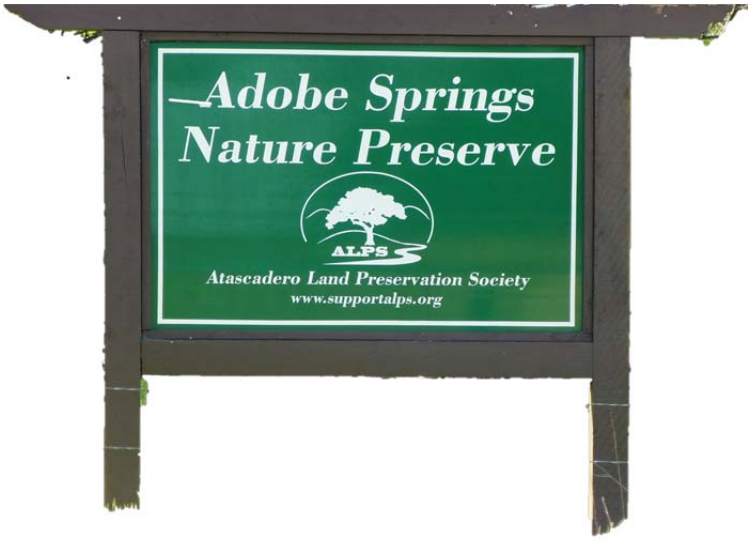
Adobe Springs Interpretive Program

Third Grade Lesson Plans

Aligned with the Common Core & Next Generation Science Standards



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With our thanks, ALPS Adobe Springs Committee Members: Jonalee Istenes, Adobe Springs Interpretive Program Coordinator; Deb Dight, ALPS Board Member; and Mike Orvis, ALPS President.

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About Adobe Springs

On the eastern side of Atascadero, California, a five-acre tract of land with a series of artesian springs has been acquired by the Atascadero Land Preservation Society (ALPS). Appreciating the great historic and natural value of this resource to the community, ALPS named this parcel 'Adobe Springs' in recognition of an old adobe structure built nearby. The springs flow from pressure built within deep confined geologic strata resulting in consistent flow and temperature (~65°F) minimally affected by surface weather.

Historically, many groups have utilized the springs. They provided reliable drinking water for Native Americans for many centuries while also being a valuable water source for wildlife, especially in late fall, when other water sources have dried. When European explorers began migrating and settling in this area, their use of the springs for drinking water is well documented. The Juan Batista de Anza party journeyed along the Salinas River corridor in the late 18th Century and benefited from these springs. In the 1810's, an adobe was constructed near the springs as a southern outpost for Mission San Miguel. In the mid-1800's Pedro Estrada and his family acquired a Mexican land grant on the territory where Atascadero is today. The adobe became the home of the Estrada family until 1897 and then was used by transients and railroad works for many years. The adobe lasted over 150 years but eventually disintegrated from neglect.

The Atascadero Land Preservation Society is the proud steward of Adobe Springs today. Future plans for Adobe Springs include restoration of native habitat and providing environmental education opportunities through docent led hikes for local schools and the community.

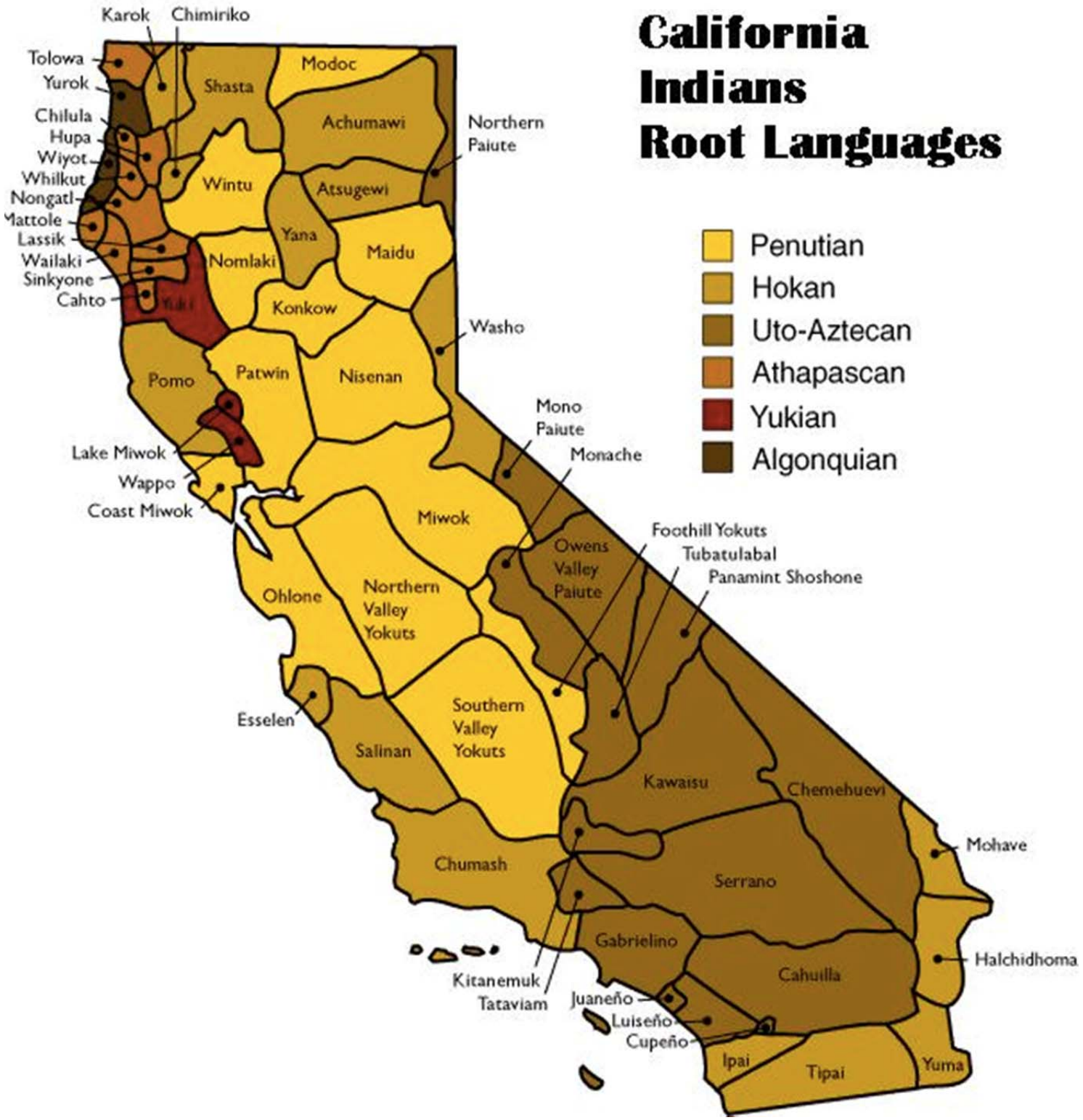
For more information or to contact ALPS, visit www.supportalps.org.

Adobe Springs Portfolio

Before you begin the Adobe Springs unit, consider creating a portfolio that will hold all of the worksheets and activities. Note: This portfolio would not be able to be assembled until all of the worksheets and items that you would like in it are completed.

1. Take a piece of 9" x 12" construction paper and let the students decorate the cover with the title "Adobe Springs" and their names. This will be the cover.
2. Put all of the worksheets and papers that will be a part of the student portfolio after the cover page. Then use another sheet of the same sized construction paper for the back cover of this book.
3. Make two holes on one side, but not too close to the edge. Make sure all of the papers are lined up between the cover page and back page.
4. The students will use a stick and a long rubber band for the binding. Put the rubber band through each of the hole punches from the back side. Slip the rubber band over both ends of the stick on the front cover.
5. Now you have an Adobe Springs Portfolio!

*An example of this portfolio is included in the teacher's kit.


California Indians Root Languages
Penutian
Hokan
Uto-Aztecan
Athapascan
Yukian
Algonquian
Karok
Chimiriko
Tolowa
Yurok
Chilula
Hupa
Wiyot
Whilkut
Nongatl
Mattole
Lassik
Wailaki
Sinkyone
Cahto
Shasta
Modoc
Achumawi
Northern Paiute
Wintu
Atsugewi
Yana
Maidu
Nomlaki
Konkow
Washo
Pomo
Patwin
Nisenan
Mono Paiute
Monache
Lake Miwok
Wappo
Coast Miwok
Miwok
Foothill Yokuts
Tubatulabal
Panamint Shoshone
Owens Valley Paiute
Ohlone
Northern Valley Yokuts
Esselen
Southern Valley Yokuts
Salinan
Kawaisu
Chemehuevi
Mohave
Chumash
Serrano
Gabrielino
Halchidhoma
Cahuilla
Kitanemuk
Tataviam
Juaneño
Luiseño
Cupeño
Ipai
Tipai
Yuma

Salinan Vocabulary

English	Salinan
acorn mush or soup	Na’sil
acorns	K^c-ap^c
antlers	etala-k
basketry hats	Ts! waketE’
beads, pink	Kni el i
brother	ito’l
cloud	pa’—i
coiled baskets	T Eca’
dog	xute
elder brother	ka’i
eye	cuke’net
father	ek’
feathers, whiskers	ecax
finger, toe	a—pela’i
fire	ta’a’u’
games	kusku'i
girls	see'l
grandmother	sit-jar
head	a’ak
heart	e—xiwai
hill	t’uLne
holes, caves	te—le’k’
house, my	Tama or Ta’ma
hummingbird	chuparosa
lightning	sokanto
live oak	cxau'Wat
male, man	lu—wa’
moon	tats’o’opi
morning star	macala’k
mountain	tpoi, tpo—I, tso’la
mouth	e’lek
my house	Tama or Ta’ma
neck	etea—i
night	Sm_a‘K’ai
nose	e’net
oak, hill	p^ca'pix
oak, live	cxau'WAT
oak, post	$p^c\bar{a}^c$t
oak, white	t'oi’i
parent	ienxe'
path, trails	lu'a, lue
post oak	$p^c\bar{a}^c$t
quail	ho'mlik

English	Salinan
rainbow	saiy'N
rattlesnake	Tet!aut’ onE’
seed beater	Tona’L
seed granaries	sap'k’a’
shell of egg	ca'lo
shoulder	ita'l
skin, hide	axwe'm
sky	le'ma
small trinket baskets	TopE’s
smoke	ta'te,t
son, child	as
spring of water	**telukutea'**
storm	ta'pit
sun	Na’
thunder	t'e’lowa
to eat or food	Lam
tongue	epa'l
trays	cal
trinket baskets	topE’s
white oak	t' w’i
white willow	P E sXe’ T^c
water	**tc’a**
wind	ts'a—kai
woman	lets'e’
world	emk’we’L
Numbers	
one	t'ol
two	xákic
three	lápay
four	k’íca’
five	oltááto

Adapted from: *Salinan Indians of California and their neighbors* by Betty War Brusa

