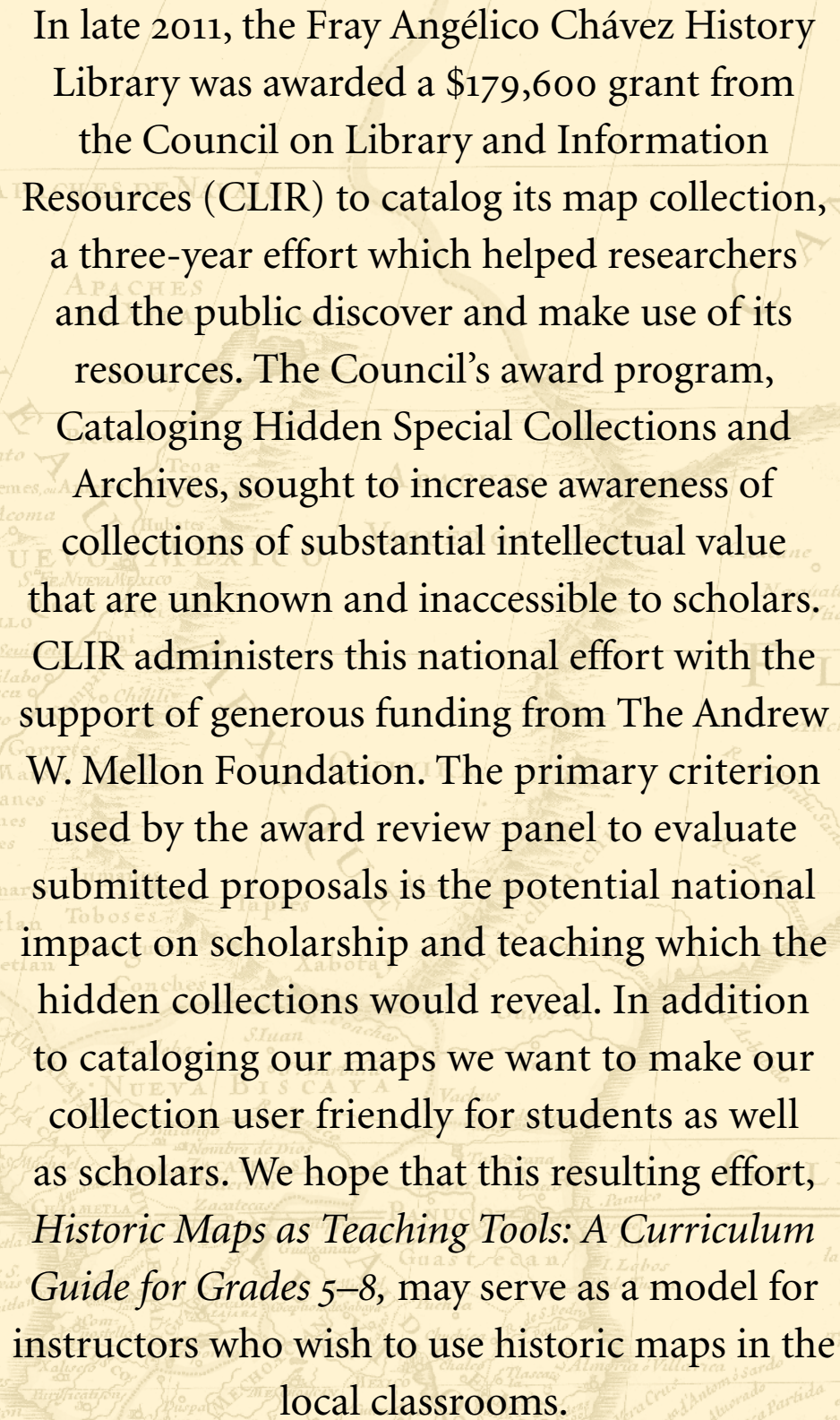


# *Historic Maps as Teaching Tools: A Curriculum Guide for Grades 5-8*



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In late 2011, the Fray Angélico Chávez History Library was awarded a \$179,600 grant from the Council on Library and Information Resources (CLIR) to catalog its map collection, a three-year effort which helped researchers and the public discover and make use of its resources. The Council's award program, Cataloging Hidden Special Collections and Archives, sought to increase awareness of collections of substantial intellectual value that are unknown and inaccessible to scholars. CLIR administers this national effort with the support of generous funding from The Andrew W. Mellon Foundation. The primary criterion used by the award review panel to evaluate submitted proposals is the potential national impact on scholarship and teaching which the hidden collections would reveal. In addition to cataloging our maps we want to make our collection user friendly for students as well as scholars. We hope that this resulting effort, *Historic Maps as Teaching Tools: A Curriculum Guide for Grades 5–8*, may serve as a model for instructors who wish to use historic maps in the local classrooms.

# *Historic Maps as Teaching Tools: A Curriculum Guide for Grades 5 Through 8*

## **INTRODUCTION TO THE GUIDE**

Learning about the history of New Mexico through maps can be a tall order for students and perhaps a challenge for teachers. To complicate matters more, maps have a demanding academic language of their own, including place names, dates, and events that may be hard to pronounce because of where and when the maps were made. Maps as visuals also may be difficult to comprehend. Our goal in this Curriculum Guide is to offer 5 through 8 teachers purposeful experiences that link maps to effective instructional practice of the major strands in the social studies standards. The strategies have been “field tested” over many years in elementary and middle school classrooms, as well as university courses. The strategies serve as a bridge to connect the existing and evolving social, cultural, and linguistic landscapes of the 5-8 classrooms with all that maps have to offer as teaching tools. Maps provide an additional avenue for learning about history, geography, government, and economics.

Getting students to use maps as a way to communicate what is taking place at a particular time opens the door to learning. In addition, unlocking maps’ secrets can be extremely helpful in motivating students. Teachers should consider integrating maps, whether more traditional or digital forms, into social studies instruction. This approach moves history away from strictly using textbooks to integrating maps and more kinesthetic experiences into the learning process. This guide includes interactive strategies that can engage and empower students to learn more about key events, people, and times in New Mexico’s past through historic maps.

When students role-play, play games, solve problems, or make their own maps, what they learn sticks. These strategies yield unexpected educational outcomes, which provide opportunities for students to make choices, take risks, and investigate evidence as they learn by doing.

## **SPECIAL FEATURES OF THE GUIDE**

The contents of this guide are derived from 1) real classroom experiences with students, 2) a sequence of professional development sessions with educators, 3) conference presentations, 4) consultations at individual schools, and 5) scholarly publications. Whether it is singing a song about the Santa Fe Trail, exploring the best animal to use to pull wagons, reading diaries and letters written over hundreds of years ago, role playing a cartographer or explorer, and/or playing games, students have multiple opportunities to learn about the past and present through maps and the lingo associated with them.

