizona when the Apaches arrived? How were these people living?

7. What is a pueblo?

8. How did the Apaches survive during the spring and the summer? How about the fall and winter?

9. The women made large colorful baskets to store their food. What materials were used to make the baskets? How did they make the baskets red? Black?

10. What are the advantages of using baskets as compared to pottery?

11. Describe an Apache cooking pot.

12. How did the Apaches care for their babies?

DESCRIPTION: THROUGH PARTICIPATION IN ONE OR MORE NATURE ACTIVITIES SIMILAR TO THOSE THE APACHES MIGHT HAVE DONE WHILE GROWING UP, STUDENTS WILL LEARN ABOUT THE APACHES' RELATIONSHIP TO THEIR NATURAL ENVIRONMENT.

AN APACHE WAY OF LEARNING

BACKGROUND INFORMATION

The Apaches' relationship with their environment was intimate. As nomadic hunters and gatherers, they relied on nature for their food, clothing and shelter. An intimate knowledge of his environment, therefore, was essential. From a very young age, Apache boys and girls started learning the different plants and animals and their uses as they worked alongside their mothers gathering and preparing food and doing daily camp chores. At about age seven or eight the boys were separated from the girls to learn different things.

The girls continued to work with and learn from their mothers and other women. The identification and uses of plants were particularly important in order to survive. Edible versus non-edible plants needed to be distinguished and they had to learn to prepare each plant for consumption and storage. Basketweaving required that they become versed in the different reeds and grasses, as well as plants used for dyes and paints. Plants were of utmost importance for medicinal uses. Many young women would go on to become herbalists and healers.

Boys, on the other hand, started learning how to hunt and become warriors at age eight. Their training was based on survival in nature. They were required to identify plants, learn the habits and characteristics of animals, and study the cycles of nature. Often they were required to observe nature or stalk animals for hours. Becoming a warrior also meant that they needed to become masters of hiding and escape, for which an intimate knowledge of the local geography was needed - so much so that they learned the location and names for specific trees, rocks, caves and geographical landscapes.
The following environmental education activities emphasize and encourage intimacy with nature. They are intended to give students an adventure similar to what a young Apache growing up in the 1800s may have experienced. They are not historical Apache activities. However, similar activities may have been used.

**ACTIVITY**

- Using the background information, discuss the Apache lifestyle and the importance of developing an intimate relationship with nature. Explain that the students will have the opportunity to develop the same skills that the Apaches did when they were growing up.

- Do one or more of the following activities with your students.

**MAGIC SPOT**

*Setting:* Magic Spot can be done just about anywhere there is nature. A lawn would work fine, asking students to explore the surrounding grass. If you have a large class with limited space, send only a few students at a time, extending the activity over time.)

- Take your students out to a natural area. It may be a nearby park or forest, or it might be on the school grounds. Select and assign a place where each student can sit and observe nature, far enough away from other students so that each can remain alone and quiet. Have students sit for at least five minutes, observing the area. After a specific period of time, call all the students together. Have them draw a picture or write a poem about their magic spot. Back in the classroom, discuss and share individual experiences.

**STILL HUNTING**

*Setting:* A natural area (similar to, or the same as, Magic Spot) where each student can sit alone.

If you happen to be in or near an area where you can observe animals, expand on the Magic Spot activity by asking students to try to get as close to an animal as possible (squirrel, rabbit, etc.) without it running away. Domestic animals could also be used, such as dogs or cats. As a homework assignment, ask students to observe their pets' habits and characteristics.
**SOLO WALKING**

Setting: A natural area where students can walk alone for a short period of time. A dirt path or road with a bend in it works well. Two adults are needed with a larger group. (Consider doing this activity with smaller groups.)

- Take your students to a natural area and have them line up single file. At a designated point of your choice, stop the group and send the other adult to a second point about 1/4 or more miles up the trail or road to wait for the students.

- **Adult # 1:** Explain to your students that they will be walking alone for a short period of time and try to eliminate all fear, assuring them that the trail is clear and that the other adult is waiting for them. The students should walk as quietly as possible while observing the environment around them.

- **Adult # 2:** At the designated stopping place, try to sit close to the path or trail, partially hidden so that students could walk by without seeing you. As students get close to you, use a voiced call such as that of an owl to get their attention. Ask them to sit next to you quietly or in silence until the next student arrives. Repeat until all of the students are quietly sitting together. Adult # 1 will be the last person to join the group.

- Discuss and share experiences.
SOUNDS AND COLORS

Setting: A place where you and your students can sit quietly, free from artificial sounds.

- Either individually or as a group, sit quietly in a place where natural sounds can be heard, as free from artificial sounds as possible. Ask students to close their eyes and listen for natural sounds, counting each new sound on their fingers. How many different sounds were heard?

- Repeat this process with eyes open (mouths shut) and count colors. How many true colors can they find? How many shades of green? Blue?

MAPPING

(Setting: Any natural area)

- Assign each student, or group of students, to study and map a specific area. Have them locate and name all key features within their designated area. Can they memorize the landmarks?

- When all maps are completed, experiment by having an individual or a group direct another to a specific spot within their assigned area.

Enhancements

* The aforementioned activities are found in a variety of published teacher’s guides, just a few of the myriad games and activities dealing with learning about, observing and appreciating nature. The references listed here are just some of the many excellent guides available.

RESOURCES AND REFERENCES

DESCRIPTION: THROUGH DISCUSSION AND PARTICIPATION IN A GAME COMPARING APACHE AND SPANISH WARFARE STRATEGIES, STUDENTS WILL UNDERSTAND HOW THE APACHES WERE ABLE TO SUCCESSFULLY COMBAT THE SPANISH SOLDIERS.

ADAPTING TO YOUR ENVIRONMENT

BACKGROUND INFORMATION

Becoming an Apache Warrior

The training for an Apache boy to become a warrior was long and difficult. An Apache boy spent his first seven or eight years with other children, both boys and girls, helping his mother. It was during this time that he learned moral conduct, hard work and respect for the work of his mother and other women in the tribe.

When a boy turned eight or nine, he was no longer allowed to play with the girls. He began to spend more time with his father and other male tribal members. Boys learned how to use the bow and arrow and to hunt small animals. Their games became more competitive and often rougher. During these games, such as wrestling and ambush games, they learned about and tested the ways of the warrior. One such game was to raid a wasp’s nest. The boys would plan their strategy and attack an active nest, often with a parent or relative observing. Adults would not intervene, letting them learn the hard way, often with multiple stings. Praise was given if they were successful.

Each morning, summer and winter, started with a cold bath, sometimes in an ice-covered stream. They believed that the cold would make the heart strong and help them with the shock of fear. This belief also led to rolling in the snow or putting it under their armpits until it melted.
Running was a daily activity that encouraged stamina. Apache boys were often required to run with their mouths full of water or to carry a stone in their hand. The distance they had to run increased with age and ability.

Boys were also required to undergo mental training, memorizing the names of plants and animals, the location of rocks, trees, holes and other features. Patience and self-control were learned by spending hours stalking and getting close to deer.

When a boy felt ready, usually when sixteen years of age, he could volunteer to become a dikome or apprentice. Taking a new name, he joined a raiding party. Although the danger to which he was exposed was limited, he could acquire the experience that would let him successfully participate in the hazards of war.

His first lesson was to be instructed in conduct. It was believed that if a boy proved to be unreliable, immoral or disobedient, he would remain that way throughout his life. Therefore the novice had to be particularly careful during his apprenticeship.

Strict rules were enforced on the novice. He could never turn around quickly to look behind himself. He must glance over his shoulder first. If he didn’t, bad luck would come to the party. He was not allowed to eat warm food. If the food needed to be cooked, then he must wait for it to get cold before eating. He was cautioned not to overeat, and was forbidden from eating the best meat for fear that he would become a glutton. He had to be very discreet and should not laugh at anyone, no matter how funny the situation. He was not to talk with any warrior except in response to a question, or when told to speak. He must stay awake until he was told to lie down, for to fall asleep before the others would show contempt and cause all other members to be drowsy. Above all, an apprentice needed to show courage, bear all hardships and do what he was told. All without complaining!

**Life as a Spanish Soldier**

In contrast to the Apache’s early training,
A young man could become a soldier through several means. If he had the right connections through family or friends, he might become a *cadete*, which was like an apprentice. He then lived with the commanding officer’s family and received personal training from the commander. If a young man or his family had money, allowing him to show up at the *presidio* with all the required equipment and livestock, he would probably be accepted as a soldier. Young men without money first joined the militia as a volunteer to get experience, while continuing to save his money by working on a ranch or at some other employment until he had enough money to buy the horses and equipment he needed.