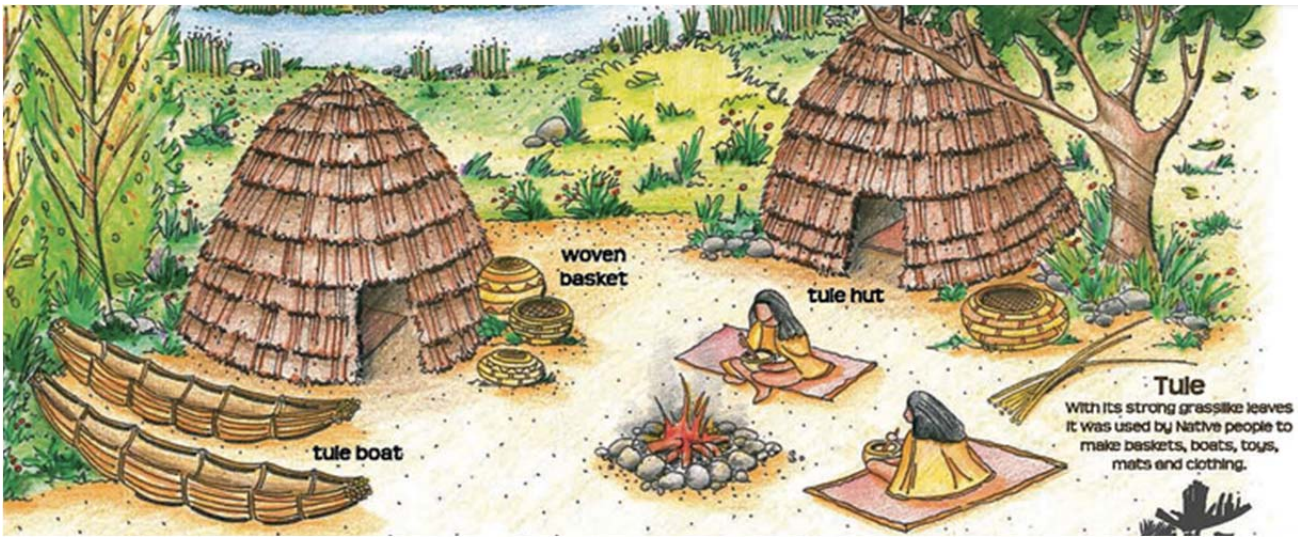
Telukutea’

Sample of Spring of Water Definition

“spring of water”

(noun)

underground water that is held in the soil and in open rocks

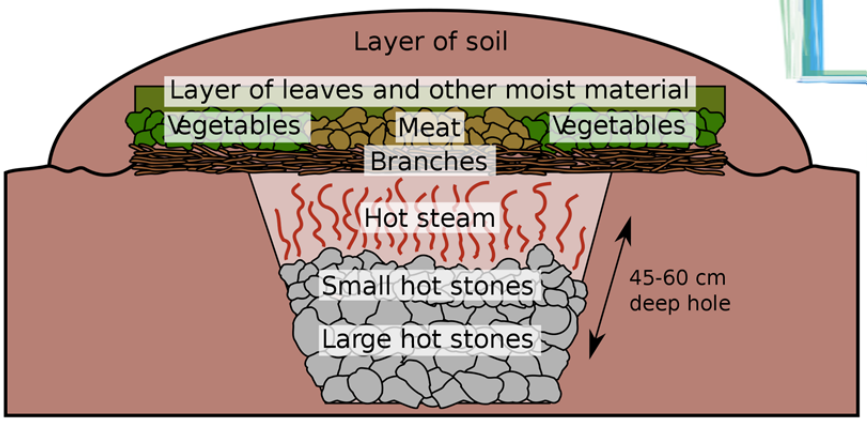

woven basket
tule hut
tule boat
Tule
With its strong grasslike leaves it was used by Native people to make baskets, boats, toys, mats and clothing.

They ate seeds (pine nuts) and berries (wild blackberries, strawberries).

Acorns from oak trees were used for making mush and flat bread.

They fished on the coast and in streams for fish and shellfish.

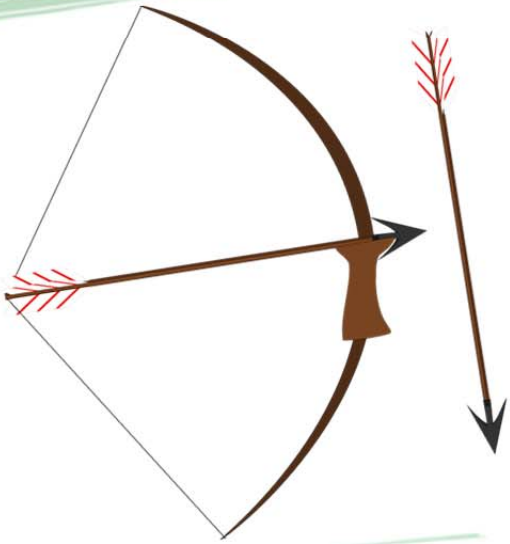
They hunted in the mountains for deer, rabbits, squirrels, and other small animals.



Earth's Oven

How to Make Bread

Acorns from deciduous oaks were gathered and stored in granaries until they were ready to be used. Granaries are tall basket like containers made from slender branches of white willow. They were constructed on the ground without a bottom. Acorns were removed from the granary and dried in the sun. Once they were dried, they were pounded to create a fine meal. The meal was kept from scattering by use of a flared hopper basket. Then the meal was leached and cooked. "Gruel" made from the acorns was known as acorn mush or soup, and it was cooked with hot stones in a basket. The stones were stirred to make sure that heating was done evenly and to prevent holes in the basket. Bread made from the meal was baked in earth's oven (a hole in the earth), and usually cooked through the night.



Geography

Color where the Salinan Tribe lived.
With another color, color the area of the people who they traded with.

Money

Draw the three different colors of shells.

Salinan Language

Salinan Word: _____

Definition: _____

_____

Traditional Salinan Song

Deer Song

Toe Pay Ca Ha Ten
Toe Pay Ca Ha Ten

Et Ta Co Low Ta Ah
Et Ta Co Low Ta Ah

Toe Pay Ca Ha Ten
Toe Pay Ca Ha Ten

Et Ta Co Low Ta Ah
Et Ta Co Low Ta Ah

Ho

Native Americans: Salinans

Name:

_____

Teacher:

_____ Grade:

_____ Date:

Men & Boys' Jobs

Women & Girls' Jobs

Food

What are 3 foods that the Salinans ate?

1. _____
2. _____
3. _____

What did they use to make bread?

Weather Forecast for the Acorn Harvest Ceremony

Homes (Ta'ma)

What were the Salinans homes made out of?

_____

Draw the shape of the homes

How long was the house?

_____

What was in the middle of the house?

_____

Draw a Salinan home.

Next Generation Science Standards:

[3-LS2-1] Construct an argument that some animals form groups that help members survive.

Adapted from:
Project Wild, K-12 Curriculum & Activity Guide

What Seeds Did the Animals Find?

What does the seed look like?	What kind of seed do you think it is?	What could the Salinans do with this seed? (trade, eat, etc.)

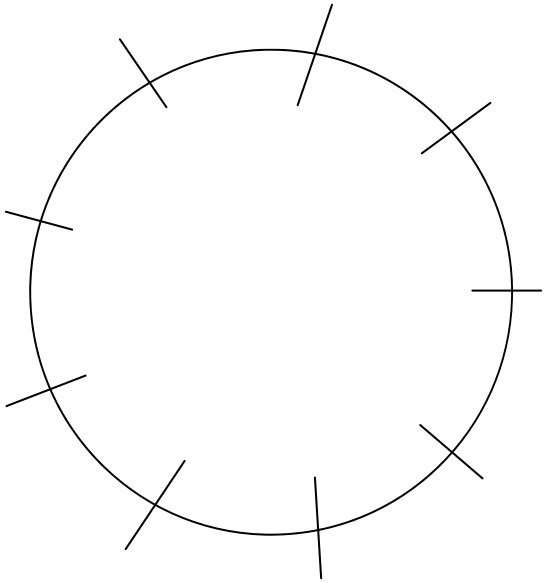
The different shapes of leaves that the Salinans saw at Adobe Springs are…

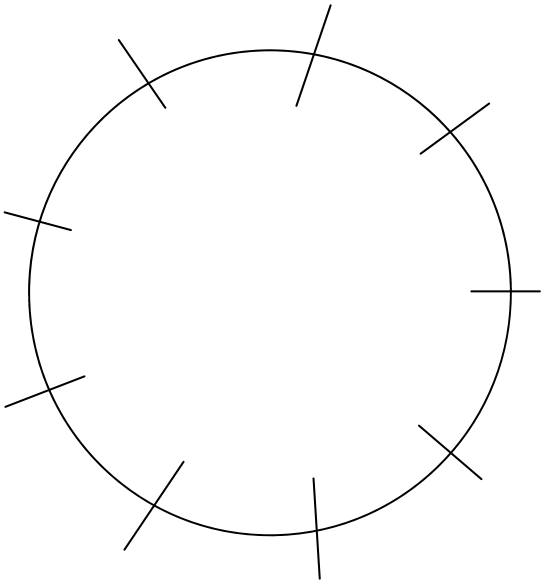
Salinan Baskets

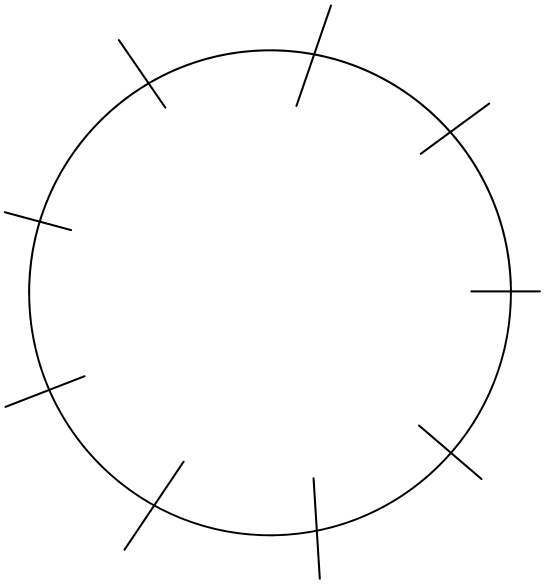
How to Make “Cup Baskets”

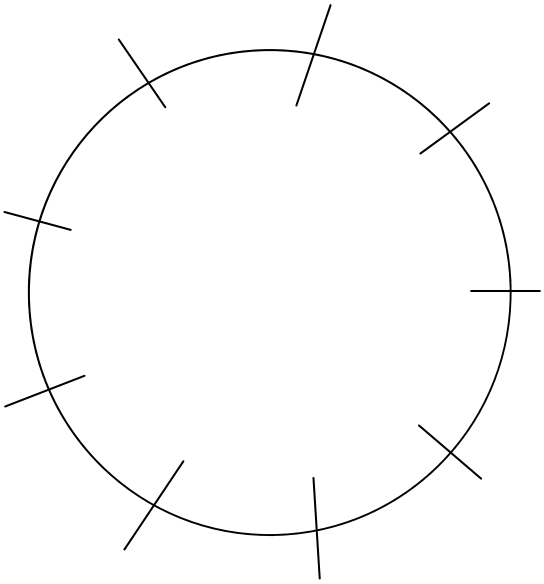
4. Then cut a piece of yarn that is the length of both of your arms outstretched.