This guide is based on three fundamental principles to grow social studies learning in grades 5-8: 1) building teacher instructional

capacity in the use of maps, 2) accommodating students’ diverse educational needs, and 3) appreciating and understanding teaching and learning through maps. A key feature of this guide is the use of maps that provide a window into learning about New Mexico’s past by implementing strategies that teachers can easily adopt to supplement their existing social studies programs, thereby further benefiting all their students.

## **HIGHLIGHTS OF THE GUIDE**

Teaching and learning history builds on the notion that it is based on evidence that can be uncovered as well as continuously reinterpreted. It is this vision that we embrace and is reflected throughout this 5–8 guide. The curriculum guide includes a vast array of strategies that are designed to engage students. These strategies may be exercises, investigations, or games that get students to be active learners as a way to better understand their state’s and American history. The strategies also complement the current national, state, and local curricula and social studies standards. The curriculum guide will be available on the New Mexico History Museum website and as a downloadable document on CDs as well.

It is our hope that by using maps, students’ natural curiosity will propel them to use their senses and cognitive abilities to explore these historic treasures. As students travel the journey of cartographers, explorers, and ordinary people, they embark on journeys that they want to talk about and share. The quality of these journeys is determined by their teachers’ implementation of the best practices that capitalize on the students’ desire to learn.

This guide seeks to heighten teachers’ awareness of the critical role that maps play in history, geography, government, and economics. Maps serve as a catalyst for addressing the four major strands in the social studies state standards.

## **DESIGN AND ORGANIZATION OF THE CURRICULUM GUIDE**

Throughout the curriculum guide, maps and other graphics are used to enrich the textual discussions. The guide has three major parts, beginning with Part One, “What is a map?,” that includes an orientation to maps and mapping, Part Two includes four broad periods in New Mexico’s history, and Part Three is devoted to supplementary teacher resources. The discussion will highlight the Spanish, Mexican, Territorial, and Statehood periods. Maps that represent specific time periods and effectively afford opportunities to engage students in a variety of experiences were the selection criteria. Along with the maps for each time period, appropriate background information and exercises associated with those maps are included.



# Part One: Introduction to Learning about Maps and Mapping

## WHAT IS A MAP? HOW DOES IT WORK? AND TO WHAT ENDS?

Simply put, a *map* is that which gives graphic display to spatial relationships, not only on the surface of the Earth, but below it (e.g. mines) and above it (e.g. airline routes) as well. The planetary and star systems beyond the Earth also are being “mapped,” as too are fictional realms (e.g. Middle Earth).

“Map” comes to us from the Medieval Latin “*mappa*” (napkin), which in turn came from the Carthaginian for “signal cloth” (semaphore). “Chart” (and “card”) comes from the ancient Greek “*chartos*” (leaf [of animal skin or cloth]).

*Cartography* comprises a powerful, widely used, intricate, and little understood form of communication that is at least as old as language. Maps are multidisciplinary (where art and science meet), mathematically based and frequently populated with unfamiliar symbols that communicate pictorially. They have been around for 11,000 years or more (e.g. on stone and bone in Asia Minor and the Near East). Humanity achieved “graphicacy” even before it achieved literacy; people learned to draw before they learned to write and also probably mapped before they wrote. But no one group can be credited with the origins of cartography. Maps appeared simultaneously as needed in different parts of the world. The earliest maps often are unreadable (or even unrecognizable) because there are no Neolithic survivors to serve as translators. Similar problems exist in understanding the cartography of more contemporary indigenous peoples such as the Indians of the Americas or Islanders of the South Pacific of the period before European contact.

Consequently, *maps speak to their users not only in their own times, but across time as well*. To begin to comprehend a map and its messages, it must first be understood in its own time. Who was it for, for what purpose(s) was it created, and by whom was it made? And to more fully grasp how a map works, its various more important parts also must be understood:

- Neatline — the line framing the content of the map
- Title — the subject of the map
- Cartouche — often decorative figure containing information (e.g. title and author)

- Legend — guide to the content of the map
- Scale — to compute distances between locations for spatial relationships
- Symbols — descriptive
- Insets — details of the map emphasized
- Coordinates — to determine locations for spatial relationships
- Commentary — explanations

More than geography, maps also mark historical development and much of the economic, political, social, cultural, scientific, technological, and intellectual circumstances of their own ages. Furthermore, maps can be viewed as art and a part of the wider human aesthetic experience. *They have always helped people define who they are, where they are, and how they move about.*

Undeniably, *maps have helped to chronicle history and to make history*. Since at least the later Western Middle Ages, the unique graphic language of maps has made them important to those interested in history as *sources, illustrations, and teaching-learning expedients*. They can carry large volumes of data and promote deeper involvement with their subject matters by graphically stimulating the reasoning processes. Here a picture may indeed be worth a thousand words!

- Maps are primary sources, documents.
- Maps are intimate, providing more immediacy to the social studies (e.g. they are an important part of the history of discovery and exploration).
- Maps lend themselves to interpretation — as a human creation, every map has a point of view.
- Maps lend themselves to role-playing.

Maps such as those in the impressive collection of the Fray Angélico Chávez History Library (dating back more than 400 years to the present) can be important to telling the stories of New Mexico and the United States to students of all ages. Today’s maps are not really that “different” from those of the more distant past. As the geographer David Greenhood has said, “As maps become less strange to us they grow more wonderful.”

## STRATEGIES FOR IMPLEMENTING — WHAT IS A MAP?

**#1.** One way to familiarize students with map terms is by introducing poems by Cherry Carl. One of her poems is *A Sense of Place* (<http://www.tips-for-teachers.com/socialstudiesactivities.htm>). It presents a vision of how maps share a special sense of space and place.

### *A Sense of Place*

Maps outline a special space  
And always give us a sense of place.  
Where are we going and where have we been?  
How will we get there and when, when, when?  
How many miles will we have to drive?  
How will we know when we finally arrive?  
We follow the key, the key on the map,  
That's always there on somebody's lap!  
Will we pass through towns that are very small?  
Will we get to see any places at all?  
Look at the map and you can see  
Just where we are and where we'll be!

In a second poem, *A Key With No Lock*, Carl provides a unique perspective on what maps have to offer students. Maps offer insight into the secrets that they hold for the user.

### *A Key With No Lock*

Every map has a special key  
So you know what is earth and what is the sea.  
Oceans and rivers and lakes are blue,  
But I know that and so do you!  
Trees and grass are usually green,  
On every map that I've ever seen!  
Roads and freeways are easy signs...  
They're usually marked with big black lines.  
Every map has a special key,  
So, when you look, you'll always see  
Symbols and signs that help you read.