Every presidial soldier was required by Spanish law to have and use the following:

- 1 broad sword (1 lb.)
- 1 lance with a metal head, 13½ inches long and 1½ inches wide (1 lb.)
- 1 cartridge box with belt and bandolier (1/2 lb.)
- 1 shield, composed of three layers of bullhide, 20 inches high by 40 inches across (5 - 10 lbs.)
- 1 *escopeta*, or musket (8 lbs.)
- 2 pistols, no more than 10 inches long (2 lbs. total)
- 1 set of *armas*, basically a tanned cowhide that was carried over the lap to protect the legs of the rider and shoulders of the horse from cactus, etc. (10 lbs.)
- 1 set of *botas*, which protected the legs from the knees down (1 lbs.)
- Boots and spurs (5 lbs.)
- 1 *vaquero* saddle with wooden stirrups and *mochila* (10-15 lbs.)
- Saddle blanket (3 lbs.)
- Saddle bags (2 lbs.)
- Three pounds of gunpowder (although they probably carried no more than a pound of it with them on a given campaign)
- Six horses, one colt, and one mule

Inspections were once a month. Each soldier was expected to keep his equipment clean and repaired. Each soldier was required to keep one horse tethered, saddled, fed and watered day and night to be ready for instant action in case of surprise Apache attacks.
**ACTIVITY**

**Part I: Discussion**
- Discuss the Apaches’ lifestyle and how they adapted to their natural environment. Using the **Background Information**, discuss with the students what it was like to grow up to be an Apache warrior. Continue the discussion based on the Spanish military lifestyle. Contrast the two styles. If you were to stage a fight between the two groups, both wearing their traditional clothing, which group do the student's believe might win? Why?

**Part II: Training**
- As a demonstration of part of a young Apache's training, take your students outside and have each of them take a mouthful of water without swallowing it. Next have them run a specified distance and back, all the while retaining the water in their mouth. Discuss the results. In contrast, march in drill formation to demonstrate Spanish training.

**Part III: The Apache Advantage**
- Divide the class into two teams, one to represent the Apaches and the other the Spanish. The Apaches usually traveled light and often wore only a breechcloth, carrying little. The Apache team participants, therefore, may run the race in their regular or gym clothes. The Spanish soldiers, on the other hand, had to wear a heavy protective leather vest and a uniform. Hence, as a handicap, Spanish team participants, need to race wearing heavy daypacks.

- Conduct a relay race, Apaches vs. Spanish. Who won? Which group was better adapted to running? Why?
Part VI: The Spanish Advantage

Redo the race, adding the element of weaponry. Select half of the the Spanish team members and ask them to stand along the track where the students will race. Give each of this group a soft pillows, ball, etc. Explain that these objects will represent weapons and that they have one chance to throw it at the Apache runners during the race. Any runner they hit, Apache or Spanish, are out of the race.

What was the result of the second race? Were the results much different? Why? Who had the advantage?

Part V: Summary Discussion

Discuss: In what ways were each of the two groups successful at warfare? Which technique was best and why? If you were alive at the time of Father Kino would you rather be an Apache or a Spanish Soldier? Why? Do you think either group helped or hurt the environment in which they lived? How? Did one group have more impact on the environment? Which one? Why?

(The Apaches' ability to travel lightly, physical stamina and use of gorilla warfare tactics gave them a distinct advantage over their enemies. So much so that they were able to defeat or elude conquest by opponent tribes, the Spanish and later the Anglo-Americans. In the Santa Cruz Valley, the Apache's success resulted in Tubac and the surrounding area being abandoned at least three times. Needless to say, the population always remained fairly small. Consequently, the overall impact on the environment was also low, and the river and surrounding areas remained relatively untouched until Geronimo's surrender in 1886. What might have happened to the environment if the Apaches had not been there?)
Enhancements

- In addition to the relay race, time students individually as they race, carrying the heavy daypack as compared with hauling nothing.
- Study about Geronimo or Cochise and the Apache conflict. There is a wealth of books and documentary films about this (see Resources and References). Be cautious of Hollywood tall tales!
Unit VII
The Mexican Connection

Mexico: A Nation is Born ............ page VII - 1
OVERVIEW: Students will read and discuss a short essay entitled "A Brief History of Mexico," define "Mexican American," and participate in a game that portrays various aspects of the Mexican-American culture.

The Spanish - Mexican Contribution ... page VII - 5
OVERVIEW: In this activity students will take a trip to the supermarket (or shop by advertisements) to discover the vast influence the Mexican Americans have had on our diet, and to trace the origin of certain foods.

Fiesta ....................... page VII - 9
OVERVIEW: Through the creation of a fiesta, students gain understanding of Mexican-American culture. Fiesta activities include celebration, history, art, music and food.
DESCRIPTION: STUDENTS WILL READ AND DISCUSS A SHORT ESSAY ENTITLED “A BRIEF HISTORY OF MEXICO.” DEFINE “MEXICAN-AMERICAN,” AND PARTICIPATE IN A GAME THAT PORTRAYS VARIOUS ASPECTS OF THE MEXICAN-AMERICAN CULTURE.

Mexico: A Nation is Born

ACTIVITY

Part I - Mexico
- Read “A Brief History of Mexico” (Master Page VII - 3) with the class. Follow up with a subjective discussion, encouraging students to express their opinions and experiences. Use the following questions as a guideline:

- What is a Mexican? How did they get their name?
- What do you think about the Aztecs? Would you have liked to be an Aztec? How about one of their enemies?
- Do you think that Cortes did a good thing when he conquered the Aztecs? If you were in Cortes’ shoes, what would you have done?
- What is a mestizo? Do you know any mestizo people?
- Why did the people get mad at Spain? Were they right to fight them?
- What happened after the War of Independence? Did the people do well after that?

Part II - The Mexican-Americans
- Discuss: What is a Mexican-American? Are any of the students Mexican-American, or do they know any?
- List on the blackboard the following categories: Food, Dance, Music, Slang Language, Famous People and Other.
- Brainstorm, writing ideas on the board: What kind of things are distinctly Mexican-American? (Make sure there are as many items as students.)

A few examples:

**Food:** enchiladas, tacos, burritos, nachos, tostadas, salsa and chips

**Dance:** quebradita, cumbias (salsa), corridos, Tex-Mex

**Music:** Norteño (conjunto), Tex-Mex

**Slang Language:** *A toda madre*- great, *chicano*- a Mexican-American; *lonchar*- to lunch; *Asi na-asi* (like this); *Chula / chulo*- cutie; *vato / vata*- guy / gal

**Famous People:** Freddy Fender, Jose Jose, Jimmy Smites, Paul Rodriguez, Linda Ronstadt, Cheech Marin.

**Other:** lowriders, fiestas, maquiladora

- Assign each student one of the listed items. Ask them to write one or more sentences describing or defining it, using index cards. Place all the cards (definition cards) into a hat or other container from which to draw (as if in a contest).

- Play a variation of "Jeopardy." Divide the class into two to four teams. Starting with team one, have one of the students select one of the definition cards and read it out loud. His or her team then has five to ten seconds to answer in "Jeopardy" format, "What is...?" If after the allotted time period they are unable to answer, the other teams may do so. (Correct answers are worth 5 points). Repeat this process in rotation, allowing a different team and a different student to select and attempt to answer a definition card.

**Enhancements**

- Use books mentioned in Resources to study the culture and history of Mexico in detail.
- Photocopy pages from *The Story of Mexico*, to augment and emphasize Mexico's history.

**RESOURCES AND REFERENCES**

- *California's Hispanic Roots For Kids*, Barbara Linse with George Kuska, Art's Publications, 80 Piedmont Court, Larkspur, CA 94939, (415) 924-2633;
A BRIEF HISTORY OF MEXICO

Before the arrival of Columbus in 1492, the people of Mexico came from hundreds of different kinds of Indian tribes. One of the biggest tribes, the Aztecs, however, were a warring people and conquered many of their neighbors. By the 1500s they were the most powerful people in the central part of the country. The Aztecs, who called themselves “Mexica,” created a rich and powerful empire. They built pyramids, aqueducts, huge homes, parks and even zoos. They were artists, astronomers, engineers and architects. Yet many Indian peoples of Mexico hated and feared the Aztecs. The Aztecs believed that to keep the sun moving across the sky, they had to offer their Gods something that moved. They chose the beating heart and used the people from conquered tribes for their sacrifice. Human sacrifice became a regular ritual, removing the heart while the victims were still alive!

In 1519 the Spanish explorer Cortes arrived in Mexico. He was known as reckless and generous, and made friends with the Aztec’s enemies. A strong Catholic, Cortes soon conquered the Aztecs, did away with human sacrifice and replaced their idols with the Christian cross.

After Cortes’ arrival in 1521, Mexico and other Central American countries were ruled by Spain. Many Europeans and Indians married, and their children became known as “mestizos”. The Spanish and mestizo therefore, were the first European people to settle in the area known as the Pimeria Alta, then a part of Mexico.

The Spanish continued to rule Mexico for three centuries during which the king was supreme. He had viceroys (governors) to carry out his laws, and chosen officials watched over the church and controled trade routes. At first, the people were excited and loyal to the Spanish King, but the Spanish never taught the Mexican and Central Americans how to govern themselves. The people felt that they were treated unfairly and that Spain had taken away all their power. They wanted to be free from the king and his officials. People disagreed about the way the government was run, and soon people of different regions began to fight with each other and with Spain.

In the 19th century, most Mexican and Central American countries revolted and separated from Spain. On September 16, 1810, Father Miguel Hidalgo, Jose Maria Morelos and others cried out for freedom and started a revolt against Spain. After ten years they got their independence in 1821, but the War of Independence continued into the late 1820’s. Spain lost her control and Mexico, a new nation was born.