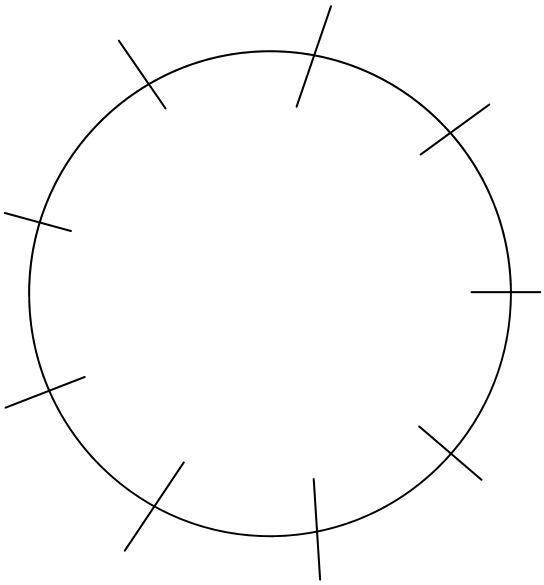
6. **Now it is time to start weaving!**

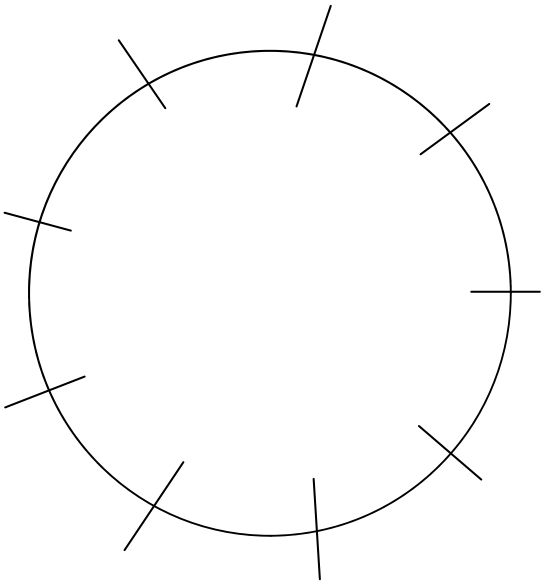


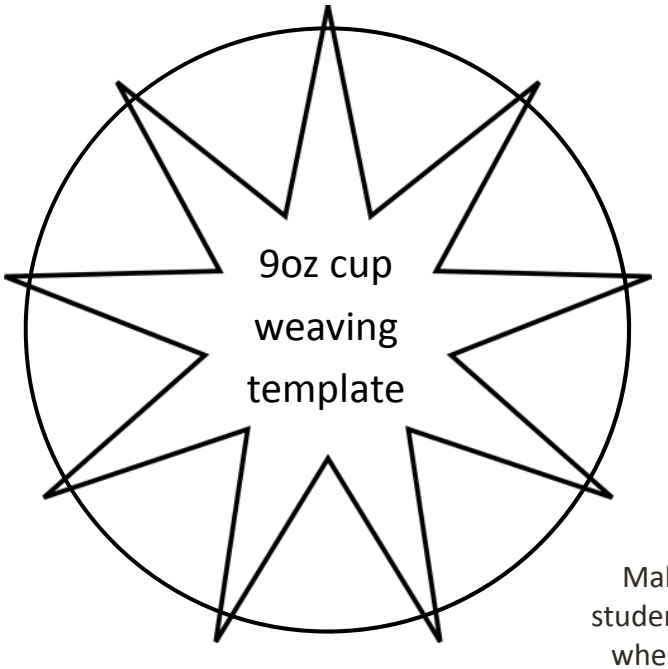


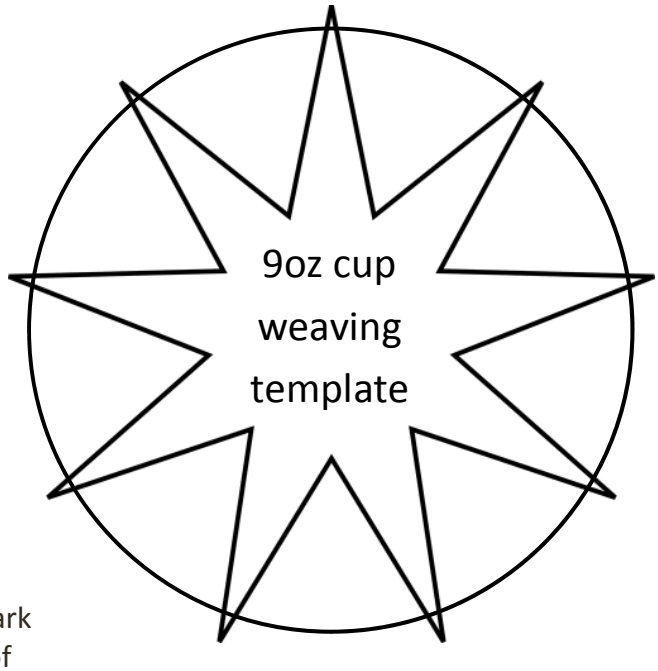




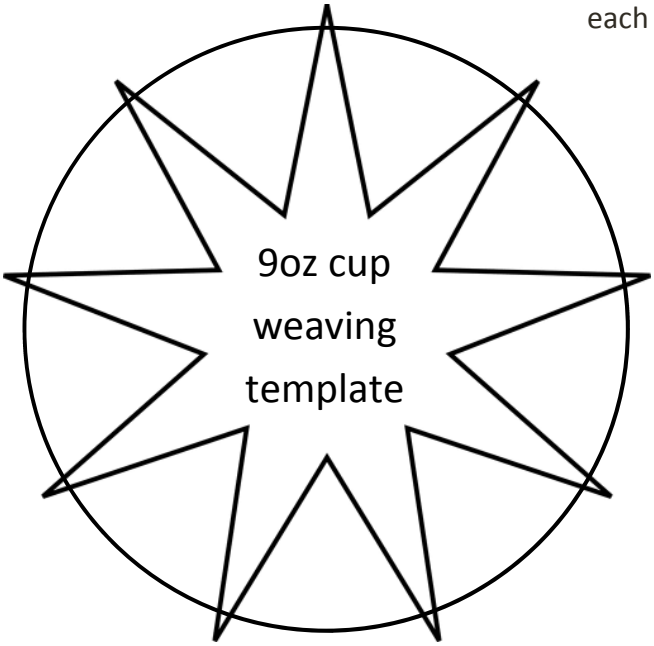


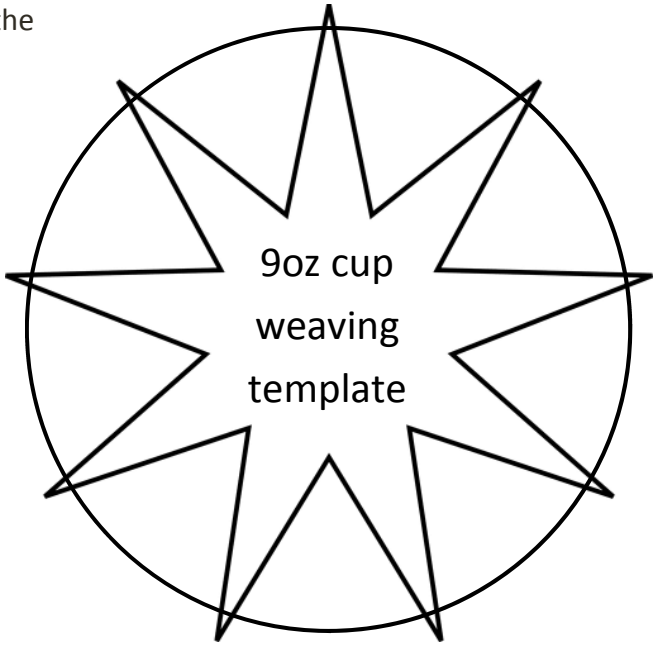


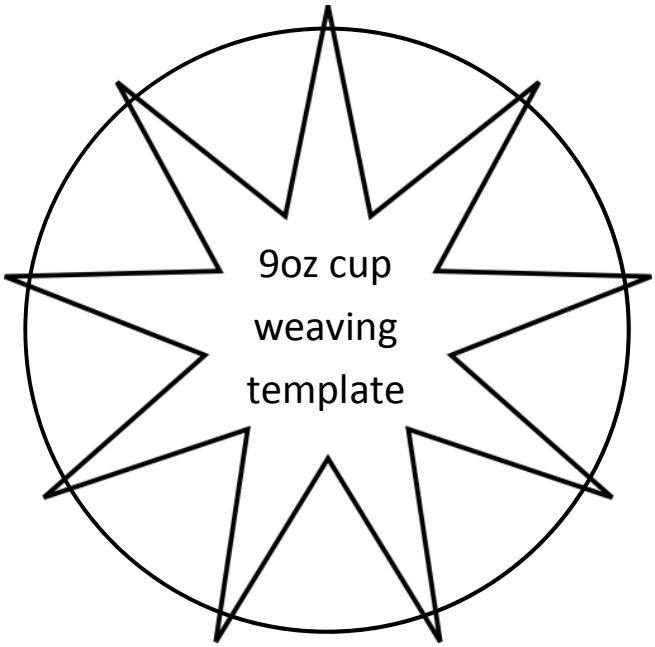


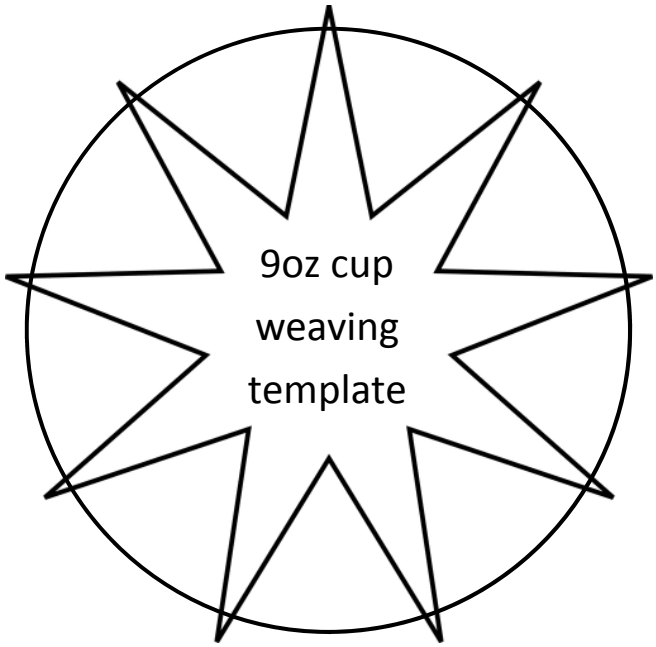


Make sure the students only mark where the tip of each star meets the circle!









Anza's letter to Don Antonio Maria Bucareli de Ursua,Viceroy of New Spain, to be read to students to begin this unit of study.

Most Excellent Sir

Sir,

The superior order of Your Excellency, dated the second of the present month, advised me that upon completion of the journey of my expedition to Monterey, I must deliver to Commander Don Fernando de Rivera y Moncada the soldiers and families that I took from Sonora, to the end that they take up residence at the Port of the San Francisco River, which particular I will fulfill exactly.

