



The Acequia Community Colorado's First Settlements Grades: 3-5

Acequias are intertwined with Colorado's agricultural history and tied to the original establishment of some of the state's oldest communities. Settled in the early 1800's, acequia communities in the United States began during the Spanish and Mexican colonial period. Acequias are canal-like structures used for irrigation. They were often the first structures to be collectively constructed along with churches or homes. Growing food was so important that digging out the acequia to bring water to crops was a priority.

Communities typically grew around an acequia, as neighbors understood the importance of sharing this water. Established more than 150 years ago, acequias remain vital to Southern Colorado's Hispano agriculture.

In these pages, grade 3-5 teachers will find lessons that help students understand how the early Hispano settlers came to settle Southern Colorado.

All lessons are tied to Colorado Content Standards.



The Acequia Community Colorado's First Settlements Grades: 3-5

These lessons are dedicated to the original Hispano settlers and their descendants who have worked to maintain their culturally significant acequia communities, as well as the organizations that help protect that heritage.

Sangre de Cristo Acequia Association
Land Rights Council
Hereadero's Grazing Association
Costilla County Conservancy District

This curriculum is made possible through funding by:

The History Colorado State Historical Fund
Costilla County Economic Development Council
Sangre de Cristo Heritage Center
Sangre de Cristo Acequia Association
Costilla County Conservancy District
and the
Colorado Water Conservation Board



The Acequia Community Colorado's First Settlements Grades: 3-5

Learner Outcomes

- Recognize that geographic tools represent places and space.
- Compare past and present situations and events.
- Recognize how members of a community rely on each other and interact to influence the development of communities.
- Observe the physical, cultural, and human-made characteristics of the acequia community.

Connections to 2020 Colorado State Standards

Social Studies

3rd Grade:	History - 1, Geography - 1, Economics - 3
4th Grade:	History - 2, Geography - 2, Economics - 3
5th Grade:	History - 2, Geography - 2, Economics - 3

The Program

This program includes three key components: storytelling, hands-on lessons, and the option of a field trip to visit the built historic landscape. While not all classes are able to visit the site, we hope that the visual and tactile experiences within these lessons help students develop an understanding of these Hispano settlements.



The Acequia Community *Colorado's First Settlements* *Grades: 3-5*

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Settling the Sangre de Cristo Land Grant

Lesson 1

Learner Outcomes:

- Distinguish between a map and a globe as ways to show places people live.
- Use geographic tools to describe places. For example: globes, maps.

Materials:

1. Globe
2. Balloon
3. Scissors
4. Markers
5. Rubber band
6. 8x10" Poster board
7. Continent shapes to cut out

Preparation:

Have a globe ready.

Gather materials: Balloon, scissors, marker, rubber band, continent cutouts and 8X10 posterboard for each student.

In addition to the globe, have the a world map available perhaps one per table group.

Have students sit in groups at their desks.
Give each group the supplies needed to create their own globe.

Introduction: A globe is a model of the Earth. We use a globe to locate and distinguish between land masses and water. Students need to be given concrete experiences so that they will see that globes and maps are only representations of much larger places. The equator is an imaginary line that divides the Northern Hemisphere from the Southern Hemisphere.

Activity Procedures: Lead discussion distinguishing land masses from water on Earth using a globe. Give balloons to students and have them blow them up and tie a knot to ensure that they maintain their shape. Tell students that the knot is the South Pole. Have students draw a small X at the top of the balloon with a marker. Tell the students the X is the North Pole. Let students put rubber bands on the balloon around the mid-section. Trace around balloon at the rubber band with marker. When dry, remove rubber band.

Have students compare their balloon to the globe and discuss Northern Hemisphere and Southern Hemisphere. Discuss the location of the continents using the equator as a guide. Which continents are above the equator? Which are below the equator? Which continents does the equator run through? Using the class room globe or world map included with this lesson as an example, have students trace the Antarctica shape first. Then let students trace the other continents onto the balloon using the equator again as guide for continent placement. Instruct students to slip the knot of the balloon through an X cut in an 8x10" piece of poster board. The balloon globe should stand by itself, but if it doesn't or slips through, tape balloon tail underneath poster board. Trace continents in this order to make it easier: South America, North America, Africa, Europe, Asia and Australia.