**#2.** A second strategy to use to assess students' understanding of maps and historical events surrounding the information on the map is the "map cube game."

### Map Cube Game Version 1

- The cube has terms from the lesson taught on the parts of a map.
- Directions: Students roll the cube with terms on each face. They point to the term facing up, for example, "Legend," on a map.

### Map Cube Game Version 2

- A second map cube with directions on it is introduced.
- Students roll 2 cubes.
- The direction cube includes specific actions using symbols and words, for example put the map term in a sentence, act it out, etc.



By having students use different learning modalities, they have opportunities to think about these new terms in different ways, giving an example, talking about it, etc. Sample word and direction cube templates are provided at the end of the guide.

# Part Two: Learning about New Mexico's Historical Periods Through Maps

## Section I: Spanish Period

**Don Bernardo Miera y Pacheco, *Mapa de ella parte interna de la Nueva Mexico*.** Unpublished presentation copy, ca. 1760. Oil on canvas. 42 x 39 in. (78.9 1760)

**SIGNIFICANCE:** After the discovery of the New World by Christopher Columbus, who was commissioned by the Spanish royals Ferdinand and Isabella, Spain began to seek sovereignty, wealth, and territory across the seas in the Americas and Asia. As Spain acquired new lands and settlements, the need for accurate maps of them, including New Spain arose. The Spanish born Bernardo Miera y Pacheco (1713–1785) was an artist, cartographer, surveyor, *santero* (wood carver of religious art), and captain in the Spanish Royal Corps of Military Engineers. He and his

family settled in Santa Fe in about 1754, and about three years later, he was commissioned by the governor to create a comprehensive map which showed the six provinces of northern New Spain. The map he created shows a portion of New Spain, from the area in the south near Chihuahua, Mexico north to near Taos and in the west from the Hopi mesas east to the Pecos River Valley. The map shows details of topography, and includes all Spanish settlements and Indian tribes known at the time and remained state-of-the art for fifty years.

This image is of a presentation copy, made of oil on canvas, perhaps painted by Miera y Pacheco about 1760.





**Sanson, Nicholas, *Amérique septentrionale divisée en ses principales parties*.** Paris: H. Jaillot, 1674. Color. 22 x 33 in. (7.0 1764)

**SIGNIFICANCE:** The original version of this map was created in 1650 by Nicolas Sanson d'Abbeville (1600–1667), Royal Geographer to King Louis XIII of France and the “Father of French cartography.” It was updated and reworked in 1674 by his sons Guillaume (1633–1703) and Adrien (1639–1718) in collaboration with Alexis-Hubert Jaillot (c. 1632–1712).

Although the works of the Sansons and Jaillot represent a high point in French cartography, this map nevertheless perpetuates

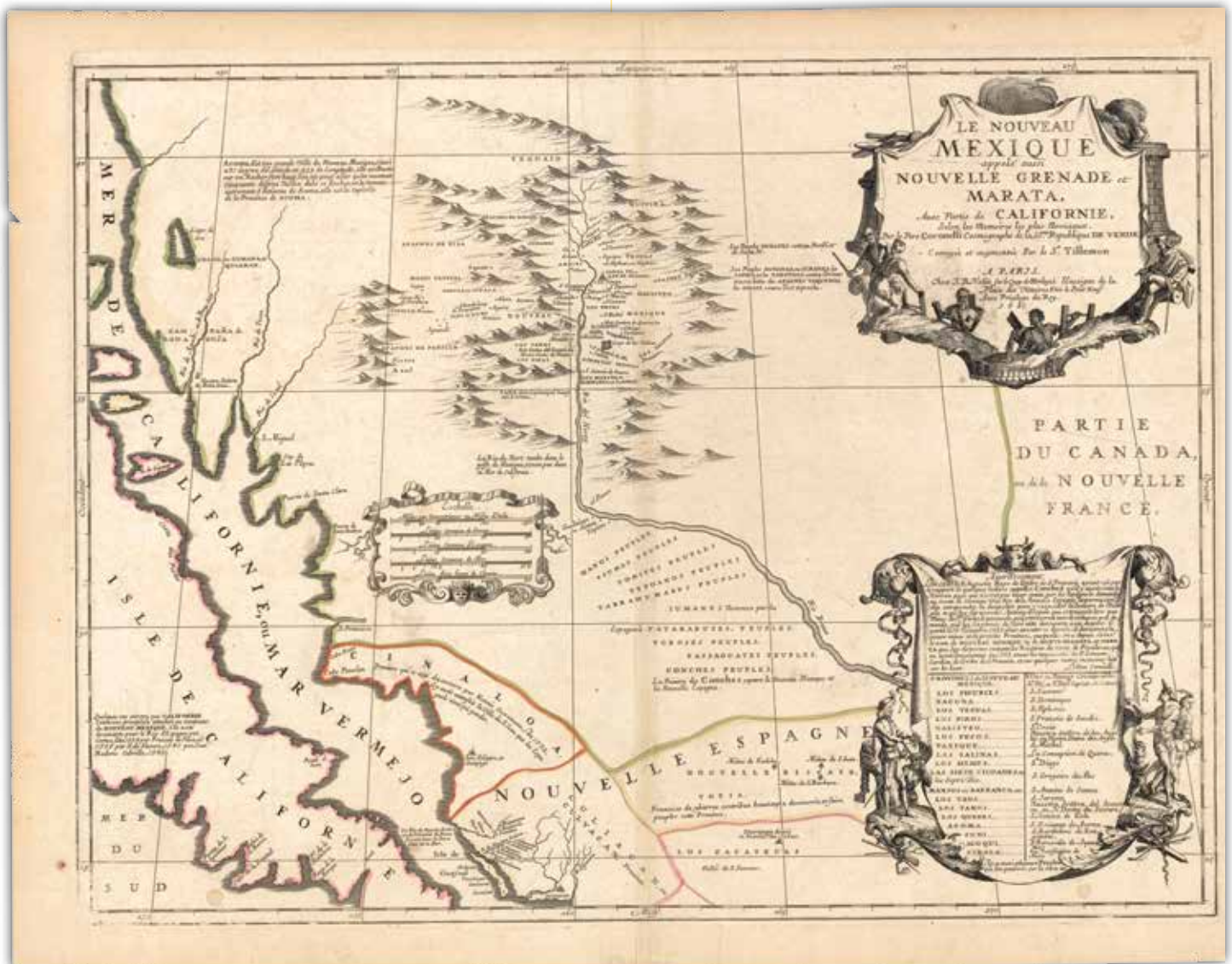
some misconceptions about the Greater Southwest. Baja California is exaggerated and depicted as an island, and the Rio Grande emanates from some rumored “great lake of the West” (Great Salt Lake?), runs through New Mexico, and empties not into the Gulf of Mexico, but the Vermillion Sea (Sea of Cortez, Gulf of California). Sanson was the first cartographer to show Santa Fe as the capital of New Mexico, but is placed on the west side, the wrong side of the river. However, the map is considered especially important because of the numerous Indian and Spanish place names in the Southwest that it conveys.