After the War of Independence, Mexico had a number of rulers, governments and revolts. Agustin de Iturbide declared himself Emperor of Mexico in 1824 only to be replaced within the year by President Guadalupe Victoria. Although Victoria tried, Mexico’s problems were many and his vice president led a revolt three years later.
Gomez Pedraza won the presidency but, like Victoria, only lasted a few years until he was overthrown and replaced by General Santa Anna and his rebels.

Santa Anna governed for thirty years, sometime, ruling as president and other times with puppet-like politicians to do his work. Santa Anna, however, was not able to control the country and the people revolted again. With victory in 1857 they elected Benito Juarez, a full-blooded Indian to be their President. Political problems continued under Benito Juarez until powerful people from Britain, France and Spain stepped in to start the War of Reform in 1861. Even though the Mexicans won an important battle on May 5, 1862 (celebrated as Cinco de Mayo), the foreigners finally won and Maximilian from France became Emperor, only to be captured and executed in 1867. Juarez once again took power until his death and was eventually replaced by General Porfirio Diaz who ruled until 1909. But Diaz’ government did not represent the poor peasants and in 1911 they rebelled again.

The Mexican Revolution from 1911-1917, attempted to put the peasants in power and brought the first constitution to guarantee the rights of women, workers, Indians and other groups in 1917. The revolution, (celebrated as Diciseis de Septiembre), had many heros including Francisco Madero, Venustiano Carranza, Alvaro Obregon, Emiliano Zapata, and the most colorful of them all, Pancho Villa. The names of these heros are commonly seen in Mexican city streets and parks.

Since the Mexican Revolution, Mexico continues to struggle for a government that will give them a better way of life. But like the past, problems are many and progress is slow. But more and more people are educated now and the common people have more of a voice. They are making the changes needed, making Mexico the proud and colorful nation that it is today.
DESCRIPTION: IN THIS ACTIVITY STUDENTS WILL TAKE A TRIP TO THE SUPERMARKET (OR SHOP BY ADVERTISEMENTS) TO DISCOVER THE VAST INFLUENCE THE MEXICAN AMERICANS HAVE HAD ON OUR DIET, AND TO TRACE THE ORIGIN OF CERTAIN FOODS.

**THE SPANISH - MEXICAN CONTRIBUTION**

**BACKGROUND INFORMATION**

Mexicans have greatly contributed to our lives - culturally through fiestas, clothing styles, decorations and architecture; and environmentally through foods, agriculture, and ranching. Starting with the arrival of Cortes in 1504, the Spanish and their successors made incredible contributions to the new world. One significant contribution was that of ranching. Can you imagine America without cowboys? Starting with the conquistadors, the Spanish brought horses, saddles and ropes. Not long after, the missionaries and other immigrants introduced cattle, wheat, and many other foods.

The source of many traditional American foods originated from Spanish imports. Not in the sense that the recipes are Spanish, but for the ingredients. Take flour tortillas for example: without the Spanish introduction of wheat into this area we might never have enjoyed burritos or chimichangas. And how about chips and salsa?

Keep in mind that imported foods eventually used in American recipes were not exclusive to the United States, but were imported on local levels. The English or the Dutch may have been the first to import these foods to other areas of the country.

A trip to the local supermarket will demonstrate just how immense the Spanish and Mexican contribution is. The following chart contains only a partial list of items that can be found:

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Subjects: Social Studies, Geography, Nutrition.

Materials: Food advertisements.

Preparation: Collect grocery advertisements.

Time: One session.

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Encounters, Unit VII, The Mexican Connection
### Mexican Cuisine

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ORIGIN</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>Bread</td>
<td>Wheat</td>
</tr>
<tr>
<td>Pork Chops</td>
<td>Pig</td>
</tr>
<tr>
<td>Olives</td>
<td>Olive tree</td>
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<tr>
<td>Tortillas</td>
<td>Wheat</td>
</tr>
<tr>
<td>Queso</td>
<td>Milk - cows</td>
</tr>
<tr>
<td>Cilantro</td>
<td>Plant</td>
</tr>
<tr>
<td>Corn</td>
<td>Plant</td>
</tr>
<tr>
<td>Chicken</td>
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</tr>
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<tr>
<td>Onions</td>
<td>Root Crop</td>
</tr>
<tr>
<td>Rice</td>
<td>Plant</td>
</tr>
</tbody>
</table>

**ACTIVITY**

**Part I**

**Discussion:** Before, during or after lunch, explore and discuss the different foods the students are eating. Where do these foods come from? Can they trace the foods' natural origins? *(milk, cheese and beef comes from a cow, and bread and cookies come from wheat)*

How about the foods' cultural origins? *(cows, sheep, wheat from Spain, tortilla chips from Mexico, sugar from the Indies)* Are there any foods that come from Mexico or are Mexican American? Continue the discussion to include dinner and other items.
- Assignment: As a homework assignment, ask each student to take a trip to the supermarket (or alternatively do their shopping from advertisements) and write down at least five foods (not in the Mexican food section) that are Mexican American.

Part II
- Using grocery store or coupon advertisements, have the students augment their list from their assignment in Part I.
- Using the students’ lists, ask them to write down the natural origins (bread from wheat, etc.) and if known, the cultural origins (Spain, specific state of Mexico, etc.)
- Discuss and brainstorm the students’ findings.

**Enhancements**
- Expand the activity to include local plants. Which plants are imported? Which are native?
- Discuss specifically native plants and resources. Trace their Indian and / or Spanish use patterns.
- Do the “Mission Edibles” activity, located in the Encounters Box, blue section.
- Further explore the origins and extent of ranching.
- Compare and Contrast: Monetary systems; natural resources shared across the border, such as water, mountains, and cattle; sports; education; religion; other.

**RESOURCES AND REFERENCES**

Subjects:
Social Studies, Art, and Music.

Materials:
Recipe ingredients, yarn and craft sticks
(Optional craft items for decorating: tissue paper, wire, pots or balloons, eggshells, newspaper, light bulbs, and confetti), lyrics to “Las Mañanitas,” hot plate or kitchen.

Preparation:
Gather materials; to create a Mexican atmosphere in the classroom, such as paper flowers, crepe paper, and banderolas (optional).

Time:
One to two sessions.

Vocabulary:
fiesta, quinceanera, Dieciseis de Septiembre, Cinco de Mayo, dicho, banderolas

Description: Through the creation of a fiesta, students will gain understanding of Mexican-American culture. Fiesta activities include celebration, history, music and food.

Fiesta

Background Information

Quinceanera
There are typically two different types of parties to celebrate a girl’s 15th birthday. Both are formal and often costly affairs with a champagne toast, a large tower cake (as in a wedding), a live band, and dinner.

One is similar to what is known as a debutante party, in which any number of 15 year old girls, together with their escorts (usually their fathers) gather together at a ball. They wear beautiful long white gowns. There is a ceremony in which each girl is announced individually, given a single rose, and escorted to the dance floor for their first formal dance. Family and friends are involved in the occasion.

The second, called a quinceanera, is quite similar, except that the event is dedicated to only one girl. The family throws their own ball-type party, and again all the girls wear a long formal gown. In this party, the girl chooses a male escort, and has as many damas (maidens) and chambelanes (male escorts) for the damas as she wishes. She is given a formal Catholic Mass, which is attended by family and friends. After Mass, she then attends a party given in her honor. As in a wedding, she waits for all guests to be seated and only enters after all the other members of her quinceanera party have been formally introduced to the guests. The quinceanera (this is what the girl is called throughout the occasion), dances first with her escort, then with her father, and finally with her godfather. The quinceanera has the choice of either opening her gifts at the party or in privacy. She is then considered a woman.
Dieciseis de Septiembre

Independence Day in Mexico is September 16th (dieciseis), although it is also celebrated the evening of September 15th. It celebrates Father Miguel Hidalgo’s “Grito de Dolores” (cry for freedom from Spain) late on the night of September 15th, 1810 from the village of Dolores, and the beginning of the long struggle against Spain begun by Hidalgo’s small army the next morning.

Celebrations begin on the night of the 15th with the ringing of churchbells and Hidalgo’s cry, “Viva Mexico! Viva la Virgen de Guadalupe!” Celebrations continue throughout the night and the following day, including receptions, music, dances, banquets, parades, cockfights, bullfights, horse races, baseball games, and fireworks.

Cinco de Mayo

Cinco de Mayo (Fifth of May) is celebrated in honor of the victory of Mexico’s small army over French Emperor Napoleon III’s elite French troops on May 5, 1862 at the city of Puebla. Although the French remained in power until 1867, Cinco de Mayo became a symbol of Mexico’s victory over European imperialism. Celebrations for this holiday are similar to those for Dieciseis de Septiembre, including fiestas, dances, and fireworks.

ACTIVITY

- Hold a Fiesta! Choose a birthday party or one of the events listed in the Background Information for a theme and/or excuse. If possible, spend one session decorating the room with paper flowers, banderolas, piñatas, crepe paper or other materials in preparation for the fiesta.

- During your fiesta, use one or more of the following activities to give students a firsthand experience of the Mexican-American culture.