Time: 35 minutes

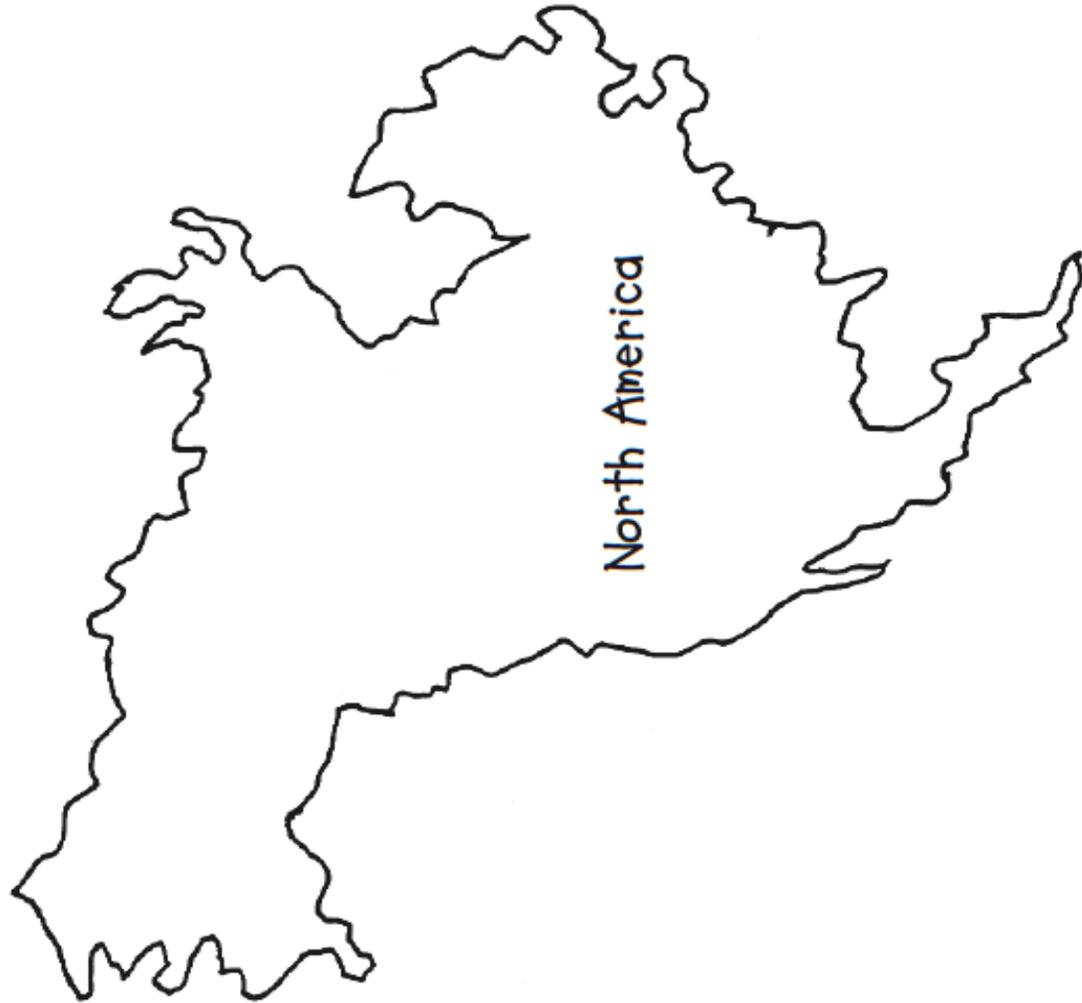
Location: Indoors



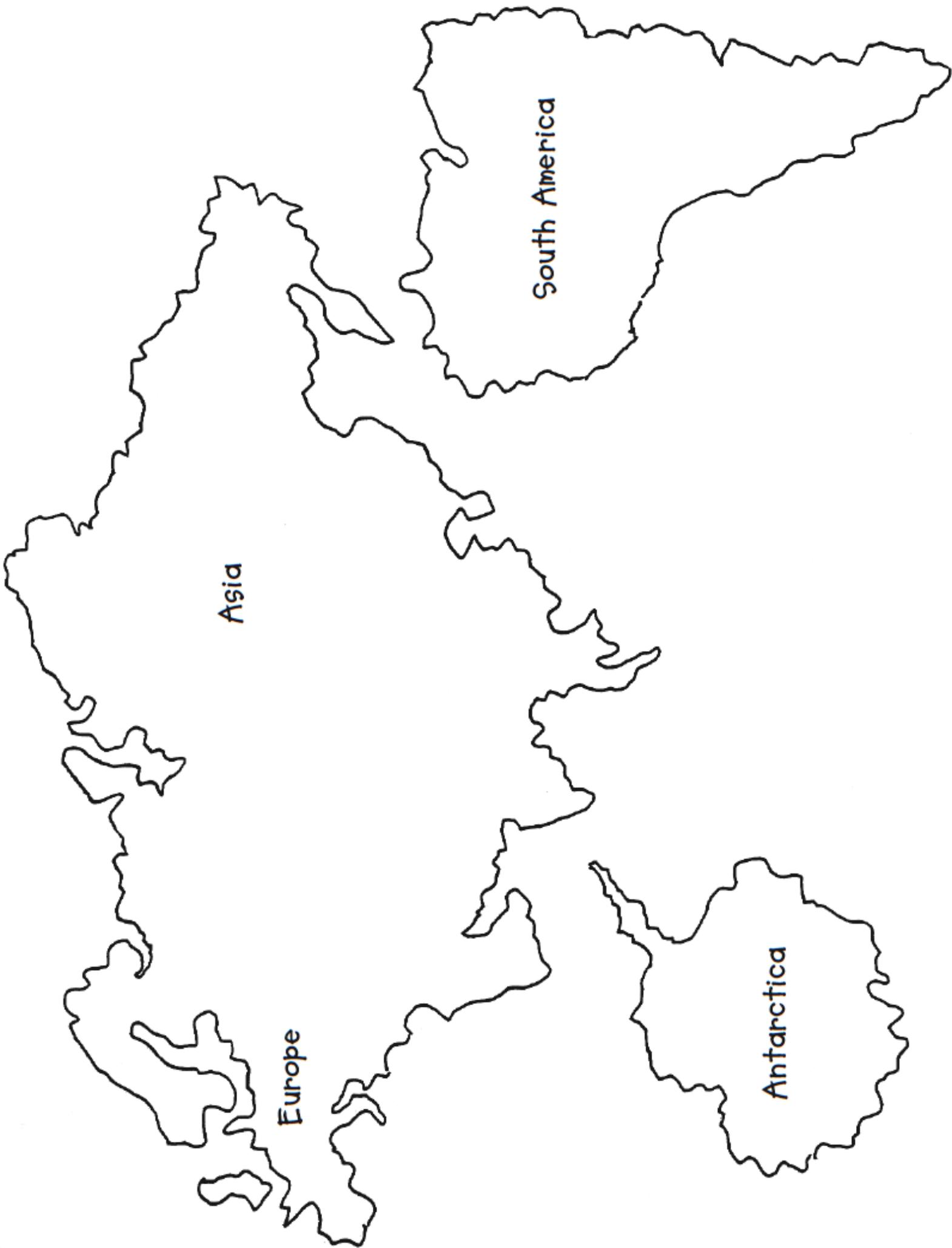
Africa



Australia



North America



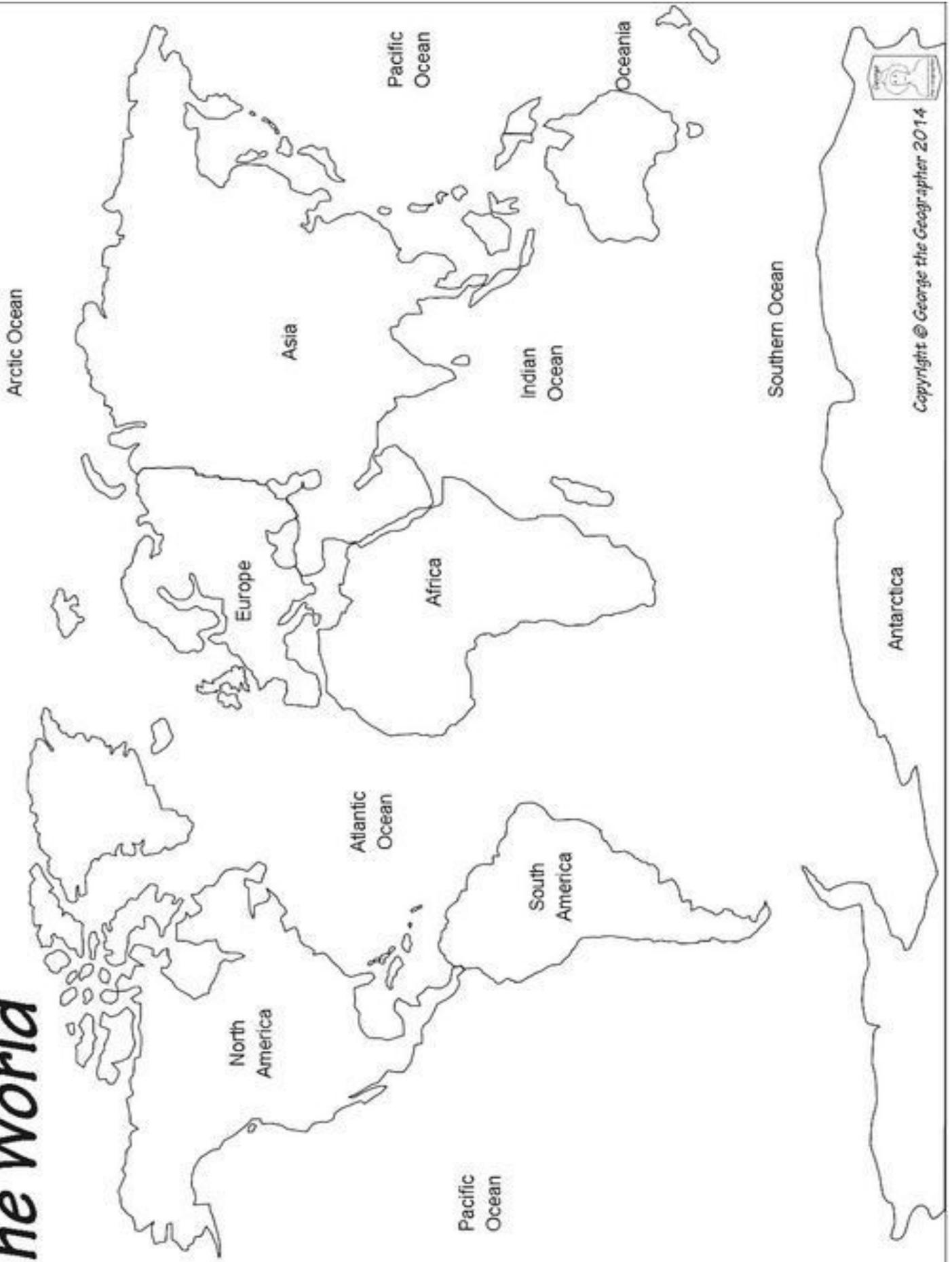
Asia

South America

Europe

Antarctica

The World



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Discovery Center

Settling the Sangre de Cristo Land Grant

Lesson 2

Learner Outcomes:

- Distinguish between a map and a globe as ways to show places people live.
- Use geographic tools to describe places. For example: globes, maps.
- Students will understand the differences between people who lived a long time ago and their lives now.
- Students will understand that when people build a community, they use resources that they find in nature. This includes wood, water, and clay.
- Students will understand that a land grant was an early land transaction that gave land to an organization or group of people.
- Students can explain why the order of events is important.

Materials:

1. Globe
2. Map of the United States
3. Map of Colorado
4. Map of the Sangre de Cristo Land Grant

Preparation:

Have materials ready then have students sit in a reading circle to begin the story and discussion.

Introduction: In this lesson, students will learn about the Sangre de Cristo Land Grant and how it helped settle early Southern Colorado. Begin by showing students the map of the U.S. Have them outline a U.S. on their balloon globes. Using the map of the United States, show the students where Colorado is located and have them draw Colorado on their globes. Develop a classroom discussion around the different people that live on Earth and the customs, arts, social institutions, and achievements they each have. From that map point out the location of the Sangre de Cristo Land Grant. Explain that they will be learning about the Sangre de Cristo Land Grant today.