**Vincenzo Coronelli, *Le Nouveau Mexique, appelle aussi Nouvelle Grenade et Marata*.** Paris: Chez J.B. Nolin, prob. pub. 1680–1689, shows 1685? Outlines in color; 20 x 27 in. (7.2 1685a).

**SIGNIFICANCE:** This rare 1742 map of the Rio Grande Valley of New Mexico originally done in 1688 by Father Vincenzo Coronelli (1650–1718), a Franciscan friar, cosmographer of the Republic of Venice, and royal cartographer to King Louis XIV

of France, accentuated its importance as still the best and most exact large-scale map of the region. Although California is still depicted as an island, the map nevertheless shows the Spanish discoveries and pueblos along the upper Rio Grande and correctly records it as flowing into the Gulf of Mexico. This copper engraved map on rag paper was done when France was the dominant power in North America and European cartography.





STRATEGIES FOR THE SPANISH PERIOD

Getting Started Using Map Journals

When learning from maps, diaries, and letters, that help to tell the history of New Mexico, using journals is one way for students to record their experiences for others to read. Using journals consistently has had positive results on students’ thinking and writing. In addition, the entries, be they responses to questions, notes, drawings, reflections, and/or inserts/hand-outs, can be reviewed over time by students and their teachers for conceptual understanding and serve as valuable sources of information. The journals can be simply made by stapling lined paper to a cover or purchasing composition books or three-ring binders.

There are many ideas for formatting map journals including having students personalize the cover, leaving a few pages blank for a table of contents, numbering the pages, and making the journal interact by determining what goes on the right (input) and left (output) sides, including the Cornell note-taking system. No pages should be torn out or removed—communicating to the students that information is important and should be kept in its original form. If a mistake is made, students draw a line through it and go on. When students complete an entry or a day’s assignment, they should draw a “line of learning” to indicate they are done. And, consider having a glossary of map related terms in the back of the journal. There is an expectation that students will write or print neatly and legibly and in complete sentences, if possible.

Many of the strategies in this guide use sentence frames to stimulate students thinking to encourage descriptive writing in their map journals. Teachers have access to what students know and do not know and what misconceptions they may have and the skills they use to organize information. Journals serve as direct measures of student understanding, based on what has been taught. Teachers look for evidence of overall quality and quantity of student-generated artifacts in them. These artifacts provide students opportunities to relive the experiences taught and learned by describing, drawing, and completing tables. Journals can be treasure troves of information from students.

Lastly, inputting information is critical, but so is finding it after it has been entered. Taking the time to model how to retrieve information can be helpful in completing assignments, studying for quizzes, and participating in class exercises. Journals can be a significant instructional tool that can benefit both the students and their teachers.

#1. One way to learn more about the Spanish Period is by investigating Don Bernardo Miera y Pacheco’s *Mapa de ella parte interna de la Neuba Mexico* of ca. 1760 and Vincenzo Coronelli’s *Le Nouveau Mexique* map, ca. 1680. Students writing in their map journeys begin to make comparisons. To get students thinking about similarities and differences between these maps and the reasons for them is to ask the following questions: [Note: Essentially, this strategy is to acquaint students with the maps in the other periods as well.]

What do you notice, at first, about each map?

Coronelli	Miera y Pacheco
Printed map (copperplate)	Hand painted on canvas
Mountains surrounding the Rio Grande	Mountains surrounding the Rio Grande
Indians mentioned	Indians and buffalo pictured and described
Written notes	Written notes
Latitude and longitude for place location	Latitude for place location

What seems to be important to the cartographer of each map?

Coronelli	Miera y Pacheco
Topography	Topography
Importance of Rio Grande River	Importance of Rio Grande River
Indian and Spanish presence (e.g., settlements)	Indian and Spanish presence (e.g., settlements)

What are the major geographical factors determining Indian and Spanish settlement patterns?

Sentence response frames can be used to stimulate students’ thinking and to provide a scaffold to support and guide them in seeing patterns and relationships between maps. Students can respond orally as they work in pairs and small groups as well as during whole class discussions. There responses can also be written on class charts and in their map journals along with pictures to illustrate their ideas.

A KEY QUESTION: What are the major geographical factors that determine Indian and Spanish settlement patterns? Suggested response frame: (The Rio Grande) and (mountains) are the major geographical factors determining Indian and Spanish settlement patterns. Where did the Spanish settlers locate? Suggested response frame: The (Spanish) who got there later often settled near the (Indians).

*What do the two maps have in common, if anything? List these common elements in the chart below.*

Coronelli	Miera y Pacheco
Accuracy; based on the most recent surveys of the time (ca 1680s)	More accuracy; in 1760s–1770s, he was on the scene and a trained military surveyor
Mapping the same geographic area	Mapping the same geographic area

Miera's map was drawn almost 100 years after Coronelli's map. Why is Miera's map more accurate than Coronelli's? Miera reflects 100 years more knowledge of New Mexico than was available to Coronelli. As a surveyor, Miera mapped only what he could measure and/or see. Coronelli relied heavily on word of mouth information from Indians and others.

*Sentence response frames* to get students to think about the common elements that these two maps share.

The Miera y Pacheco and Coronelli maps are similar because they both have \_\_\_\_\_.

In addition, these maps both have \_\_\_\_\_.

They are different because the Miera map has \_\_\_\_\_, but the Coronelli map does not have \_\_\_\_\_.

Teachers should model examples to show how to put contrasting points together. For example, "You can compare the same property, characteristic, and/or event in the same sentence by using words such as, "and," "but," or "whereas" to set up the contrast. Students should read to their partner or group members what they have written in their journals and together they can add more detail. For example, "Also, the \_\_\_\_\_ has \_\_\_\_\_ whereas the \_\_\_\_\_ does not.

**#2.** Using a pair-share approach, students work with their map buddies as a team. Here are a few ways to get students to collaborate.

Have students work on metaphors that provide situations that get them to think creatively by using figurative language. Maps are like *pictures* because they present *information visually*. These three maps are like *windows* into Spanish New Mexico because they *reveal what was known about it then*.