Music

One of the all-time classic songs is Las Mañanitas, the Mexican birthday song (Master Page VII - 14). Traditionally the song is sung to the birthday person as a wake up call in the early morning. Try singing it with your class, take it to other classes and/or make it part of your birthday celebrations.
**Dichos y Cuentos**

Like all cultures, language reflects values and cultures. *Dichos* (sayings) and *cuentos* (stories) are commonly used among Mexican-Americans. A fiesta might end around a fire with the grandparents chatting and sharing tales.

**A story:**

**The Chicken Dinner**

It was a wet and muggy day and many travelers were looking for a place where they might stay the night. One such traveler began talking with a farmer and discussing the weather. Seeing that it would rain, the farmer took pity on the traveler, and even though he already had two guests, he invited him to dinner.

The traveler entered the kitchen just as the farmer's wife was setting the table. "Since you are my last guest," commented the farmer to the newcomer, "you may have the honors of serving the meal."

The young traveler looked at the feast and couldn't remember when he last saw such a meal. The chicken was baked just right with gravy, potatoes and a bowl full of fresh vegetables. He took out the carving knife and set to work, dividing the chicken in the following manner.

"The head of this bird should go, of course, to the head of the family" and he placed the head of the chicken on the farmer's plate.

"The neck of the fine animal then goes to the one who supports the head of the family" and he carefully placed the neck on the farmer's wife's plate.

Looking at the daughter he said, "And for this lovely maiden who is now almost an adult, and her brother who must start his own farm and family soon because both are to fly away, they shall receive the wings."

"As for my fellow travelers," he went on, "I notice that the one on my left is rubbing his leg and needs a little support for his journey." A leg was put on the traveler's plate. "And for the one on my right, because he has been traveling so far and long, he should have the other." The other leg was dished out.

"Praise be to God," he then stated, "That leaves what little bit is left for myself. . . ."

And with a big smile on his face he placed the rest of the fat, plump, juicy chicken on his own plate!

**Dichos:**

- *Hay que aprender a perder antes de saber jugar.*
  One must learn how to lose before learning how to play.

- *Una onza de alegría vale más que una onza de oro.*
  An ounce of gladness is worth more than an ounce of gold.

- *Todo el rato que está enojado, pierde de estar contento.*
  All time spent angry is time lost being happy.

- *El sol es la cobija del pobre.*
  The sun is the blanket of the poor.
Crafts

God's eyes can be easily made with only yarn and popsicle or craft sticks.

1) Make a cross with two sticks. Tie the center together with one end of the yarn.

2) Moving constantly in the same direction, wrap the yarn once around the first stick, then to the second, the third, etc.

3) Continue wrapping the yarn sequentially around each stick, extending the yarn up the length of the sticks until you form a diamond-shaped or square pattern.

Note: To make the God's Eyes both economical and colorful, have students use yarn scraps, tying the different scraps together.

Drink

Traditionally, Champurro (Mexican Hot Chocolate) is made of chocolate blended with sugar, cinnamon, and occasionally ground almonds. Mexicans make it frothy by beating it with a molinillo (a special carved, wooden beater). You may get similar results using a portable mixer.

Have children wash their hands and the working surface before handling the food items. Gather together the following ingredients and supplies:

Champurro

Utensils:
large sauce pan
mixing spoon
measuring cups
measuring spoons
hot pads
portable mixer

Ingredients:
1/2 cup sugar
3 oz. unsweetened chocolate
1 tsp. cinnamon
6 cups milk
2 beaten eggs
2 tsp. vanilla

1. In large saucepan, cook and stir the sugar, chocolate, cinnamon, and 1 cup of the milk over medium heat until the chocolate melts. Then stir in the remaining milk.

2. Mix one cup of the hot mixture with the beaten eggs; stirring constantly. Quickly, stir the egg mixture into the saucepan. Heat for 2 minutes over low heat.

3. Use hot pads to remove pan from heat. Add vanilla, then beat the hot mixture with a portable mixer until the chocolate is frothy.

Serve the chocolate hot in mugs, topped with whipped cream and sticks of cinnamon.
Food

What would a fiesta be without food? Turn your classroom into a kitchen and make a traditional Mexican-American snack:

Salsa and Chips

Ingredients: Tomatoes (diced)
Cilantro (finely chopped)
Onions (finely chopped)
Garlic (minced)
Green chilis (finely minced)

Mix ingredients together, bring out a bag of tortilla chips and watch it disappear.

Enhancements

- There are a variety of other crafts that can be easily adapted to the classroom, including piñatas, cascarones, banderolas and maracas. Directions for making banderolas can be found in the Encounters Box, yellow section. See Resources and References (below) for more information.
- Check local recipe books for other treats.
- Contact the Pimeria Alta Historical Society for details and information about special Mexican-American events and information.
- Have your students memorize and recite the dichos. Ask them to create their own!

Resources and References

LAS MANANITAS
MORNING SONG

Estas son las maña-ni-tas que can-ta-bael rey da-
We will sing a morning greeting as King David used to

vid. A las mu-chachas bo-ni-tasse las can-ta-ba a-
do. He would sing it to the ladies and we will sing it to

Sí: Des-pier-ta, mi bien, des-pier-ta, mi-
You: Good Morn-ing, my Love, good Morn-ing, wake

Ra que yar-ma-ne-ció; ya los pa-
Up now and greet the dawn; little birds are singing

Can-tan, la lu-na ya se me-tió.
Gai-ly, the moon is al-re-a-dy gone.

BEST COPY AVAILABLE
Unit VIII
The Americans

**The Weekly Arizonian** ............... page V - 1

OVERVIEW: Students will create their own historical newspaper. In doing so, they will learn about United States history between the Gadsden Purchase in the 1850s and Arizona statehood in 1912.

**Railroads, Cattle, Cotton Fields and the Environment** ............. page V - 5

OVERVIEW: Students will participate in a game that demonstrates how historical events affected the natural environment in the Santa Cruz Valley.

**Owls and Crows** ................. page V - 9

OVERVIEW: Students will demonstrate their knowledge of Arizona history and its effect on the environment while answering questions during a physically active quiz game.
DESCRIPTION: STUDENTS WILL CREATE THEIR OWN HISTORICAL NEWSPAPER. IN DOING SO, THEY WILL LEARN ABOUT UNITED STATES HISTORY BETWEEN THE GADSDEN PURCHASE IN THE 1850s AND ARIZONA STATEHOOD IN 1912.

THE WEEKLY ARIZONIAN

ACTIVITY

- Read aloud and discuss the excerpts from The Weekly Arizonian newspaper on Master Pages VIII - 3 & 4.*

- Divide the class up into work-groups and assign each one of the jobs listed below:
  - Reporters - research and write a short article about one of the historical themes or events described on page VIII - 2. (Encourage them to use comics, political satire, etc. if appropriate.)
  - Editors - once completed, collect articles and edit them.
  - Layout Designers - put all the edited articles together to look like a newspaper.
  - Typesetters (If you have access to computers) - work closely with the layout designers to put the newspaper on the computer to make “camera ready” pages.

  - Set up the class as a newspaper room and have the students role play their various jobs. Make available other historical papers, documents, textbooks, etc. from this time period as research materials.

  - Create a historical newspaper. Use each article as a stepping off place to discuss and explore U.S. and Arizona history, themes and events.

* Excerpts from The Weekly Arizonian on Master Pages VIII - 3 & 4 are original, reflecting a period of time in 1859.

1 THE WEEKLY ARIZONIAN

Subjects:
Social Studies, Reading, Language, Art.

Materials:
Copies of Master Pages VIII - 3 and VIII - 4; historical papers, documents, textbooks, or other information pertaining to the time period between 1850 - 1912.

Preparation:
Gather research materials pertaining to the time period between 1850 - 1912; set up your classroom as a newspaper/print shop.

Time:
Two or more sessions.

1. The Weekly Arizonian newspaper (Orange)
   Tubac (Green)
Historical Themes and Events:

1848 The Treaty of Guadalupe Hildalgo left questions about the Mexican and U.S. boundaries. President Franklin Pierce sent James Gadsden to purchase more land in 1853.

1851 U.S. Army troops and cavalry were sent to protect the settlers. They built forts near towns and mines, and helped to fight the Apaches and other tribes.

1854 Miners came to Arizona to look for gold and riches. Many native tribes resisted the miners because they knew that the their success would bring more people who would steal their land.

1856 Edward Beale, an early explorer, convinced Congress to spend $30,000 to buy 77 camels from North Africa.

1859 Arizona's first newspaper, The Weekly Arizonian was published.

1861 Chiricahua Apaches following Cochise went to war. Life for the settlers became extremely dangerous.

1862 The Civil War caused withdrawal of U.S. troops. Apache raids increased. Arizona was declared part of the confederacy.

1863 Abraham Lincoln separated Arizona from the New Mexico Territory.

1867 The black Buffalo Soldiers earned a reputation as brave Indian fighters.

1870s Governor Safford implemented a state-wide public school system.

1880s The new settlers needed supplies and equipment that was brought by the Butterfield Mail or Southern Pacific Mail.

1880s The wealth brought by the miners and rich cattleman also attracted outlaws. Tucson and Tombstone became centers for the wild west.