Activity: Ask students to imagine that they were there when the land grant was first settled by Euroamericans over 150 years ago. What would it look like? What would you want to make sure was there so you and your family would survive in the isolated area of the Sangre de Cristo Land Grant? This should include things like water, wood to build a shelter, food, etc. Begin by explaining that towns did not always look the way they do now — once it was just wilderness all people, Native and Euroamericans, had to come in and build the things they needed for their families to survive. Use the attached pictures to illustrate.

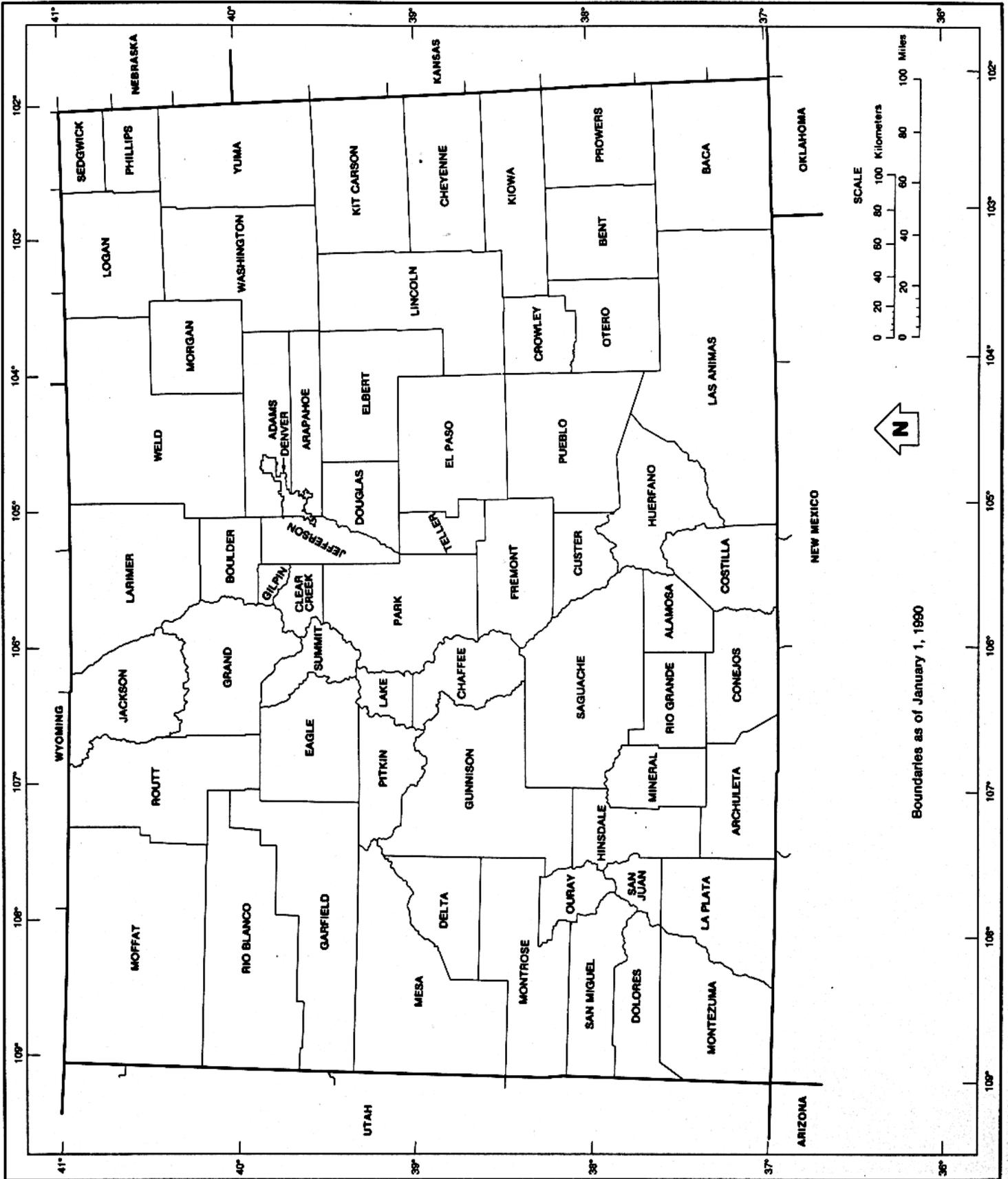
After the discussion, read the story of the land grant settlement. As you read stop from time to time to ask students:

- What were the resources the settlers were looking for to ensure that they could live in this new area?
- Who were the people involved and what was their culture?
- What things did the settlers need to settle this land and build their communities?

Time: 45 minutes

Location: Indoors

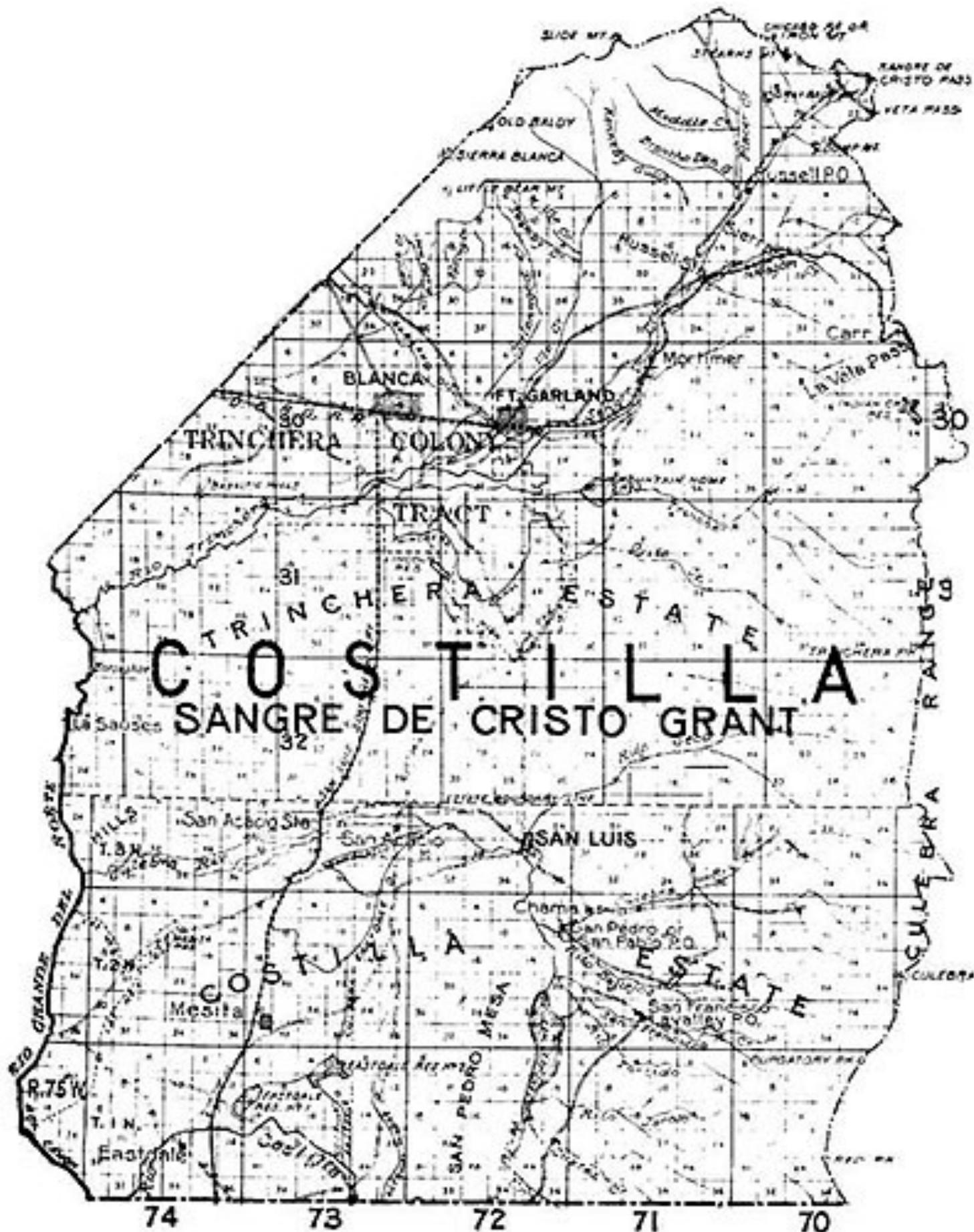
Counties



U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration Bureau of the Census

MAPS

COLORADO G-1





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Settling Sangre de Cristo Land Grant





The Story of the Sangre de Cristo Land Grant

The Story of the Sangre de Cristo Land Grant

Today we are going to learn about The Sangre de Cristo Land Grant. The Sangre de Cristo Land Grant is a piece of land in southern Colorado that was settled by members of the Hispanic community.