**#3.** Game-based strategies can be used to practice, review, and/or recycle previously taught content and skills. Students embrace games enthusiastically because they become emotionally invested in their goal to win or to help their group win the game. The games also build group spirit and activate spatial skills along with kinesthetic movements. Lastly, games can be played anywhere, in and out of classrooms; they can even be taken home and shared with parents and other family members. It is helpful if the teachers (a) model how the game is played, (b) highlight and explain the appropriate vocabulary to avoid any misunderstandings, (c) give clear directions beforehand, (d) begin with games that students are familiar with, and (e) consider putting students in pairs initially to support each other.

Map bingo is another way to familiarize students with these maps. According to Allen (2008), students learn twice, when students create games and play them. Using game-based strategies in this way, students double their learning time with the content information.

Students first are game makers then they become game players. Teachers provide students working in groups of three with blank bingo cards containing nine and up to 12 spaces, and they are to draw or write map information randomly in the spaces. Teachers working with the whole class offer a few examples to get the group members started. For example, I have California as an island on the Sanson map and if this information is on their bingo card, they place a bean on this space. After the few examples are provided and students fill in some of the bingo spaces with map information, they are ready to play with their group members. They include all contributions from the group to complete at least one bingo card. This is the first step in learning about the maps from the Spanish Period (or from any other period). Next, students following the format provided draw or write the same information on blank index cards that match the information in the spaces. These cards are then placed in a bag.

The class comes back together, and students take turns randomly picking the index cards from the bag. One student pulls a card out and shows the picture or reads the information to the class. Those who have the match on their cards cover the spaces with beans or buttons. To win, the student reads the information in the covered spaces on his/her card. If the winner has difficulty reading, he/she can ask for a “lifeline” for assistance. In this example, students are dealing with information derived from historical maps in different times and in different ways, while negotiating meaning with peers.

#### MAP BINGO TEMPLATE

	<b>FREE SPACE</b>	

*Using the Sanson, Miera, and Coronelli maps, the following are examples for the bingo cards:*

California as an island from the Sanson map

Rio Grande River from Sanson map

Buffalo from the Miera map

Compass rose from the Miera map

Indians from the Miera map

Indian village from Miera map

Mountains on the Coronelli map

Santa Fe symbol from Coronelli map

Quivira and other place names that are on all three maps

**#4.** Seeking information strategy from maps generally involves one student who has the map information and a partner who has to guess what the information is by asking yes or no questions. The “The Cartographer Has It” exercise is one example. The guesser faces away from a partner who has a laminated card on a string hanging from his/her back. The teacher models questions that elicit yes or no responses and focus on map content being studied, such as,

“Are there cities designated on the map?”

“Are there symbols to connote Indian villages? Spanish villages?”

“Are there rivers depicted on the map?”

“Are there Spanish villages, Indian pueblos, animals, etc.?”

“Are there groups of people on the map? Can you tell if they are Indians or Europeans?”

The partner can see the map and responds, “yes” or “no” to the questions that the partner asks. The game is over when the guesser says, “Is the map of \_\_\_\_\_ by \_\_\_\_\_?”

**#5.** Looking for information as in the exercise, **Map Scavenger Hunt**, students have yet another mode to seek, give, and/or listen for information from the historical maps. When playing “Can You Find \_\_\_\_\_ on your map?” students are given a sheet with a grid that asks for specific information, like the example provided.

Students circulate around the classroom, asking and answering questions, and collaborating with classmates and adults who may be present. Signatures are required to verify that students found the requested information. This exercise can be a forerunner of helping students to create maps of their school campus by locating specific key sites as well as to become acquainted with types of different maps, map features, and/or the maps’ history or story.

#### MAP SCAVENGER HUNT TEMPLATE

List your two favorite part(s) of the _____ map? (For example, animals)	Find another map with the same _____ (For example Animals — Miera, Santa Fe Trail maps)	Locate animal illustrations on the _____ map and explain what they mean to you?
On maps, _____, _____, and _____, how many have the Rio Grande?	Find another map (4th one) that has the Rio Grande Valley? (For example, Johnson’s map of the Southwest)	Trace with your finger the Rio Grande River on _____ and _____ maps. List at least 3 things that are portrayed along its banks.
Find where you live on the Rail Runner map (in Statehood Period) and trace it to the next stop along the line. Measure the distance in cm.	Even though they were created decades apart what do these two maps have in common? (New Mexico Rail Runner, and the ATSF 1923)	Look at the railroad map, identify three reasons it is important to New Mexico?
Find at least three ways New Mexico’s Mexican heritage is illustrated/depicted on _____ maps. (For example, language, territories, food, etc.)	Find maps that offer similar aspects/ characteristics (For example, Disturnell map of the American southwest, 1847 and Gilman, map of the US, 1848— also Johnson’s California, 1862)	Give at least three examples of how Indian and Spanish cultures are presented on _____ and _____ maps (For example, Miera, Santa Fe Trail, tourist map, Rail Runner)

*Note: The examples in the Map Scavenger Hunt Template use maps from all the historical time periods.*



## Section II: Mexican Period

**John Disturnell, *Mapa de los Estados Unidos de Mejico*.** New York: J. Disturnell, 1847. Color; 30 x 41 in. (7.2 1847).

**SIGNIFICANCE:** The Treaty of Guadalupe Hidalgo, which ended the Mexican-American War, was signed in 1848, but the Treaty did not put an end to both sides' claims on the fertile Mesilla Valley. The United States wanted this region in part due to its desire to build a transcontinental railroad across the disputed territory to California and its goldfields. A copy of the Disturnell map was used during the boundary negotiations by U.S. American and Mexican diplomats leading to the Treaty of Guadalupe Hidalgo. It was