1883 The railroad began to replace camels and stagecoaches.

1886 Geronimo surrenders, the land became safe for the settlers. Arizona became a haven for American cowboys.

1912 President Taft declared Arizona a State.

Resources and References


Enhancements

♦ Once completed, print and distribute copies for other classrooms.

♦ Instead of doing this activity to introduce students to the history during this time period, use it to evaluate student's knowledge after studying these events.

♦ As part of the research, include a visit to the local library, Pimeria Alta Historical Society, The Tubac Historical Society, or Tubac Presidio State Historical Park.
GENERAL MIRAMON

This new President to the Mexican Republic is an addition to the list of those who have reached the summit of ambition in early life. Born in 1832, he is now in his 27th year. He first figured conspicuously in the insurrection of Zuloaga last winter. Upon the death of General Osollos, he was placed at the head of the army, signalizing his promotion by a great victory of General Vidaurri, near San Luis Potosi, September 29th. More recently, he has beaten the Liberal Degolado without the gates of Guadalajara, and forced his way into that city.

AN ENTERPRISING SHOWMAN

is exhibiting a company of trained fleas in the cities of the Atlantic States, to crowded houses. Their feats as described in the papers, are truly surprising.

KANSAS CITY GOLD MINES

The reports from the South Platte gold region announce new discoveries of the precious metal, and a large yield. The gold is fine float, or scale gold, intermixed with boulders, coarse gravel, and sand...

PATAGONIA MINING CO;
Col. Douglass Superintendent, are progressing with fine success. They have a deep shaft sunk, and over one hundred tons of ore out of the ground. The smelting works will soon be in operation.

INDIAN DEPREDATIONS

In order that our readers in “the states” may have an idea of the manner in which the people of Arizona are plundered by Indians, we give a few cases that have come to our knowledge within the past few weeks. There are a number of other instances which are omitted for want of names and dates. Most of these depredations were committed by the Pinal and Coyotero bands of Apaches.

On the 13th, took twenty head of cattle out of the corral at Fort Buchanan- followed, and fifteen head recovered. Also, on the same day, took eleven mules from Mr. Yancy, at Tubac, and being pursued lanced three mules.

25th, Attack on Sergeant Berry’s party, at Whetstone Springs, twenty-two miles from Fort Buchanan; sergeants Berry and Kelly killed; also, three mules killed and one carried off. Kelly was a native of Ireland and had been 20 years in the service. Berry was an American, from Weston, Mo., and had served fifteen years. Both had just received an “honorable discharge” and were on their way to “the States.”

On the 20th, all the animals belonging to Tumacacori Mission, three miles from Tubac, taken in broad day. Immediate pursuit by Mr. M’Coy and Captain Sharp, and the animals retaken.

Apaches in Sonora- Some two weeks since a party of two hundred Apache warriors passed Sopori Ranche on their way to Sonora on a plundering expedition. We learn that they extended their ravages further down into Sonora than ever before; and a few days since a part of the same company passed near Arivaca Ranche with seventy or eighty stolen animals.

MARRIED

At Calabasas Rancho, on the 18th February, by J. Ricord, Esq., Notary Public, Mr. - Boyd, to Miss Sarah Sutton, both of Calabasas.

At Tucson, Arizona, on Tuesday, March 1st, 1859, by J. Ricord, Esq., Mr George P. Davis to Miss Ann Maria Ake, all of Sonora Valley.

WANTED

THE SANTA-RITA SILVER MINING COMPANY
An experienced Smelter.
Also, good Barrateros, to work in the Salero Mine.
Apply to W. Wrightson, Tubac.

MILLWRIGHT
An experienced millwright can obtain employment and good wages on application to S. H. LATHROP
DIRECTOR OF MINES,
Sonora Exploring and Mining Co.

SHOOTING AFFRAY
At the Overland Mail station near Fort Yuma, not long since, a shooting affray took place between Edward George, and a man named Buchanan. George was badly wounded and Buchanan killed.
OVERLAND MAIL

TARIFF OF PRICES.
From San Francisco, or from any point on the route between San Francisco and Fort Yuma, to terminus of Pacific Railroad, or Ft. Smith, Ark., $100; From San Francisco to Visalia, $20; From San Francisco to Fort Tejon, $30; From San Francisco to Los Angeles, $40; From San Francisco to Fort Yuma, $70 From Los Angeles to Ft. Yuma, $40; Way fare 10 cents per mile; no charge less than one dollar.

PERRY DAVIS VEGETABLE PAIN KILLER
This well established and successful remedy for the cure of cholera morbus, burns, scalds, cuts, etc., etc., is offered for sale wholesale and retail by J.N. HARRIX & Co., No. 5 College building Cincinnati, Ohio.

MEXICAN HORSE THIEVES
On the 16th ult., five Mexican horse-thieves visited the Spoor Ranche and stole five horses and one mule, belonging to C.C. Dodson and Col. Douglass. The same night a valuable horse was stolen from the Cerro Colorado mine. A party sent in pursuit succeeded in re-taking the horse stolen from Cerro Colorado, and captured two of the thieves; one, named Roques, is notorious as a bold and expert horse thief. Both are in jail at Siroca, a town in Sonora. The horses belonging to Mr. Dodson were also captured, but left at Siroca. Nothing but the most summary measures will put a stop to these depredations by Mexican thieves. If citizens would adopt the plan of shooting, on sight, all strange and suspicious Mexicans found lurking about their premises, it would doubtless have a salutary effect.

CANALS IN CALIFORNIA
Within five years, over 4,405 miles of canals for wadding gold have been constructed in California. The cost of these has been nearly $12,000.

BENEFIT your enemies, that they at last may become your friends

DEATH OF GENERAL

JAMES GADSDEN
The newspapers in the States announce the death of Gen. Gadsden, of South Carolina, who died at his residence in Charleston on the 29th of December, last, aged sixty years. Appointed Minister Plenipotentiary and Envoy Extraordinary of the United States to Mexico, in 1853. General Gadsden's name is chiefly associated with the Treaty executed in 1854, between Mexico and the United States. That instrument is generally known as the "Gadsden Treaty." Under its provisions, the boundary line between the two countries was definitely settled, a Commission was appointed to survey the line, and the 6th and 7th articles of the Treaty of Guadalupe-Hidalgo were abrogated; Mexico granting the free navigation of the Colorado river, and the Gulf of California; also relinquishing her title to the proposed territory of Arizona. The tract of country thus acquired was for a long time known as the "Gadsden Purchase." In consideration of the stipulations agreed upon on the part of Mexico, the United States guaranteed the payment to the Mexican government of the sum of ten millions of dollars. Mr. Gadsden since his retirement from diplomatic life, has taken no active part in national affairs.

A word of kindness is seldom spoken in vain. It is a seed which, even when dropped by chance, springs up a flower.

CROWELL & CRANE
WHOLESALE DRUGGISTS
Corner of Front and Clay Streets
SAN FRANCISCO
DESCRIPTION: STUDENTS WILL PARTICIPATE IN A GAME THAT DEMONSTRATES HOW HISTORICAL EVENTS AFFECTED THE NATURAL ENVIRONMENT IN THE SANTA CRUZ VALLEY.

RAILROADS, CATTLE, COTTONFIELDS AND THE ENVIRONMENT

BACKGROUND INFORMATION

With water flowing year-round, the Santa Cruz River is the life-blood for myriad animals, insects, trees, plants and grasses. Populations of White-tailed and Mule Deer, Javelina, Mountain Lion, Bobcat, jackrabbit, desert cottontail, rock squirrel, valley pocket gopher, opossum, coyote, gray fox, raccoon, badger, spotted, hog-nosed and stripped skunk, porcupine, white-throated woodrat and gray shrew all rely on the river. Native trees such as netleaf hackberry, honey mesquite, Arizona ash, Freemont cottonwood, Nogales walnut, Goode's willow, Mexican elder (elderberry) and catclaw acacia frequent the valley. And hundreds of insects, grasses and plants coexisted in the mesquite-Bosque (mesquite woodland) and riparian environment.

It hasn’t always been so abundant, however. During prehistoric and Spanish settlement history, the natural environment was, for the most part, fairly stable and abundant. In addition to the aforementioned, what is today threatened or endangered were common. This list includes monkey springs pupfish, river otter, jaguar, Mexican (gray) wolf, ferruginous pigmy owl, barking frog, Sanborns long-nosed bat, willow fly-catcher, Gila topminnow, large flowered blue star, Wiggins' milkweed vine, yellow bailed cuckoo and Santa Cruz star leaf.
The environment of the Santa Cruz Valley was not adversely affected until the late 1800s. Prior to this time, populations remained relatively small (at least partially from Apache attacks), and technologies did not have a great impact. With the arrival of emigrating Americans, the industrial revolution and the surrender of Geronimo, the environment took a turn for the worse. In the 1800s cattle operations, railroads and cotton farms took their toll on the environment. Cowboys brought large herds of cattle into the area and ranchers attempted to raise as many animals as possible, without effectively managing the rangeland. The cattle ate and trampled native plant species and, because their numbers were so great, many native plants were unable to reseed. Other introduced “exotic” species competed for space. Wildlife, of course, was for the most part thought of as something to be conquered. Wolves, coyotes, large cats, raptors and other animals were considered threats and were often shot when seen. People sometimes hired hunters to track and kill the predators.