A long time ago, people had to build their homes and communities from things they found in nature. To do this, people often had to risk their lives and those of their families. They faced bad weather that would bring big storms with snow or rain. They had to be careful because there were wild animals and rough mountain passes that they had to cross.

The people needed a leader to help guide them. A leader is a person who guides a group and helps keep them safe. In the days of the land grant, the people chose a leader that they believed could get them through these dangers. His name was Carlos Beaubien. Beaubien was a trapper and a good leader! In 1833 and again in 1843, Mexico officially granted land in the San Luis Valley to Carlos Beaubien. Settlers for the Sangre de Cristo Grant were recruited under the direction of Carlos Beaubien, owner of the land grant.

The settlers liked him and his love of their traditions. The tradition the people valued the most was a community that shared resources. They knew that if they shared the things they had, the whole community benefited. Together they developed homesteads and a place for all of their animals to graze. Together they gathered wood for building, and to make fires to keep them warm. Finally, they shared the land that had a river so the people and animals would have water to drink, and so they could water their crops. The name of this place was the Sangre de Cristo Land Grant.

These early settlers built small log and adobe mud houses. They kept chickens, sheep, and cattle for food, and also grew gardens because there were no stores to buy food at the time. They grew beans, corn, peas, and squash. They irrigated their fields using hand-dug ditches called acequias (ah-sek-ee-uhs) to carry water from the stream to their fields and homes. The word Acequia (ah-sek-ee-uh) comes from the Arabic language and means "that which gives water." Acequias are ditches that allow water to be conveyed from a creek or river to homesteads and agricultural fields. The most robust acequia community in Colorado is near the town of San Luis, Colorado. There are 76 working acequias that support over 300 families, most of whom are descendants of the original land grant settlers. Most of these acequia farms and ranches operate as they did when they were originally settled growing heritage crops or raising livestock that are grazed on acequia-fed wet meadows. The acequia is a shared water source that gives each community member enough water for their family, animals and crops. This was really important during dry years when the amount of available water was far less than they were used to using.

Children on the acequia homestead would help with the chores. They did things like feed the farm animals, carry in the firewood, and help wash the dishes after each meal. When they played, they pretended they were different people, or played games like hide and seek and tag. They grew up to be farmers and ranchers who loved the wide open spaces of the land grant and everything that it gave them. These land grant villages are still often occupied by the descendants of those original settlers and their children.



Photo Courtesy of [www.https://i2.wp.com/adamjamesjones.com/wp-content/uploads/2012/05/memorias_beaubien1.jpg](https://i2.wp.com/adamjamesjones.com/wp-content/uploads/2012/05/memorias_beaubien1.jpg)



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Settling Sangre de Cristo Land Grant

Lesson 3

Learner Outcomes:

- Distinguish between a map and a globe as ways to show places people live.
- Use geographic tools to describe places. For example: globes, maps.
- Students will understand the differences between people who lived a long time ago and their lives now.
- Students will understand that when people build a community they use resources that they find in nature. This includes wood, water, and clay.
- Students will understand that a land grant was an early land transaction that gave land to an organization or group of people.
- Students can explain why the order of events is important.

Materials:

1. Poster board/butcher paper
2. Crayons, colored pencils, markers
3. Journal or notebook paper

Preparation:

Have poster/butcher paper for each student group.

Activity: It is preferable to have 3-4 students per center. Begin by having students work in their group and list the items they need to have in their community for them to survive. They should list things like water, land to graze their livestock, wood, etc.

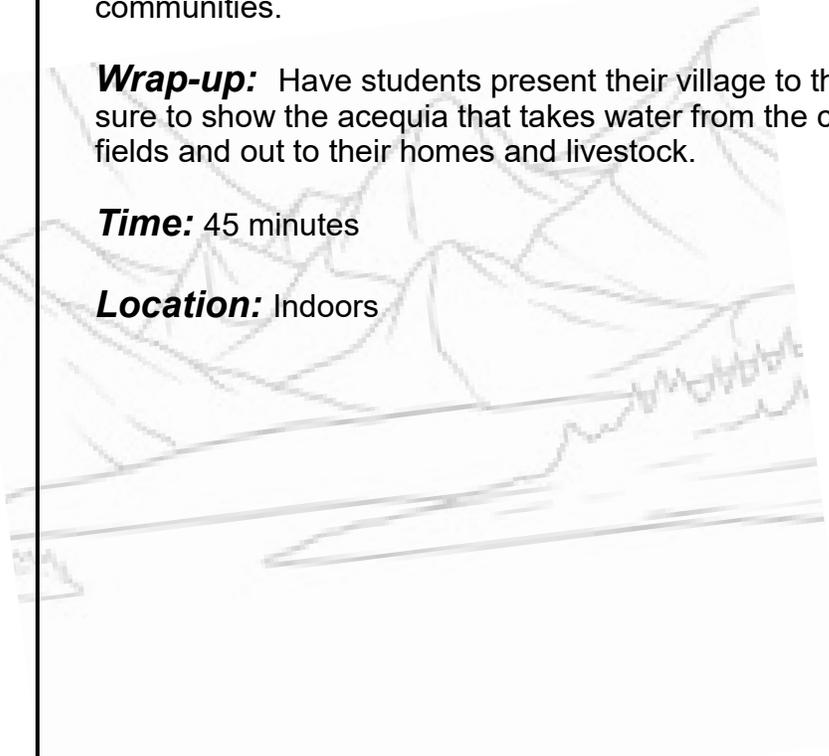
Once they have agreed on their list of needs, have students begin to draw their settlements making sure each student has a homestead in their drawing. Once complete, have the group name their village.

Conclusion: Students should be able to understand what the early settlers needed to live in the early days of the land grant settlements and how they used the landscape resources to build their communities.

Wrap-up: Have students present their village to the class making sure to show the acequia that takes water from the creek to their fields and out to their homes and livestock.

Time: 45 minutes

Location: Indoors





Discovery Center

Acequias– A lesson in sharing water

Learner Outcomes:

- Students can explain how people in the past influenced the development and interaction of different communities or regions.
- Students can explain how connections are developed within and across human and physical systems.
- Students can explain why the order of events is important.

Materials

1. 6 large bowls or 1 bowl for each student group.
2. Enough dry pinto beans/ goldfish crackers or other small object to fill each groups bowl.
3. One plastic spoon for each student

Preparation:

Have students sit in a reading circle to discuss what an acequia is and why it is important to the community.

Fill each bowl with dry pinto beans/goldfish crackers or other small object . Gather one plastic spoon per student participant.

Once the discussion is complete separate students into three groups that will work together during the relay.

Introduction: The acequia is a shared water source that gives each community member enough water for their family, animals and crops. This was really important during dry years when the amount of available water was far less than they were used to using.

Activity: This activity breaks students into three groups to go through three years of water on the acequia. The first relay is **Abundance**. During this relay, it is a great water year and students are given the opportunity to take as much water (beans or goldfish crackers) from a large bowl as they can carry in their spoon, back to their community bucket.

The second relay is **Scarcity**, which means it has not been a great water year for the acequia community. In this relay students can only take one item in their spoon back to their community bucket.

The final relay is **Drought**, and represents a drought year, so there is no water in the acequia. So students need to take water from their community bucket and put it back in the river (large bowl on the other side of the room).

Line students up in three rows make sure each student has a spoon. They need to line up with their group. The first student will go down get their water (bean or goldfish cracker) in their spoon. Once they get back to their group the next student can go and so on.

Review the rules with students and say that anyone who doesn't follow the rules will have to put all of the water in their community bucket back into the bowl on the other side of the room and start over.

Line students up and let them know that when you say "Abundance" they can take all of the items they can fit in their spoon. When they hear "Scarcity" they can only take one item from the bucket back to their community bucket. If you say "Drought" they have to take one item back to the stream. Run each relay a few times and not necessarily in order.