I will verify the same without the loss of time by going in partnership with the said commander to the aforementioned Port, to the end that the terrain will be examined, in view of which we will determine the site for the location of the fort to be erected as Your Excellency has directed me to travel.

I hold in my possession the corresponding packet of documents for Don Fernando de Rivera y Moncada, Reverend Father Junipero Serra and Father Francisco Garces, which I will deliver in person to prevent any accidental loss.

Our Lord guard the life of Your Excellency many years. New Spain, January 7,1775.

Most Excellent Sir
Juan Bautista de Anza

Anza 's Letter-Teacher 's Key

Most Excellent Sir **(common heading for letters in 1775)**

Sir **(This letter was sent to Antonio Maria Bucareli y Ursua,Viceroy of New Spain)**

The superior order of Your Excellency, dated the second of the present month, advised me that upon completion of the journey of my expedition to Monterey **(the first Anza Expedition 1774 –1775 that discovered the trail to Alta California),** I must deliver to Commander Don Fernando de Rivera y Moncada **(Commander of Alta California Military and Governor of the Province)** the soldiers and families that I took from Sonora **(the group he was to select and recruit),** to the end that they take up residence at the Port of the San Francisco River **(at this time it was thought that the bay was the mouth of a large river),** which particular I will fulfill exactly.

I will verify the same without the loss of time by going in partnership with the said commander to the aforementioned Port, to the end that the terrain will be examined, in view of which we will determine the site for the location of the fort to be erected as Your Excellency has directed me to travel.

I hold in my possession the corresponding packet of documents for Don Fernando de Riveray Moncada, Reverend Father Junipero Serra **(he had asked for this group)** and Father Francisco Garcés **(Garcés went, but only to the Colorado River; Font was selected to go in his stead because he could use the quadrant and record latitudes),** which I will deliver in person to prevent any accidental loss.

Our Lord guard the life of Your Excellency many years. New Spain, January 7,1775.

Juan Bautista de Anza

Colonist Families of the 1775-76 Anza Expedition

SOLDIERS AND THEIR FAMILIES

Lieutenant Moraga, José Joaquín	34
Sergeant Grijalva, Juan Pablo	33
María Dolores Valencia	31
María Josefa	6
María del Carmen	5
Manuel Claudio Salvador Alvírez (servant)	21
Aceves, Antonio Quiterio	35
María Feliciana Cortés	30
María Petra	12
Juan Pablo	10
José Cipriano	6
Juan Gregorio	4
María Gertrudis	3
José Antonio	20
Altamirano, Justo Roberto	30
María de Loreto Delfín	27
José Antonio	7
José Matias	7 mo.
Álvarez de Acevedo, Luis Joaquín	35
María Nicolasa Ortiz	30
Juan Francisco	12
María Francisca	6
Alviso, Domingo	35
María Ángela Chumacero	30
Francisco Alviso	14
Francisco Xavier	12
María de Loreto	8
Juan Ignacio	5 mo.
Amézquita, Juan Antonio	35
Juana Gaona	30
Salvador Manuel	14
Manuela Rosalía Zamora (wife of Salvador Manuel)	13
María Josefa	12
María Dolores	8
María Matilde	4
María de los Reyes	3
Arellano, Manuel Ramírez	33
María Agueda López de Haro	17
Mariano Ramírez de Arellano	1
Matías Vega (his adopted son)	25
Bernal, Juan Francisco	38
Ana María Josefa Soto	35
José Dionisio	17
José Joaquin	15
Juan Francisco	14
José Apolinario	10
Tomas Januario	7
Ana María	5
María Teresa	2
Bojórquez, Pedro	21
María Francisca de Lara	18
María Agustina	1
Bojórquez, Ramón	32
María Francisca Romero	30
María Gertrudis	14
María Micaela	12
Ignacio Anastasio de Higuera (husband of Micaela)	18
Castro, Joaquin Isidro de	43
María Martina Botiller	40
Ignacio Clemente	22
Ana Josefa	18
José Mariano	14
Francisco Antonio	9
María Encarnación	8
José Joaquin	7
Francisco	5
María Martina	4
Carlos Antonio	6 mo.
Féliz, Vicente	34
María Ignacia Manuela Piñuelas (died during the expedition)	31
José Francisco	12
José Doroteo	10
María de Loreto	8
María Antonia	6
María Manuela	4
José de Jesus	2
José Antonio Capistrano (born during the expedition)	
Gallegos, Carlos	34
María Josefa Espinosa	17
Garcia, José Antonio	42
Petronila Josefa Acuna	28
José Vicente	12
José Francisco	9
María Graciana	7
Juan Guillermo	5
María Josefa	3
Gutiérrez, Ignacio María	30
Ana María de Osuna	25
María de los Santos	8
María Petra	7
Diego Pascual (born during the expedition)	
Linares, Ignacio	30
Gertrudis Rivas	22
María Gertrudis	7
José Ramón	4
María Juliana	3
Salvador Ignacio (born during the expedition)	

López, Sebastián Antonio	47
Felipa Neri	45
María Tomasa	20
Sebastián Antonio	17
María Justa	5
Mesa, Valerio	33
María Leonor Borboa	30
José Joaquín	13
José Ignacio	12
José Dolores	9
María Manuela	8
José Antonio	7
Juan	5
Pacheco, Juan Salvia	46
María Carmen del Valle	40
Miguel	25
Francisco	15
María Gertrudis	13
Bartolomé	10
Bárbara	8
Peralta, Gabriel de	40
Francisca Manuela Valenzuela	33
Juan José	18
Luis María	16
Pedro Regalado	15
María Gertrudis	9
Pico, Santiago de la Cruz	38
María Jacinta Bastida	26
José María	7
José Dolores	6
Francisco Javier	5
José Miguel	4
José Patricio	3
María Antonia Tomasa	2
María Josefa (relative)	15
Pinto, Pablo	43
Francisca Javiera Ruelas	40
Juan María	16
Juana Santos	16
Casimiro Varela (husband of Juana Santos)	27
José Marcelo	14
Juana	12
Sánchez, José Antonio de	29
María Dolores Morales	26
María Josefa	3
José Antonio	2
Ignacio Cárdenas	
Sotelo, José Antonio	29
Gertrudis Peralta	25
Juan Antonio	12
Ramón	5
Soto, Ignacio de	27
María Bárbara de Espinosa	18
Simón Antonio de Soto	14
José Antonio	2
María Francisca	1
Tapia, Felipe Santiago	39
Juana María Cárdenas	23
María Rosa	13
María Antonia	12
José Bartolomé	11
Juan José	9
José Cristóbal	8
José Francisco	7
María Manuela	6
María Isidora	5
José Victor	6 mo.
Valencia, José Manuel	36
María de la Luz Muñoz	30
María Gertrudis	7
Francisco María	5
Ignacio María	2
Valenzuela, Agustín de	30
Petra Ignacia de Ochoa	20
María Ceferina	3
Vázquez, Juan Atanasio	40
María Gertrudis Castelo	25
José Antonio	8
Pedro José	7
José Tiburcio (relative)	20
María Antonia Bojórquez (wife of José Tiburcio)	

NON-MILITARY FAMILIES ON THE EXPEDITION*

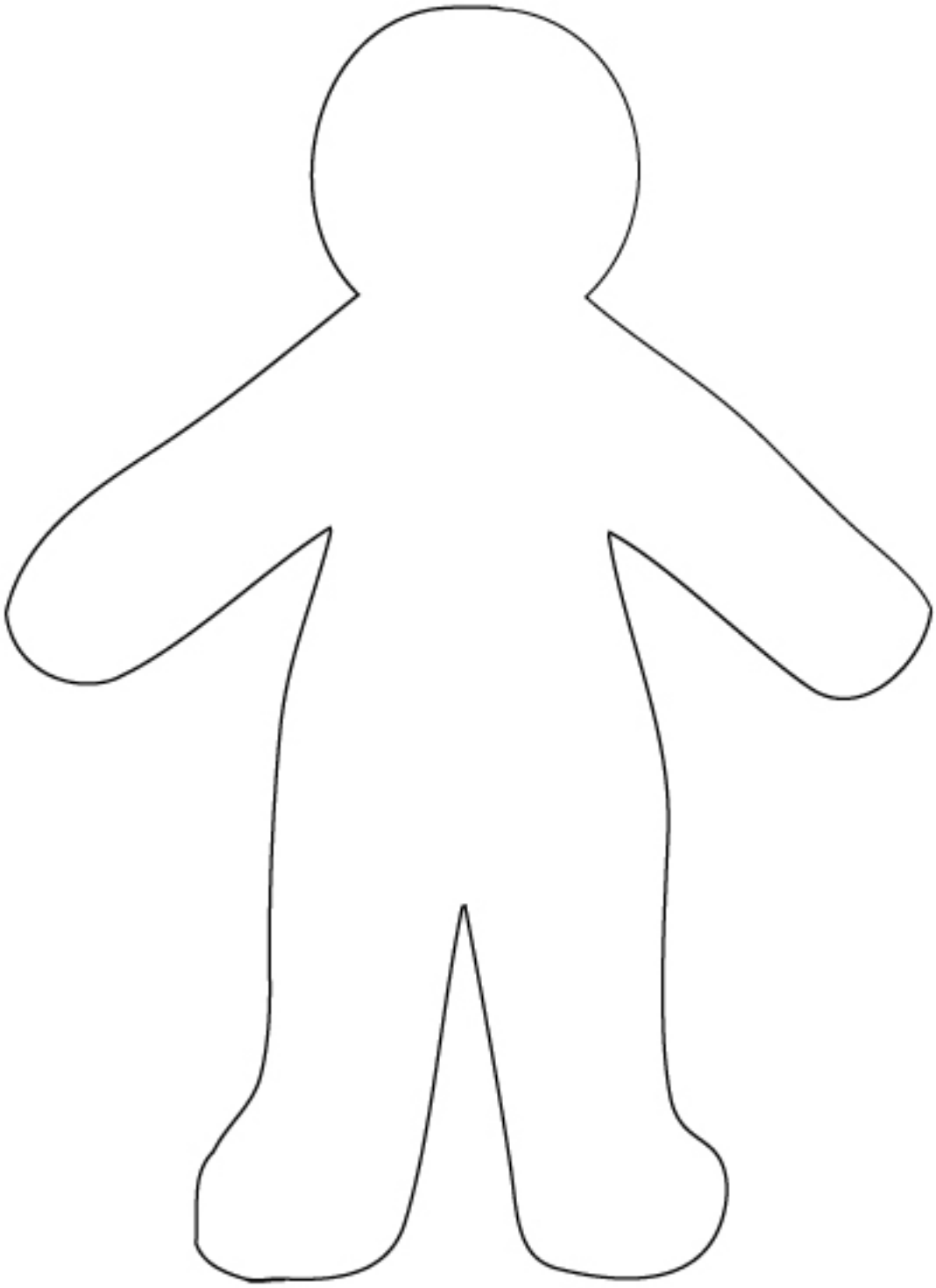
Arballo, Feliciana (widow)	25
María Tomasa Gutiérrez	4
María Eustaquia	1 mo.
Berreyesa, María Isabel	18
Nicolás Antonio (siblings)	15
Galindo, Nicolás	33
María Teresa Pinto	18
Juan Venancio	5 mo.
González, José Manuel	35
María Micaela Ruiz	28
María Gregoria	15
Juan José	14
María Ana	8
Ramón	6
Francisco	1
Sandoval, Gregorio Antonio	30
María Dolores Ontiveros	19

*Does not include mulateers, cowboys, guides, translators, and other expedition members.