The railroad brought new technologies to the area and with it Arizona citizen’s most likely saw a higher standard of living. Travel and movement of commerce improved and supplies were more readily available. But technology also brought money, wealth and greed. Large companies and land owners often took from the land everything they could, destroying habitat and killing wildlife as they did so.

The technologies also brought inventions that encouraged large-scale cotton farming. Habitat was destroyed and the river was tapped to irrigate huge fields of cotton that depleted the soil.

So it was that the large cattle operations, railroads and cotton farms, negatively impacted the environment along the Santa Cruz. An important concept to emphasis, however, is not as much how this occurred but why. What was the motivation behind the inventions and technologies? Were they essentially good? How does human character come into play here? By exploring these ideas perhaps students will gain understanding and insight into how future generations might better manage our environment.

**ACTIVITY**

- Copy Master Page VIII - 4 and cut-out individual “species cards.” Use all cards and give each student at least one. (In smaller classes give students two or more of the same species.)
- Give each student six (6) beans or other counting object for each card.
- Tell students that you are going to read some statements that describe various historical events. After reading each statement, discuss with the class whether or not the event affected the environment and how. If it did not affect it or helped the environment, do nothing and read the next statement. If it adversely affected the environment, ask each student or “species” to give up one bean which represents a percentage of their population. (about 15% per bean)
- Read the following statements, discuss any effect the event might have had on the environment, and collect beans as appropriate. After each statement, note and discuss any changes in the "species" population. If a student runs out of beans, it signifies that their representative animal ran out of food or habitat and dies (the student must sit down).

- Conclusion: After reading all the events and subsequent loss of certain animal populations, the only remaining animals are hearty survivors such as coyotes, raccoons, deer and javelina. Discuss why these animals survived and others did not. What happened to the other animals? Are any of them extinct? What conclusions can be made about how history affects the wildlife? Are there any events in which the environment shaped history?

---

- Gadsden Purchase
- Big cattle operations come to Arizona
- The Civil War
- Railroads bring new technologies to Arizona
- Congress buys 77 camels from North Africa
- Arizona becomes a territory
- Area is cleared to grow cotton and raise cattle
- The black Buffalo Soldiers earn a reputation as brave Indian fighters
- Geronimo surrenders
- Governor Safford starts a state-wide public school system
- President Taft declares Arizona a State in 1912

---

**Enhancements**

- Study individual species to determine why some animals survive better than others.
- Take a field trip to the Santa Cruz River and its environs. (Call Tumacacori National Historical Park or Tubac Presidio State Historic Park for information.)

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**RESOURCES AND REFERENCES**

<table>
<thead>
<tr>
<th></th>
<th>Mountain Lion</th>
<th>Javelina</th>
<th>Raccoon</th>
<th>Coyote</th>
<th>Pigmy Owl</th>
<th>Javelina</th>
<th>Raccoon</th>
<th>Coyote</th>
<th>Wolf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaguar</td>
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<td>Bear</td>
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<td>Raccoon</td>
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Railroads, Cattle, Cottonfields and the Environment, ENCOUNTERS, Unit VIII, The Americans.
DESCRIPTION: STUDENTS WILL DEMONSTRATE THEIR KNOWLEDGE OF ARIZONA HISTORY AND ITS EFFECT ON THE ENVIRONMENT WHILE ANSWERING QUESTIONS DURING A PHYSICALLY ACTIVE QUIZ GAME.

**OWLS AND CROWS**

**BACKGROUND INFORMATION**

Owls and Crows is a fun way to enforce concepts and evaluate students knowledge. The questions listed on page 11 are examples that pertain to Unit 8. However, any question may be substituted, whether pertaining to this unit or to any other subject you might wish to use such as math, science, etc. Owls and Crows is adapted from *Sharing Nature with Children* by Joseph Cornell.

**ACTIVITY**

- Designate and delineate a playing area where students can run, with three parallel lines approximately 20 - 30 feet apart.

<table>
<thead>
<tr>
<th>Owls Safe Area</th>
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</thead>
<tbody>
<tr>
<td>x x x x x x x x x OWLS x x x x x x x x x</td>
</tr>
<tr>
<td>0 0 0 0 0 0 0 0 0 CROWS 0 0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

| Crows Safe Area |
- Review historical and environmental events that occurred in Arizona during the late 1800s.

- Split the class into two teams (owls and crows) with each team facing each other on either side of the center line. Each players must have one foot within 12 inches of the center line. Explain that the owls are the wise team that always tells the truth whereas the crows can be deceptive and may lie.

- Tell them that you will read various statements which they will have to determine to be either true or false. If the statement is true, the owls (the wise ones) will chase the crows towards the crows safe Area. If an owl touches a crow before getting to the safe zone then that crow must join the owls team for the next statement. If the statement is false, then the crows chase the owls towards the owls safe Area, again dragging any caught Owls back to the crows team.

- Start by demonstrating with an easy statement such as “Today is Christmas” or, “We live in the United States of America”.

- Using the statements listed on Master Page VIII - 11, read one statement per round, each time regrouping and discussing the correct answer. Make each statement progressively harder. Make up your own statements!

**Enhancements**

- Study individual species to determine why some animals survive better than others.


- Take a field trip to the Santa Cruz River and its environs. (Call Tumacacori National Historical Park or Friends of the Santa Cruz River for more information)

**RESOURCES AND REFERENCES**

- James Gadsden was the governor of Arizona in 1848. (F)

- The first newspaper in Arizona was called the Tubac Daily Star. (F)

- Buffalo Soldiers were brave, black soldiers who helped fight the Apache Indians. (T)

- Cochise was a peaceful Apache Indian who helped the American settlers. (F)

- The Santa Cruz River once was so large that it steam powered paddle boats were used for transportation. (F)

- In 1856, the government tried to use camels from North Africa in the Southwest deserts. (T)

- Geronimo was the last Apache to surrender to the United States government. (T)

- Cattlemen always managed the rangelands wisely. (F)

- Railroads brought many new supplies and services to the people out west. (T)

- Tucson and Tombstone were peaceful towns in the late 1800s. (F)

- Many of the native trees and plants were cut down to grow cotton. (T)
A Cultural Scavenger Hunt ........... page IX - 1

OVERVIEW: By comparing and contrasting different customs and cultures found throughout the United States, students will explore what it means to be a North American. The Mexican-American culture in the Santa Cruz River Valley will also be emphasized.

What Do You Think? .................. page IX - 5

OVERVIEW: The environment of the Santa Cruz River Valley is affected by many environmental issues. In this activity, students will learn about some issues, assert their opinions about each, and, working in teams, come up with solutions.

Santa Cruz County - 2050! .......... page IX - 11

OVERVIEW: The future of the Santa Cruz River Valley ultimately rests with our youth. In this activity, students will be members of an agency in the year 2050. They will create an informative display regarding the concerns of their agency for the area.
DESCRIPTION: BY COMPARING AND CONTRASTING DIFFERENT CUSTOMS AND CULTURES FOUND THROUGHOUT THE USA, STUDENTS WILL EXPLORE WHAT IT MEANS TO BE NORTH AMERICAN. THE MEXICAN-AMERICAN CULTURE IN THE SANTA CRUZ RIVER VALLEY WILL ALSO BE EMPHASIZED.

A CULTURAL SCAVENGER HUNT

ACTIVITY

Part I
- Write the following categories on the board, then brainstorm and discuss things which are uniquely North American:
  - Food (hamburgers, hot dogs, . . .)
  - Music (surfing, rap, bluegrass, . . .)
  - Sports (baseball, football, . . .)
  - Holidays and Celebrations (4th of July, Memorial Day)
  - Clothing (cowboy boots, baggy shorts, . . .)
  - Transportation (hot rods, low-riders, etc.)
- Using the magazines, photos, etc., have students cut out pictures and / or headlines that emphasize North American culture.
- Create a collage, individually, in small groups, or as a class.
Part II

- As a homework assignment, ask students to go on the Cultural Scavenger Hunt (Master Page IX - 3).
- Upon completion of the Cultural Scavenger Hunt discuss individual findings, making a list as you go along.
- Write the following categories on the board, then list items found during the scavenger hunt, comparing and contrasting things that are unique to each category.
  
  North American
  Mexican American
  Other

- Discuss: What makes an American an American? How can you tell?

RESOURCES AND REFERENCES


Enhancements

- Expand on the categories in Part Two to include subgroups such as Chinese, African American, Vietnamese, etc.
- Go to or create an activity or event that is uniquely North American.
- Research a uniquely North American activity. From which culture did it evolve? What was the event's history?
## A CULTURAL SCAVENGER HUNT

### HOW MANY OF THESE THINGS CAN YOU FIND? DESCRIBE THEM.

<table>
<thead>
<tr>
<th>Can you find these objects?</th>
<th>Describe the object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Something from nature in your home.</td>
<td></td>
</tr>
<tr>
<td>A shrine or religious symbol.</td>
<td></td>
</tr>
<tr>
<td>Clothing from at least two different cultures.</td>
<td></td>
</tr>
<tr>
<td>Four restaurants (check the phone book).</td>
<td></td>
</tr>
<tr>
<td>Four types of fast food places.</td>
<td></td>
</tr>
<tr>
<td>A billboard or large sign written in Spanish.</td>
<td></td>
</tr>
<tr>
<td>A billboard or large sign written in English.</td>
<td></td>
</tr>
<tr>
<td>Something from a different culture (not American or Mexican).</td>
<td></td>
</tr>
<tr>
<td>A typical North American food.</td>
<td></td>
</tr>
<tr>
<td>A food from a foreign (not North American) culture.</td>
<td></td>
</tr>
</tbody>
</table>

### WHERE DOES IT COME FROM? DRAW A LINE BETWEEN THE FOOD AND THE COUNTRY IT COMES FROM. (HINT: SOME MAY HAVE MORE THAN ONE.)