Discovery Center

Acequias- A lesson in sharing water

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- Students can explain how people in the past influenced the development and interaction of different communities or regions.
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- Students can explain why the order of events is important.

Materials:

1. 6 large bowls or 1 bowl for each student group.
2. Enough dry pinto beans/ goldfish crackers or other small object to fill each groups bowl.
3. One plastic spoon for each student

Preparation:

Have students sit in a reading circle to discuss what an acequia is and why it is important to the community.

Fill each bowl with dry pinto beans/goldfish crackers or other small object . Gather one plastic spoon per student participant.

Once the discussion is complete separate students into three groups that will work together during the relay.

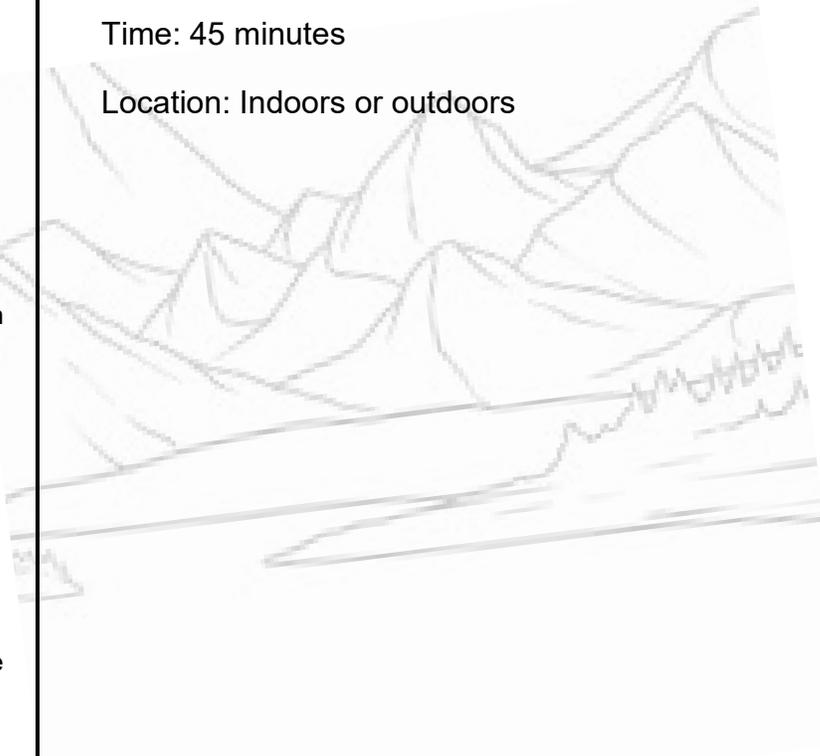
To wrap up the activity have each group show how much water is in each bucket. Was any bucket empty? Did every community have water? How is this activity like sharing water on an acequia? This should demonstrate that when we work together to share resources everyone has something and our community is better.

To wrap up, watch a video about “Fina” a young girl whose family lives on an acequia today.

<https://vimeo.com/366326367/2680c997e8>

Time: 45 minutes

Location: Indoors or outdoors





Discovery Center

River Legends— Writing the Legend of the Culebra River

Learner Outcomes:

- Students can explain how people in the past influenced the development and interaction of different communities or regions.
- Students can explain how connections are developed within and across human and physical systems.
- Students can explain why the order of events is important.

Materials:

1. Plain white paper for illustrations
2. Notebook paper

Preparation:

Have students sit in a reading circle to begin the story and discussion. Then they can move to their desk to write and illustrate.

Introduction: Colorado is a headwaters state, which means no water flows into Colorado's boundaries. Colorado has five major rivers that begin here and flow out. They include the Colorado River whose waters begin in our mountains and flow through the states of Utah, Arizona, California, and to the country of Mexico. The Colorado River is the waterway that formed the beautiful Grand Canyon. Next are the North and South Platte Rivers, which headwater in the northern part of the state and ultimately make up the waters of the Missouri River. The Upper and Lower Arkansas Rivers join and flow to the southeastern part of the state, making up the mighty Mississippi. Finally, there is the Rio Grande River which has its origins high in the mountains above Creede, Colorado, on the Continental Divide. The Rio Grande's waters are shared by the states of Colorado, New Mexico, Texas, and the country of Mexico.

Rivers are the lifelines of Colorado's economy, environment, and lifestyle. They touch everyone in our state, providing most of our clean, safe, and reliable drinking water; supporting our thriving farms and ranches; and contributing to culture, heritage, and recreation — everything from world-class fishing to paddling. The state's rivers also support our beautiful scenery drawing visitors from around the world.

One of the rivers that support the acequias is the Culebra River. It begins high on the 14,000-foot Culebra Peak. The river carries water from snow melt and flows down the slopes to the acequia communities.

Activity: In this activity students will take what they have learned about the land grants, acequias, and the communities they support and write the legend of the Culebra River. Explain that a legend is a story handed down by tradition from earlier times and popularly accepted as historical. Their legend should describe how the Hispano settlers came to the Culebra Valley and settled it with their families.

Students should also illustrate their legend with scenes of land grant settlements and the acequias that run through them. Have students volunteer to read their completed legends to the class.

Time: 2—45 minute class periods.



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Centennial Farms and Ranches - The Rio Culebra Ranch

Time: 2–45 minute
Class periods.

Location: Indoors/
outdoors

Learner Outcomes:

- Students can explain how people in the past influenced the development and interaction of different communities or regions.
- Students can explain how connections are developed within and across human and physical systems.
- Students can explain why the order of events is important.

Materials

1. Plain white paper for illustrations
2. Notebook paper

Preparation:

Have students sit in a reading circle to begin the story and discussion. Then they can move to their desk to write and illustrate.

Introduction: The harsh winter conditions at 8,000 feet in elevation were cold and wet, so settlers had to build shelters for themselves and their domestic animals.

Dwellings were built from vertical wood poles and horizontal logs, adobe, and stone. These buildings served as early homes for the inhabitants. Each of the Hispano farms exhibit a variety of buildings and associated structures such as irrigation structures, called compuertas. Secondary structures such as sheds, barns, and corrals supplemented the various agricultural functions of the farmsteads. Although many of the buildings have been maintained, a good number of others have suffered deterioration, and have been demolished and replaced with modern ones constructed of industrially-produced materials such as milled lumber, steel, and brick. The picture on page 17 can be used to help students orient the items in the story.

Take the time to read the students the history of the Rio Culebra Ranch. After the story discuss how things were different in the early days of the land grant settlement, and how they are the same.

History Of the Rio Culebra Ranch

The Rio Culebra Ranch was established in 1863 by Blas and Ygnacia Olivas. The family came north from Santa Cruz, New Mexico to settle on the Sangre de Cristo Land Grant. Located just east of the town of San Luis, the oldest town in Colorado, the Rio Culebra Ranch is still a working cattle ranch and has the honor of being one Colorado's Centennial Ranches. This distinction is only awarded to those ranches that have been continuously operated by the same family for over 100 years.

When Blas Olivas settled in the Culebra valley, it still belonged to Mexico. In an effort to encourage settlers to stay in this rugged land, the settlers were promised that they would have access to the creek for water, the uplands for grazing cattle, and the rich forests for wood that surrounded the area.



Photo from the National Trust for Historic Preservation—[www.https://savingplaces.org/stories/sangre-de-cristo#.YQb19Y5KhPY](https://savingplaces.org/stories/sangre-de-cristo#.YQb19Y5KhPY)



Costilla County Homestead 1858 Photo Courtesy of the Latino Project—[www.https://latinohistoryproject.org/item/old-adobe-house/](https://latinohistoryproject.org/item/old-adobe-house/)



Discovery Center

Centennial Farms and Ranches - The Rio Culebra Ranch

Time: 2–45 minute
Class periods.

Location: Indoors/
outdoors

Learner Outcomes:

- Students can explain how people in the past influenced the development and interaction of different communities or regions.
- Students can explain how connections are developed within and across human and physical systems.
- Students can explain why the order of events is important.

Materials

1. Plain white paper for illustrations
2. Notebook paper

Preparation:

Have students sit in a reading circle to begin the story and discussion. Then they can move to their desk to write and illustrate.