Read All About Me! (Anza Edition)

Paper Doll Template

Print this on cardstock and cut it out. Then trace the doll template to be cut out by the students.



Daily Travel

Each day we follow a routine while we are traveling. First we get up and dress. Then we go to Mass. After Mass we eat our breakfast of atole (gruel of ground corn) and chocolate. Our tent and provisions must be packed on the mules, but of course the muleteers must be able to gather the mules first. Many nights the mules have strayed while grazing and they must be led back to the campsite.

If all is ready the commander tells us to start. Some of us walk instead of riding on horseback. If the weather has been cold it feels better to walk anyway. As we start along we all sing the "Alabado." We have brought along snacks to eat if we get hungry. We will not stop to eat until we reach this night's new campsite. The new site should have good water and grass for the animals to graze on. Once a good place has been found the mules and horses must be unpacked and the tents set up. Dinner is prepared for we are all hungry. If no meat has been found to shoot along the trail we may kill one of the beef cattle for dinner to put in our sopa (a stew of beans and meat) which we eat with tortillas. If it has been a short travel day Father Font may play his instrument for us to enjoy. Usually we are so tired at the end of the day that after dinner we go right to bed.

Some days if water was scarce we will travel hard all day and then the next morning we will hurry to the next good waterhole. Capt. Anza will then let us stop early so we can rest.

The next day will be like before. There will be new sights to see and new problems to solve during the many leagues we travel. Then we will do it all again until we finally get to Monterey.

The Anza Expedition 1775-1776

In 1776, while American patriots fought for their independence from England, Spanish Lt. Colonel Juan Bautista de Anza led more than 240 men, women, and children some 1,800 miles to establish a settlement at San Francisco Bay.

These families were the first colonists to come overland across the frontier of New Spain into present-day California.

Al mismo tiempo que en 1776 los patriotas angloamericanos iniciaban la lucha por su independencia de Inglaterra, el teniente coronel español Juan Bautista de Anza condujo a unas 240 colonos más de 2900 kilómetros para establecerse en Alta California.

Era la primera vez que se utilizaba la ruta terrestre de Nueva España para traer pobladores, en este caso los que habían de establecer el pueblo de San Francisco.

www.nps.gov/juba | www.anzahistorictrail.org | @AnzaTrailNPS

The Anza Expedition Scavenger Hunt

Directions: Using the Internet, type into the address bar this website: http://www.anzahistorictrail.org/visit/explorer

1. What day did the Anza Party start their journey (Camp #0)?
2. _____

   Outline on the map the Anza Trail in California (on the other side).
3. Where was the Anza Party on March 2, 1776?

   _____
4. Put a star where Atascadero (La Assumpcion) is on the map (on the back of this page) and label it Atascadero.
5. What day was the Anza Tribe in Atascadero (La Assumpcion)?
6. _____

   On March 27, 1776, de Anza reached his final destination (Camp #95). Where was this?
7. _____

   Put a different colored star on the map and label it: Final Destination.

The Anza Expedition Scavenger Hunt **(KEY)**

Directions: Using the Internet, type into the address bar this website: http://www.anzahistorictrail.org/visit/explorer

1. What day did the Anza Party start their journey (Camp #0)?

   September 28, 1775

2. Outline on the map the Anza Trail in California (on the other side).
3. Where was the Anza Party on March 2, 1776?

   Mission San Luis Obispo

4. Put a star where Atascadero (La Assumpcion) is on the map and label it Atascadero.
5. What day was the Anza Tribe in Atascadero (La Assumpcion)?

   March 4, 1776

6. On March 27, 1776, de Anza reached his final destination (Camp #95). Where was this?

   San Francisco

7. Put a different colored star on the map and label it: Final Destination.

New Spain

July 1776

Dear _____,

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

San Francisco, Alta California

Expert 2: How was the Estrada Adobe built?

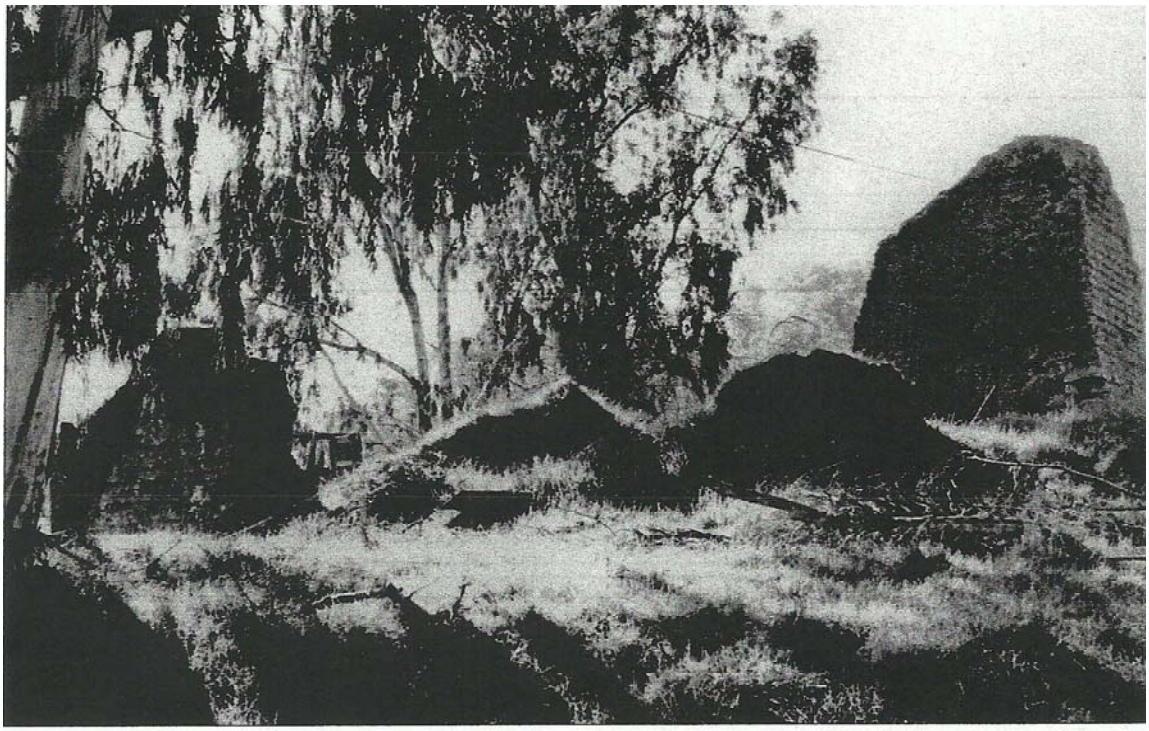
The Estrada Adobe was built by the Yokut (Tulare) and Salinan Indians who were under the control of the Franciscans at Mission San Miguel. They used several adobe bricks in order to build the Estrada Adobe. To make these adobe bricks, they used clay-rich mud, straw, animal manure and sand. They mixed these ingredients together in a pit until they got a good consistency and shoveled them in molds. The Yokut and Salinan Indians put several hundred of these molds in the sun to let them dry. Each brick was made by hand and had to dry 30 "sunny days" before they could be used to build the structure! The Estrada Adobe was 16 feet by 20 feet and was two stories high. The adobe walls were four inches thick, so the inside was a little bit smaller.

Questions:

1. What were the materials the Yokut and Salinan Indians used to make the adobe bricks?
2. What did they put the mixture in to hold the bricks?
3. How long did the bricks have to be in the sun before they were dry and they could build the structure?

Building an adobe wall

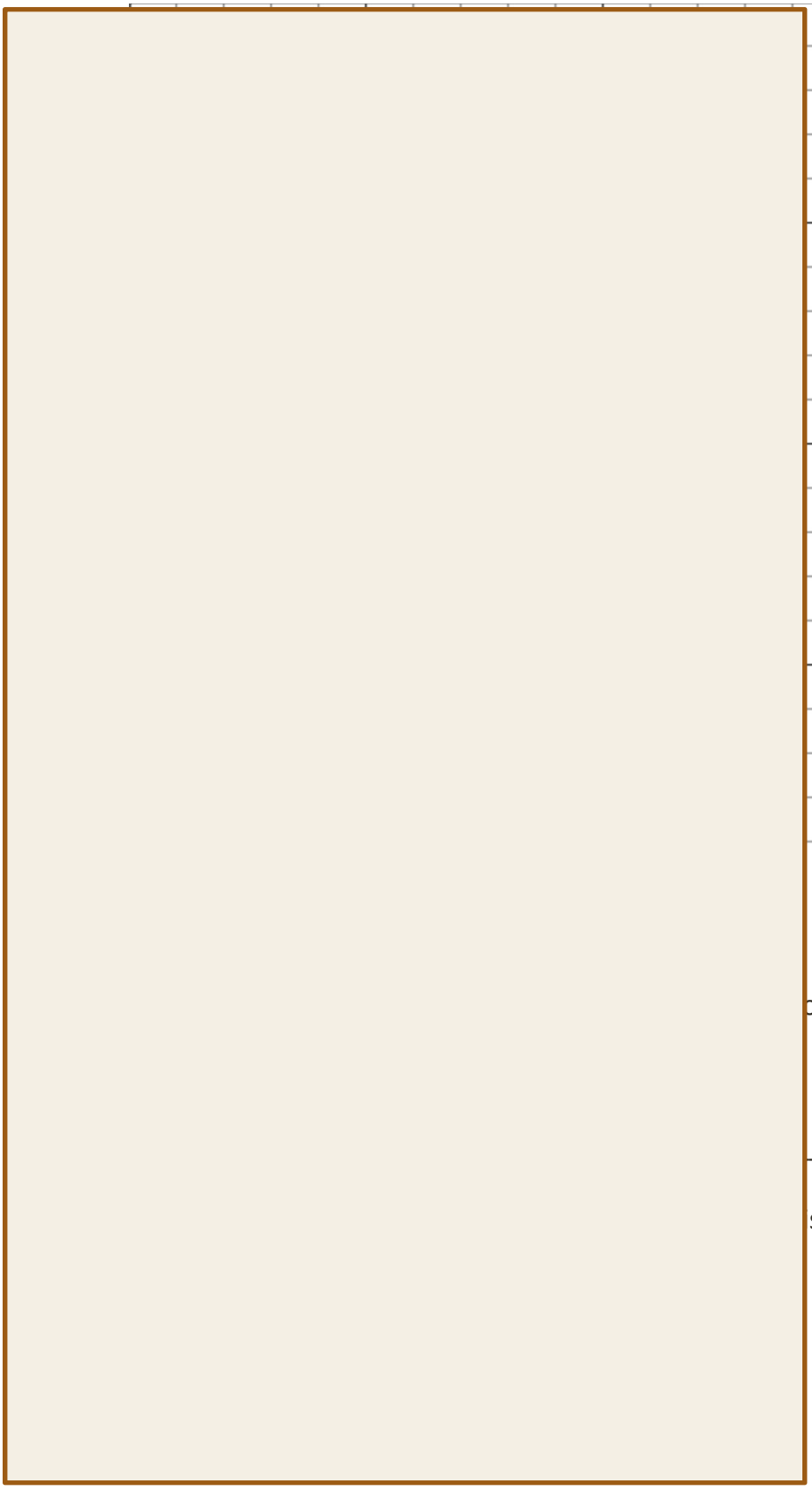
This is how the Estrada Adobe looked in the early 1940s. E.G. Lewis bought the 23,000-acre cattle ranch from J.H. Henry. The adobe stood on Traffic Way, about two miles east of El Camino Real.