- Pizza: NORTH AMERICA  
- Chop Suey: CHINA  
- Tacos: MEXICO  
- French Fries: ENGLAND  
- Pita Bread: MIDEASTERN  
- Sauerkraut: GERMANY  
- Steak: FRANCE  
- Enchiladas: MIDEASTERN  
- Spaghetti: ITALY  
- Hamburger: JAPAN  
- Sushi: INDIA  
- English Muffins: ENGLAND  
- Tortillas: MEXICO
What Do You Think?

BACKGROUND INFORMATION

In this activity, students will do some “Interpretation.” This is not interpretation from one language to another, but rather interpretation as the National Park Service knows it -- the dissemination of information to people so that they can easily, and enjoyably, understand it. Interpreters in the National Park Service are well known, except that they go by the name of Park Ranger. They are the ones that escort you on guided walks, give presentations, and sing all those silly songs when you go camping.

Sam Ham, in his book Environmental Interpretation (see resources) defines interpretation as “simply an approach to communication. Most people think of it as the process through which a person translates one language into another, for example Spanish to English or English to Spanish. At its most basic level, that’s exactly what interpretation is, translating. Environmental interpretation involves translating the technical language of a natural science or related field into terms and ideas that people who aren’t scientists can readily understand. And, it involves doing it in a way that’s entertaining and interesting to these people."

Interpreting important issues can have great benefit for the betterment of our society. With a bit of research and planning, just about any issue can be interpreted. The following are issues that students will work with in this activity.

BEST COPY AVAILABLE
Water

Water is perhaps the most important thing in the Santa Cruz River Valley. Without it, animals couldn’t survive, plants wouldn’t grow and people couldn’t live here. Up until the 1880s, there were few people and plenty of water. However, a natural drought coincided with the introduction of big cattle drives, cotton farms and the railroad, causing the water table to drop significantly in the 1880s. The invention of a new water pump in the 1940s also diminished the water table significantly. As the population increased, development also began to take its toll on the water supply. To control flooding, river banks were cemented or diverted, forcing the water that normally replenished the water table out of the area. (You can note this in Tucson where the river is dry except after large rains.)

Today, thanks to the recycled water from the wastewater treatment plant in Rio Rico, the water table is recharged and the Santa Cruz River Valley has almost as much water as it did in Kino’s time. But what happens as more and more people move here? Growth in the Santa Cruz River Valley continues to swell. Numerous development projects are underway or proposed. What will happen if the area becomes as populated as Tucson? Is there enough water? How can we ensure that there will be?

ATVs (All Terrain Vehicles - includes motorcycles, three-wheelers, dune buggys, etc.)

ATVs have been in use for relatively few years. Many people love to drive them along and through the river. It’s a lot of fun to race through the river on an ATV with water splashing everywhere. Not everyone appreciates the ATVs though. Hikers and bird watchers are disturbed by the loud noise. ATV tracks make parts of the scenic river look like a highway. Animals, fish and birds are disturbed by ATVs, which often destroy their homes and habitat. As much fun as they are, ATVs can hurt the natural environment. Along the Juan Bautista de Anza Trail, private property owners have been unable to control ATVs. “No Trespassing” signs and fences are often torn down. Is there a place for ATVs along the river? Are there other areas that could be designated for ATVs? Is there a way to control or minimize ATV use?

Littering

One of the main problems along the river is trash. Picnickers, hikers and other people drop litter. Even more litter is left when trash from Nogales is carried downstream and deposited along the river after a heavy rain. Trash, therefore, is not limited to local people, but includes trash from Ambos Nogales (both sides of the border). Approximately 300,000 people inhabit Nogales, Sonora alone! Cultural standards must also be considered, as the concept of litter control is relatively new to the Mexican people.

195
Pollution

Pollution is a complex problem that involves all of the above issues (water, littering and ATVs, in addition to air pollution.) Perhaps the most serious consideration is health. Recent documentation has claimed that Nogales, Arizona, has one of the highest rates of a rare cancer and the disease lupus in the country. Experts theorize that groundwater or air pollution are the culprits. Poor environmental controls in Nogales, Mexico, have resulted in toxic chemical spills. With approximately 25,000 people in Nogales, Arizona, and 200,000 to 300,000 people in Nogales, Mexico, unchecked automobile and factory discharge, smoke from fireplaces, and dust from unpaved roads increases air pollution. Indiscriminate littering in the Nogales Wash includes toxic household chemicals and other non-biodegradable trash.

Part I: Learning about the Issues

- Using the Background Information as a guide, review each of the four issues (Water, ATVs, Littering and Pollution) so that students understand each issue. As much as possible, try to present each issue without biasing or influencing the students.

- Hand out to each student a copy of "What do you think?,” Master Page IX - 9. Ask students to complete the worksheet.

- Upon completion of the worksheet, once again review and discuss each of the four issues, allowing students to interject their personal opinions. Use the following questions as guidelines:

  - WATER - What will happen to the water table if the Santa Cruz River Valley gets as big as Tucson? Is there enough water for housing, recreation agriculture, and the river?

  - ATVs - Should ATVs be allowed along the Santa Cruz River? If not, is there somewhere else they could go?

  - LITTERING - Is trash bad or dangerous? Why? How can trash be controlled?

  - POLLUTION - In what ways does pollution affect us individually or as a community? Is it a problem that will go away?
Part II: Finding Solutions

- Read aloud the fictional Park Service Memorandum on Master Page IX - 10.

- Divide the class into four groups. Assign the four issues discussed so that each group has a different issue. Ask each group to come up with an interpretive plan for dealing with the assigned issue.

- Ask each group to present or interpret their solution and plan to the class.

**Enhancements**

- Plan a field trip to the Santa Cruz River, the Nogales Wash, or Nogales Wastewater Treatment Project.

- Create and implement an anti-litter program at your school or local neighborhoods.

- Bring in a representative from the Friends of the Santa Cruz River, Anza Trail Coalition or other group associated with the river to speak with your class. (see Resources)
**WHAT DO YOU THINK?**

What do you think about the following issues that affect the Santa Cruz River? Study each of the issues below. In the blank space write down your opinions. Is it a good thing? Should it be managed? How?

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>WHAT DO YOU THINK?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WATER</strong></td>
<td></td>
</tr>
<tr>
<td>Water is perhaps the most important thing in the Santa Cruz River Valley. Without it, animals couldn’t survive, plants wouldn’t grow and people couldn’t live. In the desert, people must manage the water very carefully. Do you think that there is enough water in the Santa Cruz River Valley? Would there be enough if the area had as many people as Tucson?</td>
<td></td>
</tr>
<tr>
<td><strong>ALL TERRAIN VEHICLES (ATVs)</strong></td>
<td></td>
</tr>
<tr>
<td>ATVs are a lot of fun to race through the water, water splashing everywhere, but they hurt the natural environment. Animals and birds are disturbed. Often their homes and habitat are destroyed. As much fun as they are, should they be allowed in and along the river? If not, where should they go? Should they be controlled? How?</td>
<td></td>
</tr>
<tr>
<td><strong>POLLUTION</strong></td>
<td></td>
</tr>
<tr>
<td>All living things require clean water and air. But what happens when people’s septic tanks leak into the underground water supply? Factories and individual people sometimes dump harmful chemicals into the ground and the river, as well as pollute the air. Do you think this is right? Can the pollution be controlled? How?</td>
<td></td>
</tr>
<tr>
<td><strong>ALL TERRAIN VEHICLES (ATVs)</strong></td>
<td></td>
</tr>
<tr>
<td>ATVs are a lot of fun to race through the water, water splashing everywhere, but they hurt the natural environment. Animals and birds are disturbed. Often their homes and habitat are destroyed. As much fun as they are, should they be allowed in and along the river? If not, where should they go? Should they be controlled? How?</td>
<td></td>
</tr>
</tbody>
</table>
August, 22, 2050

MEMORANDUM

To: Interpretive Teams, Santa Cruz River National Riparian Area

From: Superintendent, Santa Cruz River National Riparian Area

Subject: Interpretive Assignment

It is with great pleasure that I write to congratulate and thank you for all the hard work you have done to establish the Santa Cruz River National Riparian Area. The time and dedication put into this project was incredible.

With the new Park established, now is the time for you interpreters to go to work. As you know your job, perhaps the most important in the Park Service, is to "interpret" to the public about issues related to the park. As you would interpret or translate a language (such as taking Spanish and changing it into English so Americans can understand it), you are to interpret the culture, the history, the natural environment and issues regarding our Park. Your job is to find creative, interesting and fun ways to do this. People are coming to the Park to have fun and at the same time to learn something about the Park. They don't want to be lectured to and feel like they are in school. You should help them understand in an interesting and fun way so that they will enjoy learning!