The settlers worked together and divided the land into “extenciones.” These long narrow strips of land were measured in “varas.” A vara is 33 inches wide, and the Rio Culebra Ranch extencione was 480 varas, or 1,300 feet wide and two miles long. The ranch had good grass, cottonwood-lined bottom ground, and water from the Culebra River. The ranch is irrigated by the San Pedro acequia, one of the oldest water rights that was adjudicated before Colorado became a state, giving the ranch the ability to irrigate first.

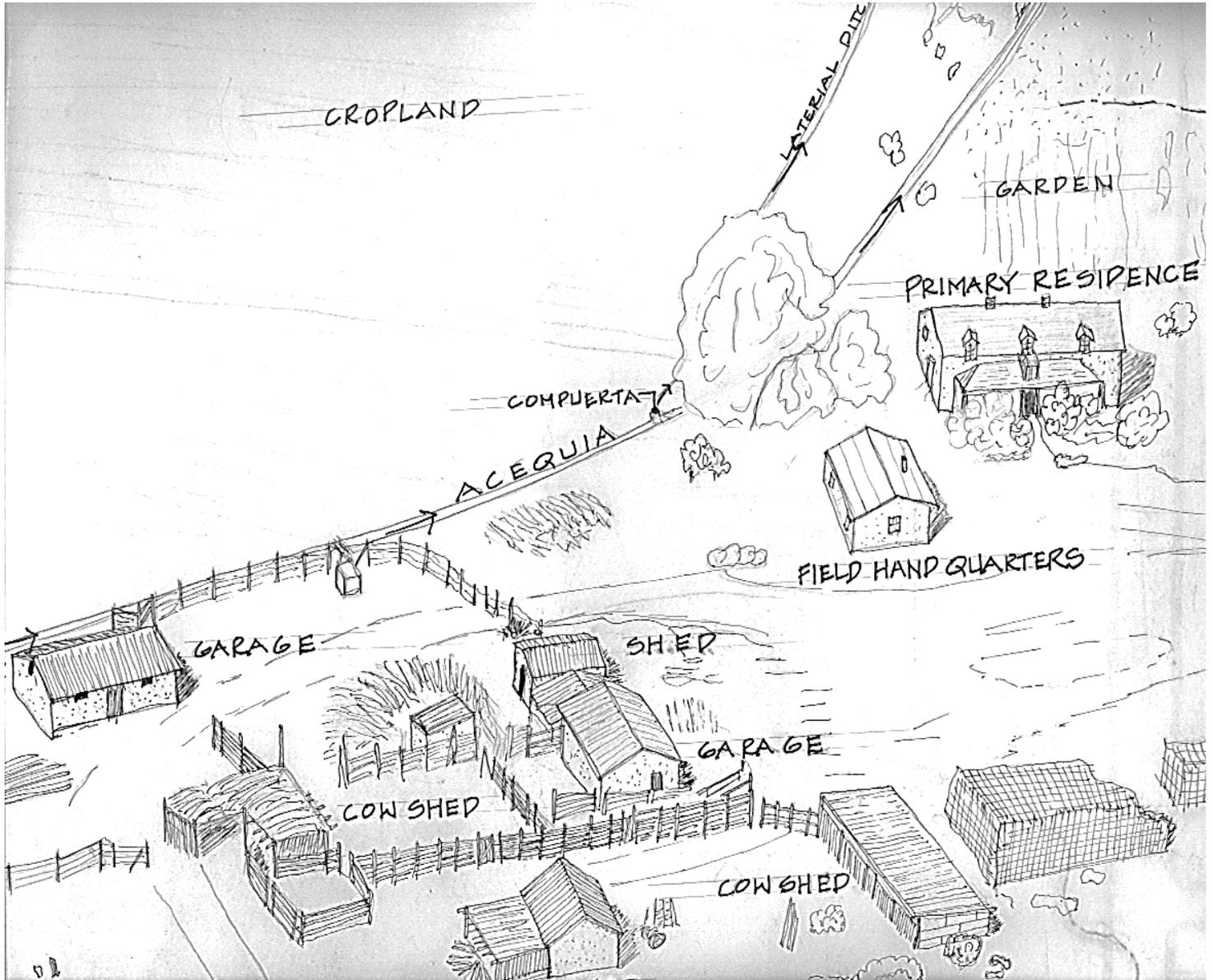
Today the ranch is operated by Earl and Eric Valdez. Their mother Maria (Ida) grew up on the ranch and is the granddaughter of Candido Olivas, one of Blas and Ygnacia’s seven children. Even with the ranch’s rich history, life in the Culebra Valley is harsh, with winter days that often remain below zero degrees. This 8,000-foot valley also has a short growing season. In the early days, the family raised sheep and grew crops including corn, cabbage, cauliflower, potatoes, field peas, and strawberries, which were sold at the train stop in San Acacio to be taken to market. They also lived off of the family garden which grew lettuce, radishes, and carrots. These were not sold, but traded between family members from New Mexico for fruits. They had no electricity or running water, and the children would walk to school— even in the winter! The family matriarch remembers that “hardships weren’t hard - they were just how we lived. We were with our family and we were loved.”

The family began to raise cattle in the 1940’s. The cattle raised in this area had to be hardy, to survive being born in February and March at the height of winter. The family remains here for the long haul and is devoted to keeping the ranch working.



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Centennial Farms and Ranches - The Rjo Culebra Ranch



Drawing Courtesy of Dr's Arnie and Maria Valdez Lifelong acequia community members



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Centennial Farms and Ranches - The Rio Culebra Ranch

Time: 2–45 minute
Class periods.

Location: Indoors/
outdoors

Learner Outcomes:

- Students can explain how people in the past influenced the development and interaction of different communities or regions.
- Students can explain how connections are developed within and across human and physical systems.
- Students can explain why the order of events is important.

Materials

1. Plain white paper for student illustrations
2. Notebook paper
3. Copy of attached word search for each student or group.

Preparation:

Have students sit in a reading circle to begin the story and discussion. Then they can move to their desk to illustrate and write a narration for the one scene from the story that stands out to them. To wrap up have students complete the words search.

The family is proud to play a part in keeping the ranching tradition alive, and while they still live in the original homestead, the home has been renovated and expanded beyond the original four-room adobe house that Ida Valdez grew up in. When you go inside, the 15-inch walls are still visible. The family is looking to the fifth generation to not just carry on the ranch but to learn the lessons that the ranch teaches you. As Earl Valdez would say, those are the “best memories.”

Activity: After reading the Rio Culebra Ranch history, have students call out key events that they remember and list them on the board. When the list is complete have students help you get events in the correct order. Explain that all stories have an order—beginning and end. Have students move to their desks and choose one scene from the story to illustrate. Once their illustration is complete have them describe the scene. As a wrap up, have students do the word search either independently or as a group.



The Valdez Centennial Ranch today. Photo courtesy of Colorado Open Lands



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Centennial Farms and Ranches - The Rio Culebra Ranch

Centennial Ranch Word Search

P R L S Q V S X I V K X Q N U Z H O B T
 N B G C B G H L E D C Q R A C E Q U I A
 C Z V R A M K E V X P O N Q W L S R A Q
 W D P A A T L P Q N T P Q B X H J V U Y
 K N A C R Z T N F I L E G V U K W S L B
 F J C S E A I L I Y C R N T H B S M C G
 G V Z V F N L N E C Y R Q C I I O C W E
 N E A F B N T O G D S O U P I Y P U S X
 I J N Z H U C E G X V K T X W O N V P T
 W R A E G T T L N S N V D V R M N L X J
 L A R Z R E W U A N Z I Z A P M Q E G L
 I U O I J A E X M N I T V D S Y Y J G A
 P T R G G W T C F W D A X J M E K B M D
 J V I J M A X I Y U D G L A S X E D K O
 L M E S Q G T I O X A P R R M T Y V Q B
 M H X V X K S I A N H S R A A Q O E I E
 V S G D V T M D O Z S S E E N N L N B R
 S I M W T Z V S M N C X D K N T C U E L
 S Y T L S X V N T S X W B G P L F H A Z
 A E K C O L O R A D O T Y X R M U G D P

centennial ranch

generations

irrigation

extencione

land grant

colorado

grazing

cattle

acequia

adobe

stone

logs

vara



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Centennial Farms and Ranches - The Rio Culebra Ranch