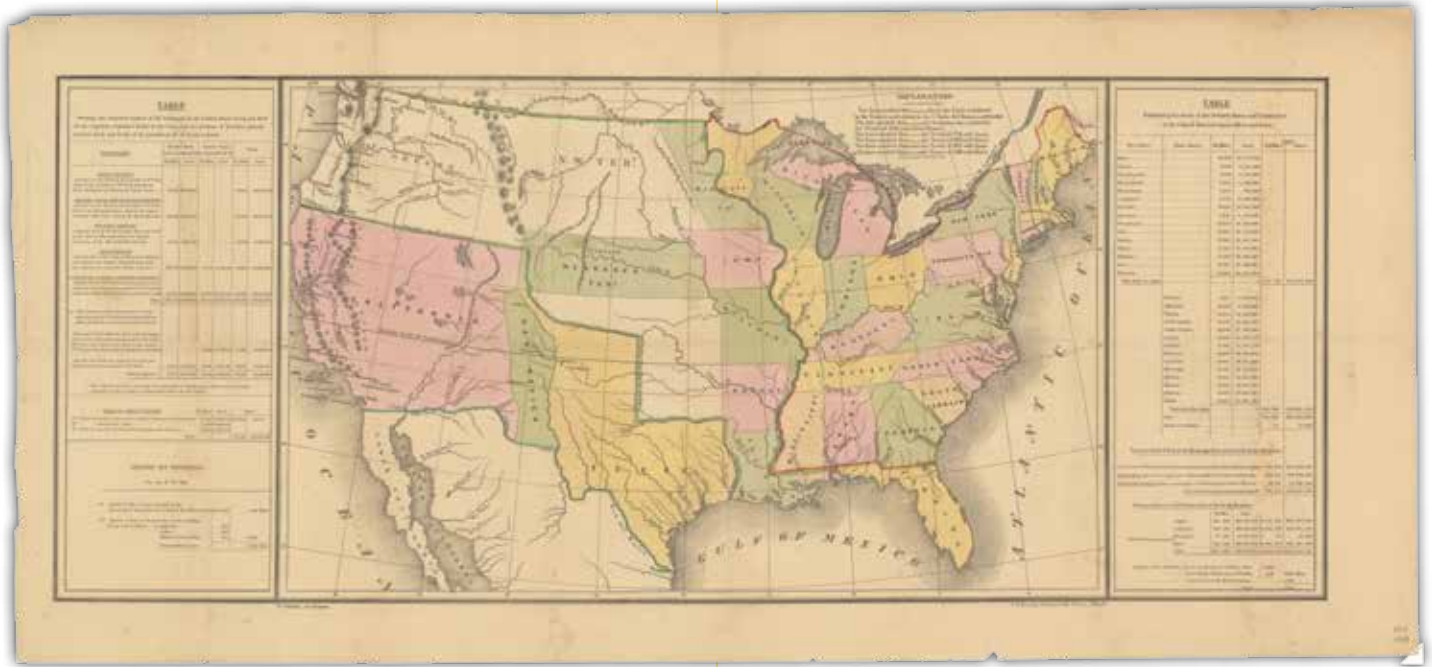
accepted as “authoritative” not because it was absolutely accurate, but because it was in general use in the United States and Mexico. Reflecting the popular interest in the opening of the American West, it was issued in twenty-three individual lithograph editions between 1846 and 1858. Consequently, the imperfect settlement based on it—because it placed El Paso thirty-four miles north and one hundred miles east of its true location—precipitated the corrective Gadsden Purchase in 1854. This map’s inaccuracies also spurred the American government more seriously to survey the western interior parts of the country.



**E. Gilman, *Table Showing the Estimated Surface of the Territories of the United States*.** Philadelphia: P.S. Duval, ca. 1848. Color; 13 x 22 in. (73.0 1848).

**SIGNIFICANCE:** The Gadsden Purchase, formally signed by Mexico and the United States in 1854, finally established a southern border of the United States with Mexico. The southern areas of present day New Mexico and Arizona now officially became American territory. This most recent land acquisition led to expansion of cattle ranching, mining, and eventually to the development of railroads and commerce to the area.

This chromolithograph map drawn by E. Gilman, a draftsman in the 1830s–1850s for the Philadelphia publishers H.S. Tanner and P.S. Duval, traces the growth of the United States across North America between 1776 and 1848 and depicts the American West after the acquisition of the Mexican Cession. The New Mexican lands east of the Rio Grande still are erroneously shown as part of Texas as it defined itself as a republic after its independence from Mexico in 1836. Gilman's image of Texas is derivative of Stephen F. Austin's important map of Texas published in multiple editions in 1830–1840. Texas would maintain rather spurious claims to areas of New Mexico until statehood in 1912.





## STRATEGIES FOR THE MEXICAN PERIOD

**#1.** When presenting information about maps, the following strategy can be used to organize it. Using the Disturnell map, the **Can, Is, and Has** strategy provides a context for exploring its features.

Can	Is	Has
be used to understand Mexican-American relations from the Mexican-American war to the American Civil War.  How can this map contribute to this understanding?	one of the most important maps in American history.  Why? It is in Spanish. <ul style="list-style-type: none"><li>• Geography of the area with relative accuracy</li><li>• Size of the republic of Mexico</li><li>• Territorial losses experienced by Mexico</li><li>• A major artifact of the Mexican American war because used by negotiators to settle the war.</li><li>• Used by the military to operate bases.</li><li>• Wrong in the depiction of the El Paso area, it required further negotiation with Mexico, hence the purchase of land—Gadsden Purchase, 1854.</li></ul>	Mexican eagle in the cartouche.  There are three states from the Louisiana Purchase (Arkansas, Missouri, Louisiana).  Mexican states and Texas.

## #2. The Gallery Walk

The gallery walk strategy is particularly appropriate to teach about maps. Many are of different sizes and can be posted around the classroom. Targeted questions both at the higher and lower levels of the cognitive domain based on the maps can be posed above each one, and students can respond to these questions using post-it notes. Teachers can identify individual student responses by asking them to include their initials in the lower right corner. Some time before, possibly during, or after the lesson students should have opportunities to take a “gallery walk.” Play music of the times, for example songs sung on the Santa Fe Trail. Also, students can take a post-it note that they find interesting, awesome, or just plain liked it to their seats and at the end of the class read it to everyone.

## #3. Checking for Understanding Using Hand Signals

Using hand signals is another way to engage students as well as to formatively assess the degree to which they are learning, for example the Gilman map and the information it can shed on the territories of the United States in 1848. Teachers or even students develop a series of yes and no questions related to the lesson topic, specifically in this case the Gilman map. For example:

- Is the Gadsden Purchase readily noted on this map?
- Are three states clearly identified on this map?
- Are both the east and west coasts of the United States drawn on the Gilman map?
- Does the map show how the United States looked geographically in mid-1800s?

When questions are asked, students use hand signals to answer each question on their own. For example, “one finger is for ‘yes,’ two for ‘no.’” Other maps can be used as well. A question might be, “Do maps you are looking at have latitude and longitude?”

## #4. The Last Standing Map Bee

This strategy offers students opportunities to stump their classmates by asking questions. The questions should be difficult so that many of the students do **not** know the answer without looking at the map. This exercise can be used in small groups and then shared with the entire class. The teacher records these questions on a class chart so that they can be read and referred to throughout the lesson (unit). The goal is to get students to pose questions that deal with content in at least two different ways — first by designing a question and then to go to the map to verify their answer. A question might be, Where is the title of the Gilman map? or What is the title of the Gilman map and where is the title located?

Next, each student tells group members their questions and those who answer correctly stand. The question and answer rounds continue until there are only a few students left standing who are declared the “winners of the map bee.” It is at this point that the teacher asks them to read the questions that stumped the class and then ask the students to find these features on the map.