As you know, some interpretive signs about the cultural and natural history have already been installed on the Juan Bautista de Anza National Historical Trail, and both Tubac Presidio State Historic Park and Tumacacori National Historical Park offer interpretive programs. However, much remains to be explained, especially with the issues of water, ATVs, pollution and littering.

It is with great expectations that I assign to you the job of interpreting these four issues. Please divide your crew into four teams and each take an issue. After studying and discussing the issue, each team is to create an interpretive presentation to inform and educate the public about their issue. It may be a short talk or demonstration, a poster or art object, or a radio or TV advertisement.

Once again, thank you for your continued efforts. Keep up the good work!

Sincerely,

J.T. Bolosmith
Superintendent
DESCRIPTION: THE FUTURE OF THE SANTA CRUZ RIVER VALLEY ULTIMATELY RESTS WITH OUR YOUTH. IN THIS ACTIVITY, STUDENTS WILL BE MEMBERS OF AN AGENCY IN THE YEAR 2050. THEY WILL CREATE AN INFORMATIVE DISPLAY REGARDING THE CONCERNS OF THEIR AGENCY FOR THE AREA.

SANTA CRUZ COUNTY-2050!

BACKGROUND INFORMATION

Currently the Santa Cruz River Valley claims to have a population of over 33,000 (1995). With retirees immigrating to Green Valley from the north, and people moving to Nogales to work with NAFTA, (North American Free Trade Agreement) -related projects and business, the area is rapidly growing. Increased development and population means more employment, education and recreational opportunities. At the same time, those who have chosen rural living away from the city may not be able to keep the slow-paced lifestyle they currently enjoy. This then, poses a dilemma for our youth. Will Santa Cruz County grow to be as large as Pima County, with 728,425 people (1994)? What will their future be like? How much say will they have in that future? What role will agencies working in the area like the National Park Service (Tumacacori National Historical Park) or Arizona State Parks (Tubac Presidio State Historic Park) play in the future?

Use the Information on Master Page IX - 14 along with other research material to help your students complete this assignment.

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**ACTIVITY**

- Divide the class into ten groups. Give each group a different *Agency Information Card* from Master Page IX - 14. Explain to them that each student is to be part of a special team. The goal is for their agency or bureau to create a display depicting life in the Santa Cruz River Valley in the Year 2050. Each display will then be presented as part of a symposium or fair.

- Using the information on Master Page IX - 14 and the questions below as references, review and discuss with your class the current situation in the Santa Cruz River Valley:

  - What kind of crops are grown? What kind of problems do the local farmers face?
  - What public services does the valley offer?
  - Would you say that people are educated in the valley?
  - If a friend or relative were to visit, where would you take them? What would you see?
  - Do you think that the health services in the valley are sufficient? How could we improve them?
  - Is the area a safe place? How could we make it safer?
  - Is there a big problem with illegal immigration in the valley? Should we try to stop illegal immigrants from moving through or to the area? How?
  - Is there much pollution in the valley? What kinds? Is there anything you could do to help?
  - Why is the river important? Do you think it is something worth preserving?
- Working in their small groups (agencies) have students use their Agency Information Card and other research material (check the Encounters Box, library, agency contacts, etc.) in order to complete the following assignment:

1) If you were to live in the Santa Cruz River Valley in the year 2050, what would it be like? Use the information on your card as well as other materials from books, magazines, talking with people, and your imagination to help you predict the future.

2) Create a display for your agency. Make posters, activities, and things to touch so that others can learn about your agency.

- Hold a fair in which each group can set up their display. With the whole class listening, go from display to display giving each group time to explain their work to the class.

**Enhancements**

- Use all of the different displays and information to create a master plan for the future of the Santa Cruz River Valley.
- Elaborate on the theme by playing the “Community Game” (found in the Encounters Box, green section).
- Contact individual agencies for information and research.
- Invite a guest speaker from one of the agencies.

**RESOURCES AND REFERENCES**

“Community Profiles” from Tubac, Nogales or Santa Cruz River Valley (see Encounters Box, Green Section, or contact the Chambers of Commerce); AZ State Government Water Resources (520) 761-1814; AZ Department of Agriculture (520) 287-7887; AZ Department of Environmental Quality (800) 234-5677; AZ Department of Health Services (800) 221-9968; AZ State Parks (520) 398-2704; Nogales Chamber of Commerce (520) 398-2252; US Fish and Wildlife Service, (520) 823-4251; US Forest Service (520) 281-2297; US Office of Mineral Resources (520) 670-5504; National Park Service (520) 398-2341.
## DEPARTMENT OF AGRICULTURE
- There is a wide variety of crops and farming in the Santa Cruz Valley, from grape growing to large cattle ranches. Alfalfa, wheat, cotton, corn and barley are also grown.
- Over the last 5 years, farmers have been growing less.
- There are now more U-Pick farms than before.
- There are 7,400 farms in Arizona.
- Water is extremely important. The amount of water available will determine how much farmers can grow.

## PUBLIC SERVICES
- One daily, one weekly, and three monthly newspapers, eight radio stations, two TV stations and Cable TV.
- Five industrial parks and one international airport.
- 19 motels with 800 units and six meeting facilities.
- Four campgrounds, nine parks, a museum, four recreation centers, four public swimming pools, six athletic fields, three libraries and three golf courses.
- Local police and fire departments in each town.

## BOARD OF EDUCATION
- 57% of the population have a high school diploma.
- 10% have a college degree or higher.
- There are twelve elementary schools, three middle schools, four high schools, and three private schools in the county.
- Nogales has more than 6,000 students.
- Pima College offers classes in Nogales.

## TOURIST BUREAU
- There is plenty of rain and the weather is great.
- There are lots of things to do including: Tubac Presidio and Patagonia Lake State Parks, Tumacacori National Historical Park, Whipple Observatory, the Anza Trail and Sonora Creek Preserve.
- Tubac and Patagonia are excellent places to shop.
- The Santa Cruz Valley at Nogales borders Mexico. The geography varies from the desert at 3,000 feet to the mountains at over 9,000 feet.

## DEPARTMENT OF HEALTH
- There is one community hospital with 80 beds, 34 doctors, 6 dentists, and 10 other health professionals.
- If there is a serious accident, victims are sent to Tucson.
- In 1989 there were 40 underweight newborns which tells us there may be a problem with nutrition.
- In 1989 there were 700 births paid for by the State of Arizona because parents were unable to pay.
- Compared nationwide, Nogales has a high rate of rare types of cancer.

## POLICE DEPARTMENT
- There are no new patterns to crime but most of the problems happen along the border.
- The crime rate goes up and down from year to year.
- During the first 60 days of 1996, smugglers were caught with more than $116 million of marijuana and cocaine. This amount is enough to pay the City of Nogales' operating costs for ten years.
- In 1995 there were 3 murders, 49 robberies, 84 assaults, 371 burglaries, 134 grand theft, 124 narcotics, 9 arsons, and 113 drunk driver arrests.

## BORDER PATROL
- Border Patrol arrests an average of 505 illegal immigrants every day.
- 24-hour checkpoints are in place in four locations: I-19, Patagonia Highway 82, outside Wilcox and in Douglas.
- Border Patrol arrests in 1995 were more than four times the population of Santa Cruz County.
- There is a proposal to put a permanent checkpoint station at Agua Linda Road in Amado.

## ENVIRONMENTAL PROTECTION AGENCY
- Air quality is currently measured at four sites, two in Arizona and two in Mexico.
- Air pollution comes from automobiles, factories, smoke from fires and dust from unpaved roads.
- Nogales has one of the highest rates of a rare type of cancer and a disease called lupus.
- Trash and dangerous chemicals are dumped into the Nogales Wash which is washed to other areas north.
- Some problems occur from leaky septic systems.
<table>
<thead>
<tr>
<th><strong>TUMACACORI NATIONAL HISTORICAL PARK</strong></th>
<th><strong>FRIENDS OF THE SANTA CRUZ RIVER</strong></th>
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<tbody>
<tr>
<td>◇ The site of Kino's mission at Tumacacori was declared a National Monument in 1908 by Teddy Roosevelt.</td>
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<td>◇ In 1918 the National Park Service took over and restored the old mission as a ruin at Tumacori.</td>
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<td>◇ Their goal is to preserve, protect the ancient mission while providing opportunities for the public to visit and enjoy the site.</td>
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<td>◇ In 1991 Congress added the ancient ruins of Guevavi and Calabasas. The Monument is renamed Tumacacori National Historical Park.</td>
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<td>◇ The Santa Cruz River is an oasis in the desert.</td>
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<td>◇ About 90% of the wildlife rely on the river to survive.</td>
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<td>◇ The desert riparian community is one of the most endangered ecosystems in the country.</td>
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<td>◇ Mesquite Bosques (forests) line the sides of the river.</td>
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<td>◇ There are over 200 species of birds and lots of other wildlife that rely on the river, many of which are rare.</td>
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<td>◇ As more and more people move to the Santa Cruz Valley, the river environment may become endangered.</td>
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