In the 1960s the adobe continued to fall into disrepair. With its roof timbers removed, the adobe was vulnerable to rainfall. Here portions of two corners of the building still stand. You can see a door or window frame against one wall.

How Large was the Estrada Adobe?

1. The Yokut and Salinan Indians who built the Estrada Adobe need your help! They want you to create a scale drawing on the grid below so they can recreate the Adobe. They know that the Estrada Adobe was 16 feet by 20 feet. Outline the perimeter of the Adobe below.



by

of b

s. T

List of Year Round Plants

- Clover (Clovers)
- Lace Lichen, Spanish Moss (Ramalina menziesii)
- Coyote Brush (Baccharis perfoliata)
- Red Osier Dogwood (Cornus sericea ssp. sericea)
- Slender willow herb (Epilobium ciliatum)
- Seaside Heliotrope (Heliotropium curassavicum var. oculatum)
- Southern California black walnut (Juglans californica)
- Juncus, Rush (Juncus sp.)
- California Sycamore (Platanus racemosa)
- Fremont cottonwood (Populus fremontii)
- Coastal live oak (Quercus agrifolia var. agrifolia)
- Valley Oak (Quercus lobata)
- Polished willow (Salix laevigata)
- Poison oak (Toxicodendron diversilobum)
- Narrow leaf cattail (Typha angustifolia)

List of Spring Plants

- Common Fiddleneck (Amsinckia menziesii)
- Miner's lettuce (Claytonia perfoliata)
- Cleavers, Common bedstraw, Goose grass (Galium aparine)
- California man-root (Marah fabacea)
- California Blackberry (Rubus ursinus)

Year Round Plants

- Clover (Clovers)
- Lace Lichen, Spanish Moss (Ramalina menziesii)
- Coyote Brush (Baccharis perfoliata)
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- Narrow leaf cattail (Typha angustifolia)

Adobe Springs Animal Report

Engagement:

For this activity, engage the students in a discussion about different animals they see in the natural environment. What do animals need to survive? (e.g. water, food) Transition the students by explaining they will be doing a report on an animal that lives at Adobe Springs. Most of these animals are there because of the natural spring. Have the students choose which animal they would like to research.

Explore:

Students will be using the Internet to complete the research report. Students will have access to a Google Document with websites that are hyperlinked (they will be able to click on the links and it goes straight to the site). Students will explore different aspects of the animal of their choosing, such as characteristics, habitat, diet, life span, and interesting facts.

Explain:

There are two options on how students will explain what they have learned:

1. Students can handwrite their information onto printouts.
2. Students can type their information onto the Google Document.

At the end of their research, students will have a complete flipbook of their animal that lives at Adobe Springs. Students should cut out each rectangle of information and glue to the top of each page where it says to glue from large to small. Make sure to instruct students on the gluing, so each of the headings at the bottom are easily read.

AUSD Technology:

RI.5 Use text features and search tools (key words, sidebars, hyperlinks) to locate information efficiently.

W.6 With guidance and support from adults, use technology to produce and publish writing as well as to interact and collaborate with others.

Common Core ELA—Literacy:

W.3.4: With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

W.3.6: With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

W.3.7: Conduct short research projects that build knowledge about a topic.

glue here

What is the weather like where your animal lives? Do they build nests or houses? Do they live in trees or on the ground?

Color where your animal lives.

Habitat

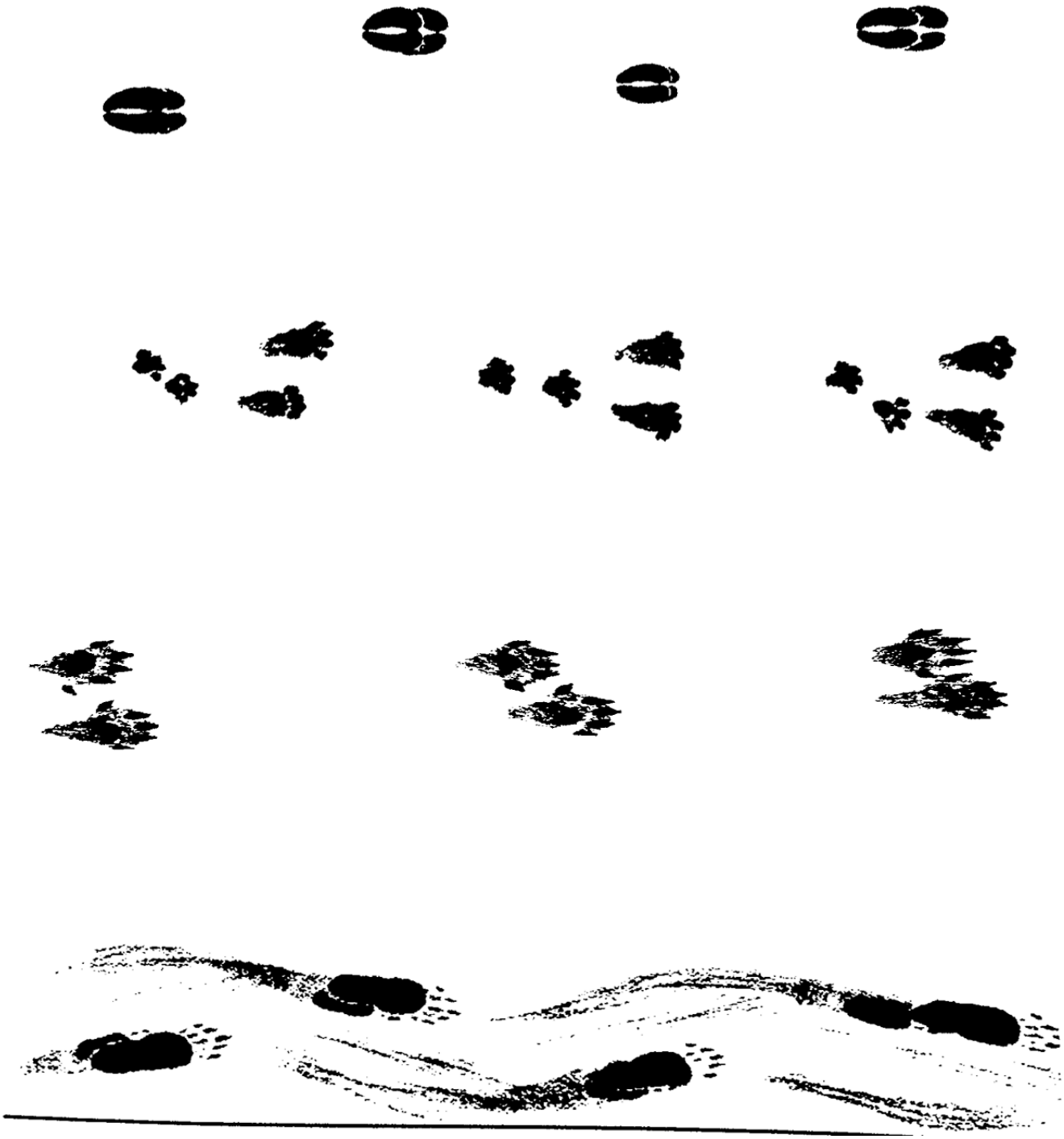
Once you finish writing cut out the rectangle above on the dashed line.

glue here

Here are some more interesting facts about my animal!

Interesting Facts

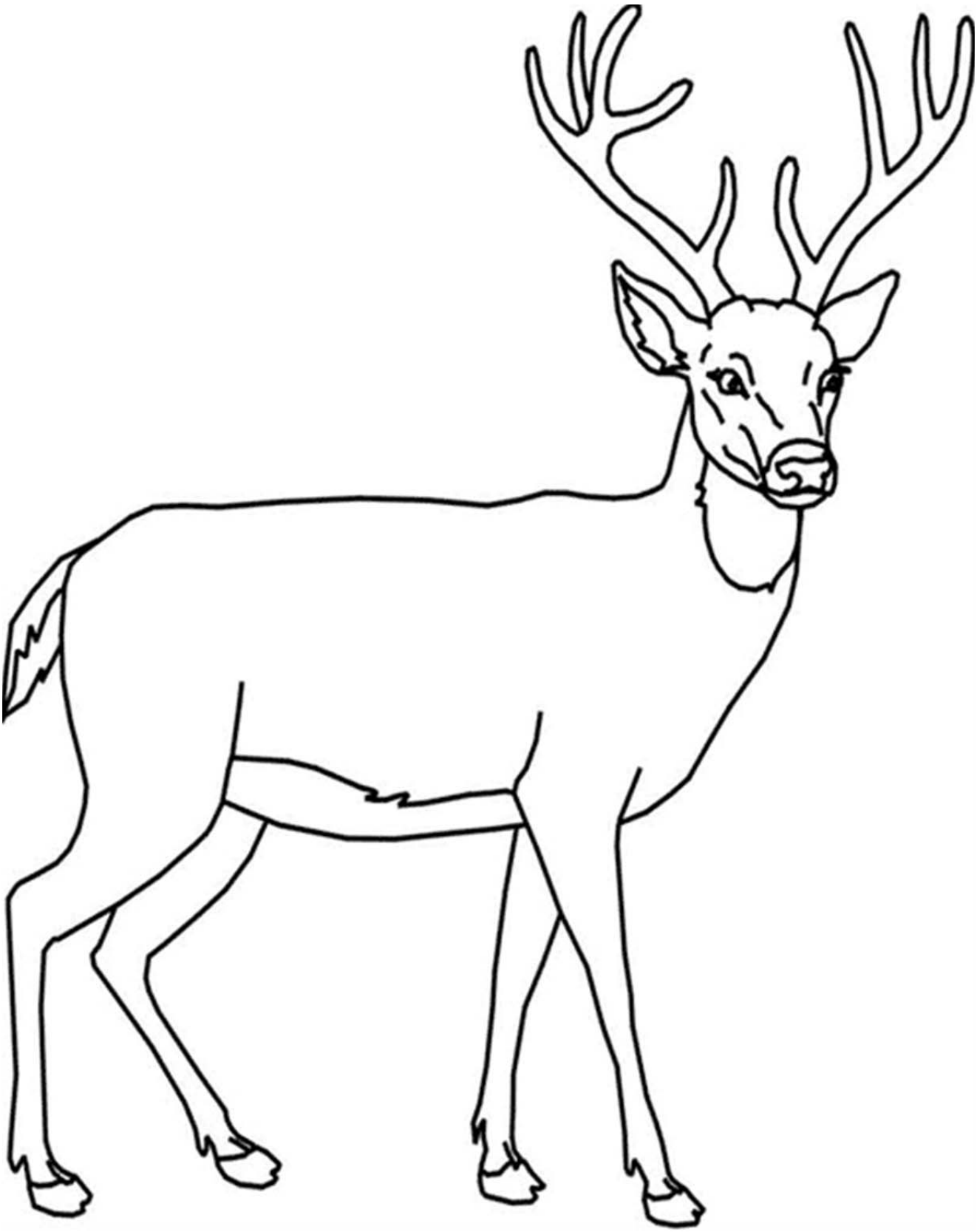
Animal Tracks—What Do They Reveal?