## Section III: Territorial Period

***Santa Fe Trail by Irvin Shope.*** U.S.: American Pioneer Trail Assoc., ca 1946, shows ca. 1540–1889. Color; 15 x 22 in. Pictorial map. (78.0 S 1540–1889).

**SIGNIFICANCE:** Historical map, showing Santa Fe Trail in detail, and other details about New Mexico; also has about a dozen other trails and explorers' routes between Missouri and Arizona, Utah, and California.

Although the Santa Fe Trail was used by the Spanish and Native Americans previously, it was first established as a major transportation route in 1821 by trader William Becknell. The Santa Fe Trail started in Franklin, Missouri and ended in Santa Fe, and it became the premier trade and military route into the New Mexico Territory. Before the first transcontinental railroad in 1869, the Santa Fe Trail joined other famous earlier commercial and explorers' trails such as the El Camino Real to Mexico City and the Old Spanish Trail to Los Angeles and San Francisco as

the route used by settlers seeking a new life in the mostly unsettled West, heeding the call of “Manifest Destiny.” The Trail was 900 miles of rough, dry conditions with temperature extremes during winter and summer and regularly was troubled by unfriendly Indians. The Santa Fe Trail brought eastern goods to an already thriving Santa Fe as Mexican independence from Spain was finally realized. Many prominent Santa Fe families (Chávez, Perea, Armijo, Otero) became traders, as goods flowed both ways on the Trail and to the south and west from it.

Other major trails (the Oregon Trail and the Mormon Trail) were used during the 1840s and beyond, when Americans were first settling the territories of Oregon and California. Settlers from the East coast endured a six to eight month journey in perilous conditions before reaching the Western seaboard. The Homestead Act of 1862 encouraged those seeking land and prosperity mostly unavailable in the already settled eastern portion of the country.



ISSUED BY AMERICAN PIONEER TRAIL ASSOCIATION AS PART OF 1946 NATIONAL COMMEMORATION HONORING PIONEERS OF TRADE IN AMERICA

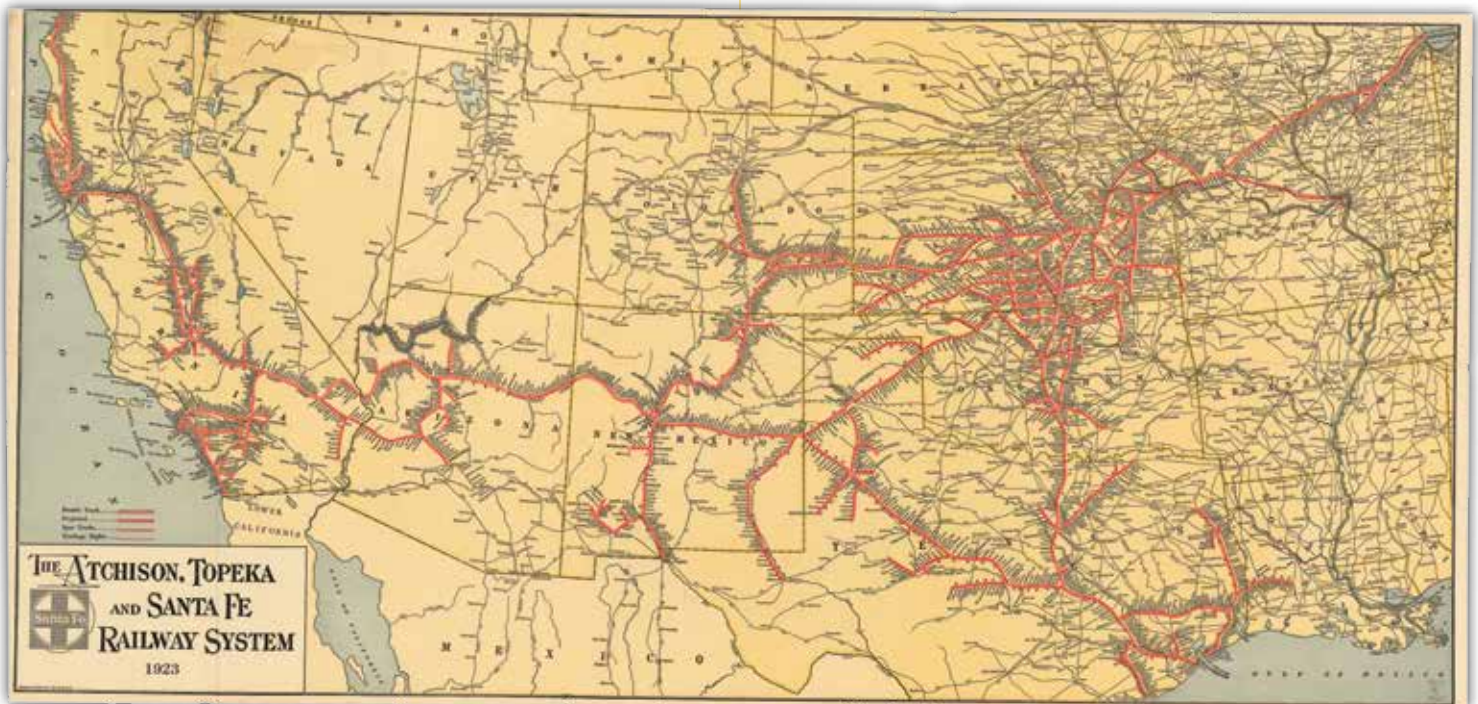
Along the old basin in Trail—a great primary growth zone—many different types are being developed. Among them are Independence and Keweenaw in Montana (Chubb, Gagnier, Burgener, Linnell, Goss, Grant, Reed, Leland, Dodge, City and Garden City in Kansas, Laramie, Las Animas, La Junta and Trinidad in Colorado, Bonito, Las Vegas and Santa Fe in New Mexico). The trail also runs across the famed Pinedale Ranch on Colorado, Pine Mound



***Atchison, Topeka and Santa Fe Railway System.*** New York: Montross and Clark Co., 1923. Color; 17 x 36 in. (78.0 Pa 1923).

SIGNIFICANCE: Shows westward expansion; transcontinental railroad; importance of railroads to Santa Fe and New Mexico commerce/immigration. After the first transcontinental railroad was opened in 1869, railroads made the trip West for people and commodities much faster and cheaper as well as far less dangerous. And if settlers failed or succeeded in their Western endeavors, it would be relatively easy for them to return East, which many did. By the 1880s, the railroads had supplanted almost all of the great overland trails.