Centennial Ranch Word Search Answer Key

P R L S Q V S X I V K X Q N U Z H O B T
 N B G C B G H L E D C Q R A C E Q U I A
 C Z V R A M K E V X P O N Q W L S R A Q
 W D F A A T L P O N T P Q B X H J V U Y
 K N A C R Z T N F I L E G V U K W S L B
 F J C S E A I L I Y C R N T H B S M C G
 G V Z V F N L N E C Y R Q C I I O C W E
 N E A F B N T O G D S O U P I Y P U S X
 I J N Z H U C E G X V K T X W O N V P T
 W R A E G T T L N S N V D V R M N L X J
 L A R Z R E W U A N Z I Z A P M Q B G L
 I U O I J A E X M N I T V D S Y Y J G A
 P T R G G W T C F W D A X J M E K B M D
 J V I J M A X I Y U D G L A S X E D K O
 L M E S Q G T I O X A P R R M T Y V Q B
 M H X V X K S I A N H S R A A O O E I E
 V S G D V T M D O Z S S E E N N L N B R
 S I M W T Z V S M N C X D K N T C U E L
 S Y T L S X V N T S X W B G P L F H A Z
 A E K C O L O R A D O T Y X R M U G D P

centennial ranch
 land grant
 acequia
 vara

generations
 colorado
 adobe

irrigation
 grazing
 stone

extencione
 cattle
 logs



Discovery Center

Building an Acequia Community— A Web of Life

Time: 45 minutes

Location: Indoors or outdoors

Learner Outcomes:

- Students can explain the historical context of key people, events, and ideas over time including the examination of different perspectives from people involved.
- Classify and analyze the types of human and geographic connections between places.
- Students will recognize people in communities manage and build using resources in their environment.
- Examine the characteristics of places and regions, and the changing nature among geographic and human interactions.

Materials:

1. Note Cards
2. Colored pencils, markers
3. Yarn
4. Student Journals

Preparation:

Prepare and cut the cards out and roll yarn into a ball.

Introduction:

The word acequia (ah-sek-ee-uh) comes from the Arabic language and means “that which gives water.” Acequias are earthen ditches that allow water to be conveyed from a creek or river to homesteads and agricultural fields. The most robust acequia community in Colorado is near the Town of San Luis. There are 76 working acequias that support over 300 families, most of whom are descendants of the original land grant settlers. Most of these acequia farms and ranches operate as they did when they were originally settled, growing heritage crops or raising livestock that graze on acequia-fed wet meadows. Acequia irrigation is different than most irrigation ditches because the people on a given acequia share the water equally. So in great water years everyone gets a share of 100% of the water, while in drought years they equally share the small amount of available water—giving everyone a little bit. Most other irrigation ditches are operated by a ditch company, and landowners buy the water that they can afford, giving folks with the capability to purchase water shares more say in the operation, and more water.

The acequia community not only shares their water, but also shares many aspects of the natural community. This includes cows and sheep that graze common meadows, gardens that grow heritage crops like bolita beans, chicos (small roasted corn) and field peas. They share the mountain track where they gather wood for fires and for building structures. They hunt local wildlife like deer, elk, antelope, rabbits, and turkey for food. They also help each other build houses, barns, and corrals and the attend church together.

Activity:

In this activity, make the description cards from the list on page 25. One word should be written on each card. These can be made ahead of time or students can make them. Once complete mix them up, and place them upside down on the table. Have students take the cards and distribute until there are no cards remaining on the table (students can have multiple cards). Gather in a large circle and have the students hold their cards for others to see. Then using the ball of yarn, they must toss the yarn to a corresponding resource, holding onto the end. (Example: If you are a cow you might toss the yarn to an acequia—your water source.) Continue until everyone has attached their resource to another resource in the group. You will have a large web between students.



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- Students will recognize people in communities manage and build using resources in their environment.
- Examine the characteristics of places and regions, and the changing nature among geographic and human interactions.

Materials:

1. Note Cards
2. Colored pencils, markers
3. Yarn
4. Student journals

Preparation:

Prepare and cut the cards out and roll yarn into a ball.

Activity con't:

Next, remove one resource from the community. For example—call out pastures, everyone with a pasture card will drop that line. Do this for two to three resources. Discuss what happened to the web when a resource was removed.

Conclusion:

Students should be able to understand what the early Hispano settlers needed as far as natural resources and the built environment to live in the early days of the land grant settlements. Like all communities, the resources are shared, and when we share resources equitably, everyone in the community wins.

Wrap-up:

Have students answer the following questions in their journals:

1. *What do you think was the most important resource to the community? Why?*
2. *How are acequia communities the same as a modern community? How are they different?*
3. *What is the most important built part of the community? Why?*
4. *Do modern communities share resources? If so, what do they share?*

River

Antelope

Acequia

Sheep

Water

Pigs

Trees

Horses

Grass

Chickens

Garden

Deer

Crops

Elk

Bolita Beans

Turkey

Corn

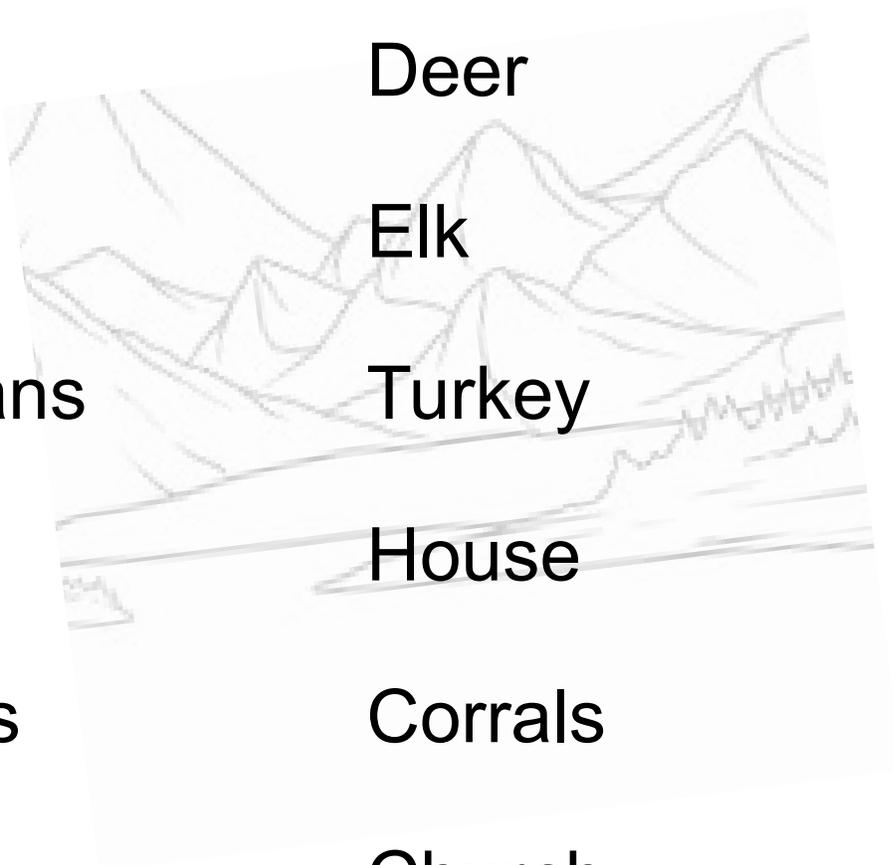
House

Field Peas

Corrals

Cattle

Church





Discovery Center

Colorado Water Law—Who's on First?

Learner Outcomes:

1. Determine and explain the historical context of key people, events, and ideas over time including the examination of different perspectives from people involved.
2. Classify and analyze the types of human and geographic connections between places.
3. Students will recognize people in communities manage and build using resources in their environment.
4. Examine the characteristics of places and regions, and the changing nature among geographic and human interactions.

Materials

1. Paper cups
2. One bucket per group for "Water for the Commissioner"
3. One bucket for each group filled from half full to full. The amounts should vary.
4. Marker

Preparation:

Each student will need a copy of the story "Colorado's Water" and the Call sheet.

Divide students into groups and ensure there is one cup per student, trash can 150 feet from start line and one water filled bucket per group.

Introduction:

The story of Colorado's water began in the acequias, near present-day San Luis. Today's activity starts with students reading the story "Acequias – Beginning Colorado's Water Story." After students have finished reading, begin a discussion asking students to think about how difficult it might have been to file for water rights in the 1850's. How would they get to the territorial office to file for their water right? What were the dangers they might have encountered? What happened to the water user if they never filed for their water right?