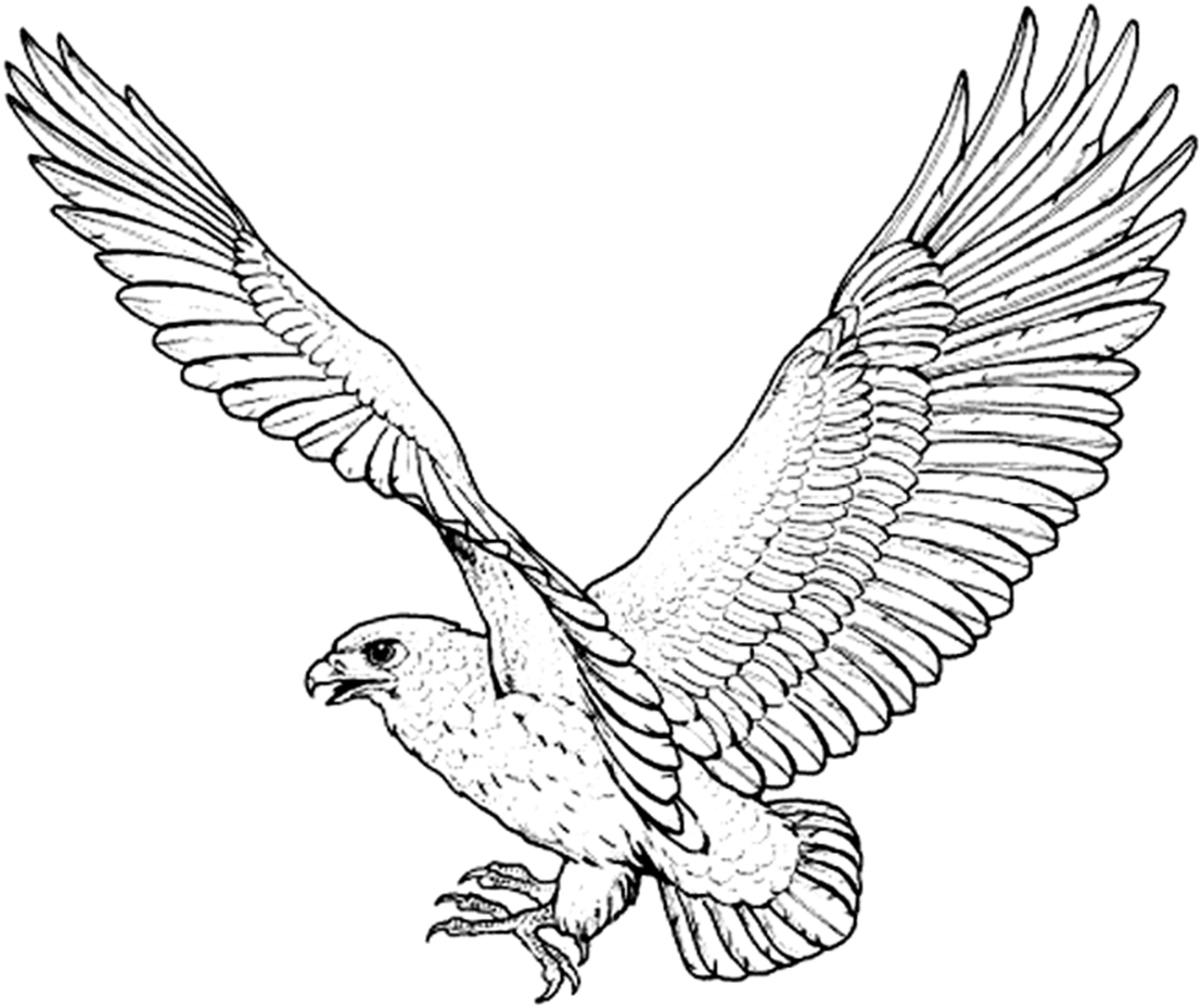


The California Mule Deer is a Zig-Zagger

A Gopher is a _____

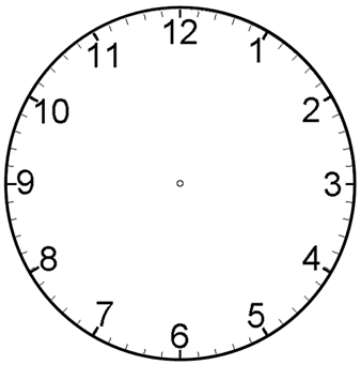
A Fox is a _____



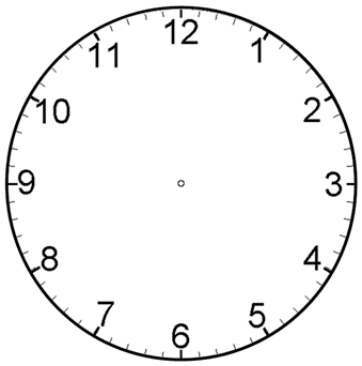


Adapted from: Backyard Nature

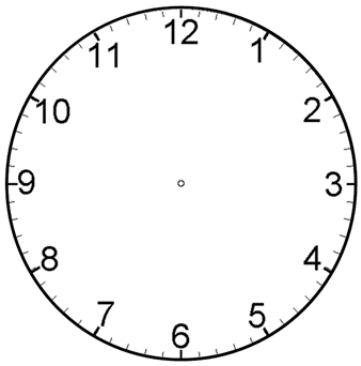
Squirrel Field Guide



Summer Morning



Summer Afternoon

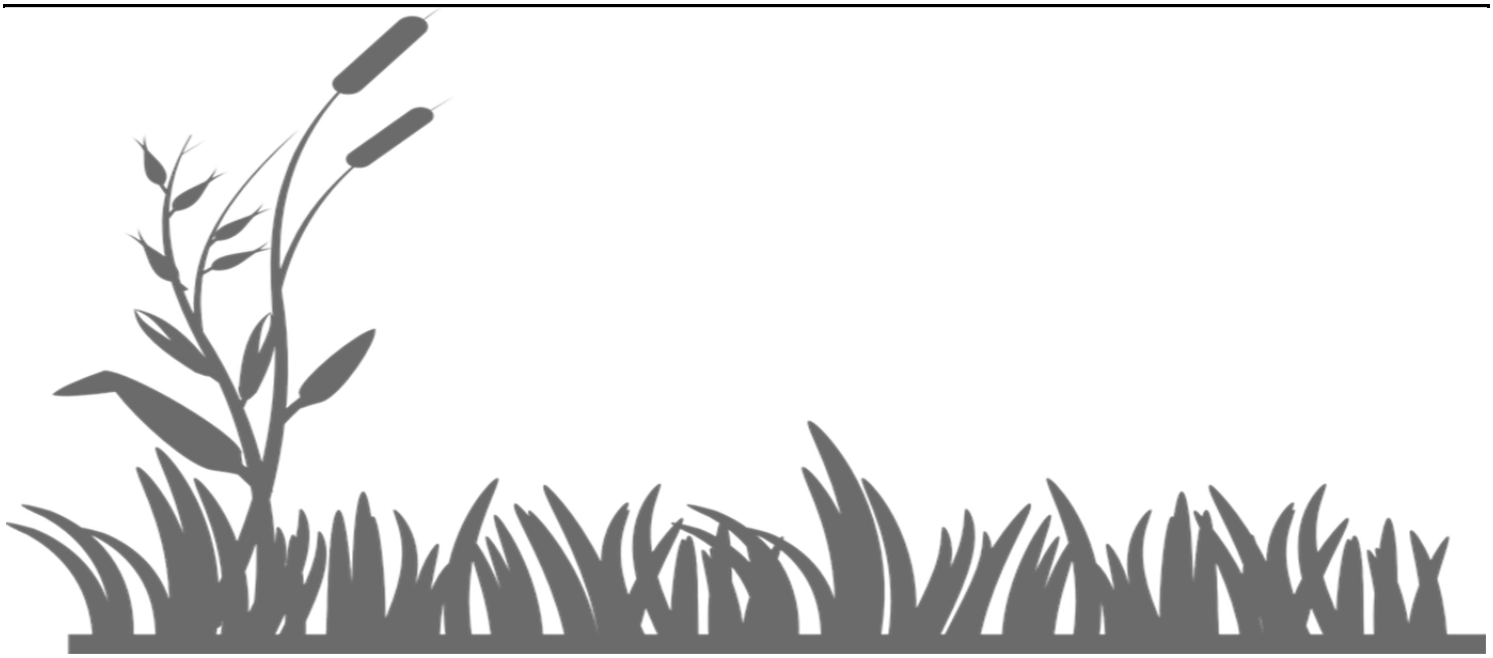


Winter Evening

How Do Different Body Features Help Squirrels Survive?

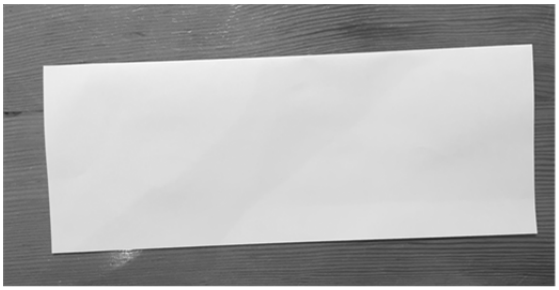
Adobe Springs Flora & Fauna

What was your favorite plant? Why? What was your favorite animal? Why?



Single Paper Book (Water Cycle Interactive Notebook)

1. Take one piece of construction paper and fold it horizontally ("hotdog" style).

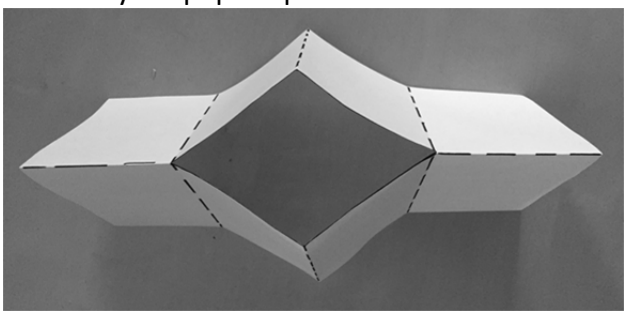


2. Then fold the half piece vertically.
3. Fold that piece again vertically.

4. You should end up with folds and eight of the same sized squares.

5. The next part is to cut along the solid black line. That is the only place you want to cut. The easiest way to do this is to fold your piece of paper in half vertically and cut the black line.

6. Stand your paper up like this:



7. Fold your paper like this

8. You have created your book!

Adapted from: Project WET: Curriculum and Activity Guide 2.0

Teacher Directions: Water Cycle Stations

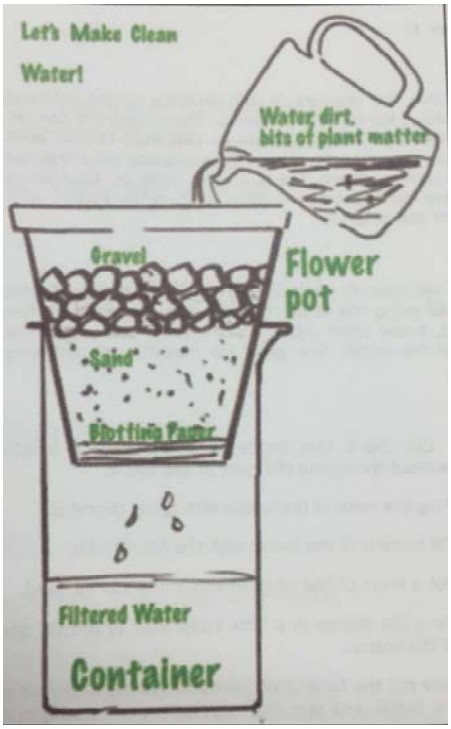
Given: Piece of yarn or other bracelet material with one yellow bead to represent the sun.

Stations/Beads:

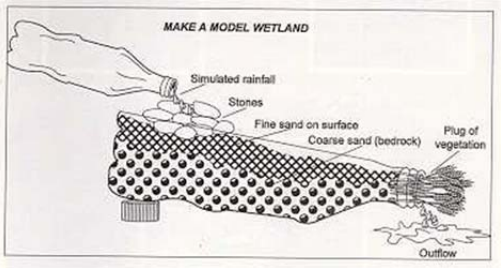
1. Condensation (clouds) – white
2. Precipitation (rain, hail, sleet, snow) - purple
3. Accumulation (ground water, ocean, lake, etc.) – blue
4. Soil - brown
5. Plants - green
6. Animals – orange
7. Evaporation - clear

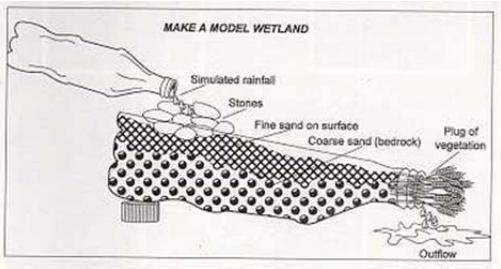
At each station, students will learn about each part of the water cycle from the following pages. They will read about how water is used and what is happening to it. Then they will add a bead to represent that piece of the water cycle to their bracelet.

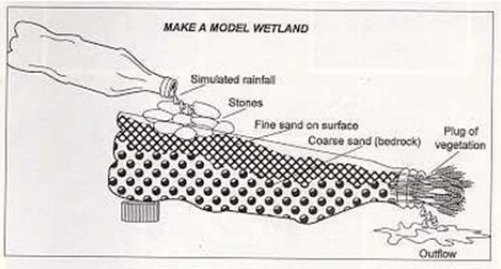
After the students have created their bracelets, ask the students who and what would use water from the Adobe Spring? Have them think about the Salinans, De Anza Party (their character), favorite plant, and animal they learned about in this unit.

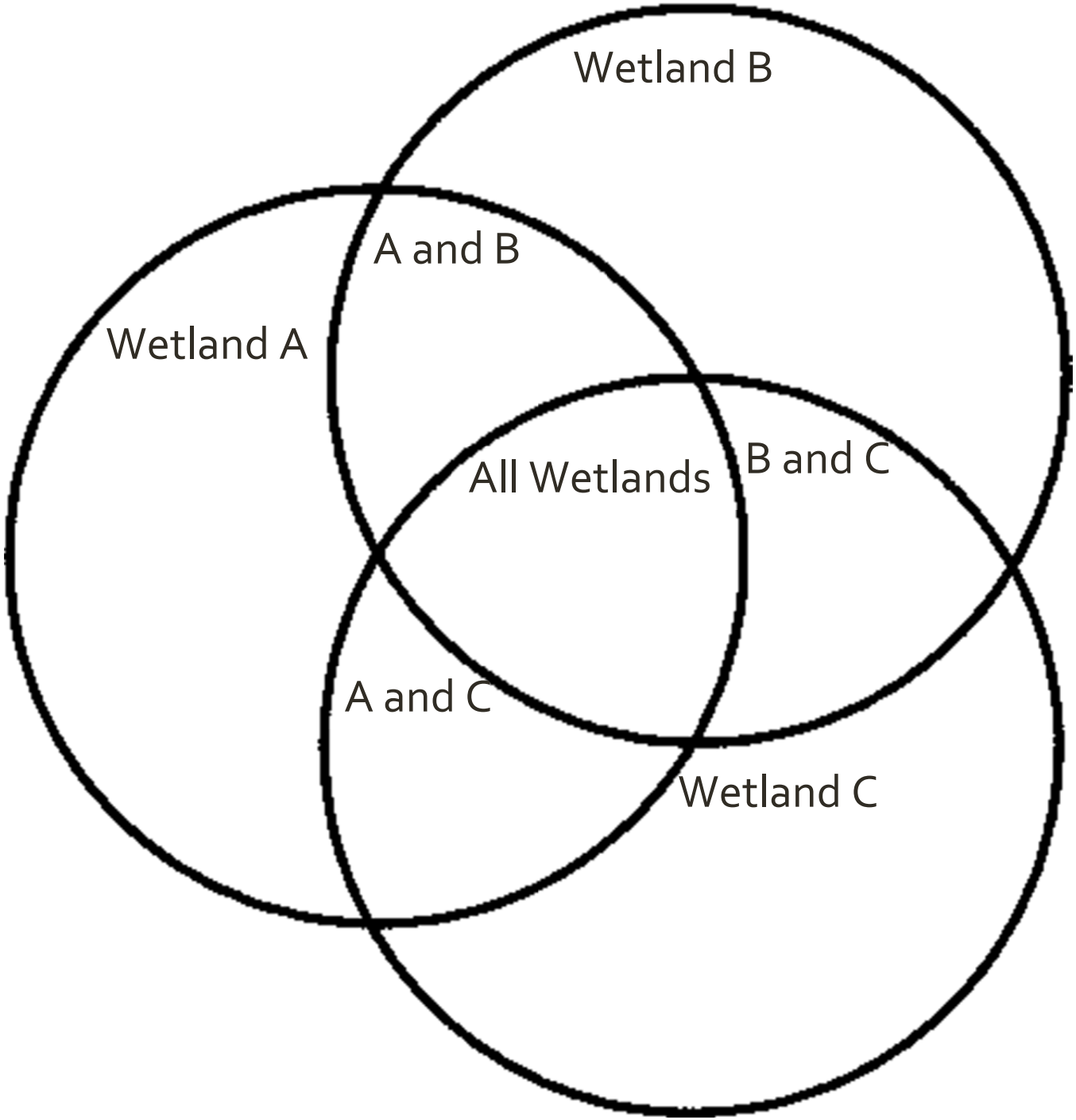

Let's Make Clean
Water!
Water dirt,
bits of plant matter
Gravel
Flower
pot
"Sand"
Blotting Paper
Filtered Water
Container

Adapted from: http://www.randwater.co.za/CorporateResponsibility/WWE/Pages/WetlandModel.aspx


MAKE A MODEL WETLAND
Simulated rainfall
Stones
Fine sand on surface
Coarse sand (bedrock)
Plug of vegetation
Outflow


MAKE A MODEL WETLAND
Simulated rainfall
Stones
Fine sand on surface
Coarse sand (bedrock)
Plug of vegetation
Outflow


MAKE A MODEL WETLAND
Simulated rainfall
Stones
Fine sand on surface
Coarse sand (bedrock)
Plug of vegetation
Outflow


Wetland B
A and B
Wetland A
All Wetlands
B and C
A and C
Wetland C

I Found Adobe Springs!

What did you see? What was most interesting about the Spring? What was unexpected?

This is what Adobe Springs looks like!

Backyard Nature. (n.d.). Squirrel Field Guide. Retrieved from: http://www.backyardnature.com/cgi-bin/gt/tpl.h,content=473

Boule, M. N. (1992). California Native American Tribes: Salinan Tribe. Vashon, WA: Merryant Publishing.

Brusa, B. W. (1975) *Salinan Indians of California and their neighbors.* Happy Camp, CA: Naturegraph Publishers, Inc.

California Department of Parks and Recreation. (n.d.). *California Indians Language Groups.* Retrieved from: *http://www.parks.ca.gov/?page_id=23548*

eHow Contributor. (n.d.). How to Make Adobe Bricks. Retrieved from: http://www.ehow.com/how_2042553_make-adobe-bricks.html

Hawkins, D. (2010). *Free Paper Doll Template*. Housewife Eclectic. Retrieved from: http://www.housewifeeclectic.com/2010/02/free-paper-doll-template.html

Kaplan, M. (2004). *Classroom Camouflage*. Herp Care Collection. Retrieved from: http://www.anapsid.org/pdf/camoflage.pdf

Nguyen, M. (2014). *Cup Weaving 2.0*. Art with Mrs. Nguyen. Retrieved from: http://www.artwithmrsnguyen.com/2014/02/cup-weaving-20-4th.html

Project WET Foundation (2014). *The Incredible Journey.* (3rd Edition). Project WET: Curriculum and Activity Guide 2.0. United States of America: The Watercourse/Project WET International Foundation and the Council for Environmental Education.

Project Wild. (2007). *Seed Need.* (Revised Edition). *Project Wild: K-12 Curriculum & Activity Guide*. Houston, TX: Council for Environmental Education.

Third Grade Standards

For more information on all of the standards for your grade level, please visit:
http://www.cde.ca.gov/be/st/ss/

Next Generation Science Standards (NGSS):

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AUSD Technology Standards

https://docs.google.com/document/d/1D0Ou1lMiMtje6Iqjn4HmHXdN0xro4IN2kG7Yp9X6myo/edit

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Native Americans—Salinans:

- California Indians Food & Culture: http://www.lessonsofourland.org/sites/default/files/CA%20food%20teaching_kit.pdf
- Earth Oven: http://www.texasbeyondhistory.net/bowie/middenwhat.html

Estrada Adobe

- *The Lands of Mission San Miguel* by Wallace Ohles
- For Kids: *Junior Scientists Experiment with Soil* by Vicky Franchino

Flora:

- e Meg Perry's page of recommendations

Fauna:

- Wild Tracks! A guide to Nature's Footprints
- How to Spot hawks and Eagles
- Who Eats What; food chains and food webs

Spring:

- Tracking trash; flotsam, jetsam, and the science of ocean motion
- *Spring Waters Gathering Places* by Sandra Chisholm DeYonge, Project Wet Foundation

Adobe Springs
Traffic Way
Traffic Way
Traffic Way
Traffic Way
Paseo Del Lago
Paseo Del Lago
Avenida Del Sol
Orillas Way
Orillas Way
Orillas Way
Del Rio Rd
Central Coast Motor Sports
Arizona Ave
Separado