Activity:

The activity will require students to work in groups. Once their groups are formed, have them name their group and assign each group member a number. (If there are four people in the group they would choose either 1,2,3, or 4. if there are fewer or more members in the group adjust accordingly). Next, go outside. Explain that you will be the Territorial water commissioner and in charge of seeing who files their claim and in what order. The idea will be that each acequia can only have a water right if they get their water to the water commissioner's bucket. Let them know that you understand how difficult this will be, given the terrain they need to cross and the changing weather they will encounter. Students will line up by their acequia. Using the marker have them draw a line on the outside of their bucket to show the beginning water level of their acequia. Have students stand in a single file line beginning with the student who is number 1 and continuing in numerical order. Remember there should be one line of students for each acequia. Give each group member a cup of water (small cups work better) and have them fill all cups from their acequia. Explain that when you say go, students will need to move to the water commissioner based on what the commissioner says. Finally have them predict the order they will arrive and make a note of their position for later in the activity.

Clear weather means they can walk quickly.

High winds means they must turn circles.

Steep mountains means they must take big, exaggerated steps.

Snow and ice means they can only use baby steps.

Cold weather means they must hold their coat around them as they walk.

Got a horse means they can gallop.

Hot weather means that they need to hold a hand at their brow like a hat.

Show them that your office is about 150 feet away. Remind them that anyone that drops their cup is finished and they are out and the remaining members will have to continue without them. .



Discovery Center

Colorado Water Law—Who's on First?

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2. Classify and analyze the types of human and geographic connections between places.
3. Students will recognize people in communities manage and build using resources in their environment.
4. Examine the characteristics of places and regions, and the changing nature among geographic and human interactions.

Materials

1. Paper cups
2. One bucket per group for the "Water for the Commissioner"
3. One bucket for each group.
4. Marker
5. Copy of Call Sheet for each student.
6. Copy of "Colorado's Water" Story for each student

Preparation:

Each student will need a copy of the story "Colorado's Water" and the Call sheet.

Divide students into groups and ensure there is one cup per student, trash can 150 feet from start line and one water

The only way the next person can begin is for the previous person to get their water in the commissioners bucket. Once they get to you they need to dump their water in your bucket and walk quickly back to their acequia, go to the back of the line and start over until all water is delivered. Once the last cup is delivered to the commissioner they need to stand in a single file line at the commissioners office and cheer the other group members on. The first group to get to their water to the commissioners bucket will be the first water right and so on until all water rights are filed or lost.

Conclusion:

Once all teams have deliver their water and filed their water right, have them mark the commissioners bucket. Compare the two buckets did they get the same amount of water they started with? Return to class and have students fill out their water call sheet that you provided earlier.

Wrap-up:

Once the students have completed their call sheet, open up a discussion. Was it easier or harder than they thought? Did everyone get their water? Why or why not? What happens if people keep moving to Colorado, will we have enough water? What can we do?

Time: 1- 45 minute period

Location: Outdoors

Acequias –Beginning Colorado’s Water Story

The water cycle is an important process on Earth, as it is essential for all life. The water cycle influences where plants will grow, where people can live, and what animals can survive in a certain area. On a very basic level, the water cycle influences what you wear every day. If it’s snowing, you make sure to wear a coat. When it’s raining, you wear rain boots and carry an umbrella. The water cycle also helps you live and grow, because all living things need water to survive. The water cycle even plays an important role in the production of food, clothing, and more! It’s amazing to see the influence one small process has on the whole world.

This is no different in Colorado. In Colorado we enjoy four very distinct seasons: Spring, Summer, Fall and Winter. Winter is very important in Colorado, not just because we can ski or sled, but because it is the snow that falls in the mountains that gives our state 85% of its water. In the winter snow falls and piles up on our mountain peaks and remains there until we warm up in the spring and summer. As the temperature warms the snow melts and fills our streams, rivers, and lakes. This water is used for drinking and cooking, showers, and baths, washing clothes and cars, water for animals, trees and plants. We grow crops to eat and feed our animals, we use it for recreation likes fishing, rafting, or swimming and all of our wildlife depend on Colorado’s water.

As people came into the state they settled near water. This was especially true when the Sangre de Cristo Land Grant was settled in southern Colorado. The original land grant settlers were descendants of the Spanish Moors. The Moors recognized the value of water for people in their communities and believed that it should be shared equally. To ensure that it was shared equally, they developed a system of earthen ditches called *Acequias* that moved water around the community.

As more people moved into the state, water resources were quickly developed and claimed by the communities near them. This was a concern to the leaders of the Colorado Territory who recognized the need to assign water rights to communities and individuals to ensure the water remained with the people who had first developed them. These Hispano residents of Sangre de Cristo Land Grant developed the first permanent town in Colorado (San Luis) and hand dug the San Luis People’s Acequia. This acequia is the oldest continuous water right in the State. In 1852, the San Luis Peoples Acequia was the first of 16 water rights in the territory, all of which were filed by parciantes (water users) of the San Luis acequias.

This was no small feat. To legally claim these water rights the people had to travel to the territorial capital in Denver. This was a dangerous journey that took weeks of walking and riding in all types of weather and against many obstacles. Their determination is a testament to the value of water.



Discovery Center

Colorado Water Law—Who's on First?

Water Call Sheet

Team Name:

Order by number:

Order by filing with the Commissioner:

Amount of water:

- The Acequia got all of the water they started with.
- The Acequia only got $\frac{3}{4}$ of the water they started with.
- The Acequia only got $\frac{1}{2}$ of the water they started with.
- The Acequia only got a $\frac{1}{4}$ of the water they started with.
- The Acequia didn't have any water.

- 1.) Did you finish in the order you each chose?
- 2.) If not, how will you make sure each one of you gets the water? What will you need to do?
- 3.) Can everyone get the water they file for?
- 4.) In a drought year only the first two rights holders will get their water. What happens to the others?
- 5.) If you are a parciante on an acequia what happens?



Field Introduction

Settling the Sangre de Cristo Land Grant

Overview: Students will visit the Sangre de Cristo Land Grant where they will visit “La Sierra,” the village of San Acacio, and the Vega Commons. See how settlers in the 1800s used the built environment to settle the Land Grant.

Time: Day Long Visit

Location: Outdoors

Learner Outcomes:

- Formulate compelling and supporting questions after evaluating primary sources for point of view and historical context.
- Gather and analyze historical information to address questions from a range of primary and secondary sources containing a variety of perspectives.
- Gather and analyze historical information from a range of qualitative and quantitative sources. For example: demographic, economic, social, and political data.
- Construct and defend a historical argument that evaluates interpretations by analyzing, critiquing, and synthesizing evidence from the full range of relevant historical sources.

Preparation:

Please contact:
Sangre de Cristo Heritage
Center Museum
401 Church Place
San Luis CO 81152
719-672-0999
costillacountyedc@gmail.com

Arrangements should be made at least 3 weeks in advance to give staff time to set up your desired field experience.

Welcome to the Sangre de Cristo Heritage Center

When you come to the heritage center you can choose from a variety of Land Grant tours. Just contact the office and they can help you set up your tour. You can choose from the following options:

A walking tour of a local acequia. You will see how they operated then and now.

A visit to La Sierra. In the past, like today, Hispano settlers gathered wood and timbers for building and grazed their livestock. The cabins in the Salazar Tract still stand and serve as an annual meeting place for grazers to begin the spring and summer grazing seasons.

La Vega grazing commons. You can see firsthand why this important resource still helps acequia ranches raise cattle. This is a key area recognized in the Beaubien document for “parciantes” (land owners) in the lower lands to have access to grazing for their livestock.

The Village of San Acacio. Visit the historic parish that serves as both the spiritual and business center of the village. Students will meet with the Morada elders who ensure the community’s spiritual heritage remains a key part of daily life.

The Comision of the San Acacio Acequia. Meet with them to understand the key role they play in ensuring that there is equity in the distribution of acequia water to parciantes.

A local farm that grows heritage crops. Learn how they are grown and harvested.

Enjoy local foods snacks during your visit. Each visit is targeted to your specific need and grade level.

Note: While the sites will vary depending on the museums guide availability. We suggest helping students frame their visit using the following types of questions:

How are places like communities similar to and different from where you live?

How do people celebrate traditions?

How do people use resources in the local community?

How do individuals in the community use the environment?