In addition to settlers and goods, the railroads later brought tourists to the Southwest. New Mexico became a mecca for those seeking health cures, unique experiences (e.g. Fred Harvey's "Indian Detours"), and thus the "Land of Enchantment" was born. Railroads still thrive in New Mexico today (Belen is the site of a major junction of the Burlington Northern Santa Fe). This map is from one of the most famous companies, the Atchison Topeka and Santa Fe, which first reached Albuquerque in 1880. Ironically, the "Santa Fe" nearly bypassed Santa Fe (access to the city was from Lamy), and the AT&SF and other rail lines helped to make Albuquerque the largest city in New Mexico. This widely available lithograph map functioned as a route map for passengers and shippers and indirectly as a "booster map" for the Southwest.



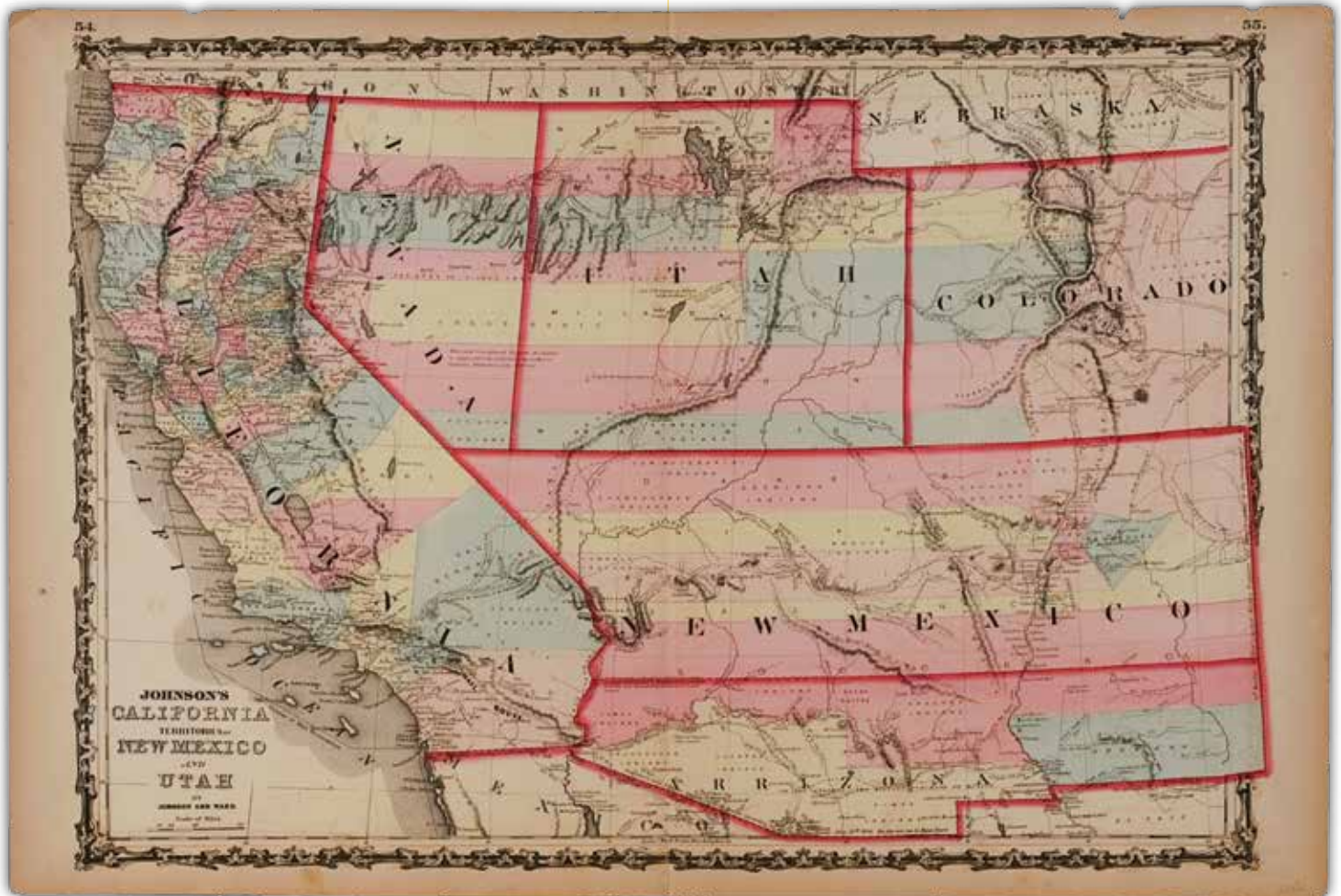
**Johnson's California, Territories of New Mexico and Utah.** New York : Johnson & Ward, 1862. Color, 15 x 23 (78.9 1862)

SIGNIFICANCE: Shows how borders in new territories were considered; shows land acquired from Mexico under the Treaty of Guadalupe Hidalgo at the end of the Mexican-American War and the borders of the new territories being considered.

When the Treaty of Guadalupe Hidalgo was signed in 1848 there was a delicate balance of fifteen free states and fifteen slave states within the United States. As new territories and states were added to this union the Compromise of 1850 strove to maintain that

balance. The Compromise settled the dispute between Texas and New Mexico over their borders in favor of New Mexico (Santa Fe, Texas no more!).

Western territories' borders were yet developing. The borders of Nevada, Arizona, and Utah are not yet those of today. Several counties still extended into both Arizona and New Mexico. This hand-colored detailed lithograph map that was widely disseminated in single sheets and popular atlases includes explorers' routes, major commerce trails and routes, tribal affiliations, proposed railroad routes, which are all part of New Mexican and western development.





## STRATEGIES FOR THE TERRITORIAL PERIOD

**#1.** Another way to uncover what maps have to offer is to use graphic organizers. A more familiar one is the KWL chart that is often used to target prior knowledge and then as the lesson progresses the other columns are completed. The K-L-E-W chart gets students to *think* about what they think they *know* about, for example, the Santa Fe Trail — where it started and ended, its purpose, its role in New Mexico’s history, etc. The addition of the “E” encourages students as they *learn* more about the map by analyzing it for *evidence* to support their learning. The “W” attempts to stimulate students’ thinking about new *wonderings* about trails in general and their role in history and the importance of maps in tracing specific routes such as the Santa Fe Trail. See the graphic below. For intermediate grades, a class chart using this graphic can be done initially with the whole class; upper middle school students can make their own entries in their map journals.

K	L	E	W

The questions to stimulate students’ thinking about a map include:

K = What do you think you know?

L = What are you learning?

E = What evidence supports what you are learning?

W = What new “wonderings” can be investigated using this map?

**#2.** Look at the Johnson, Atchison, Topeka and Santa Fe Railway map, or the Gilman map.

Using cardinal and intermediate directions, describe the location of New Mexico in relation to its neighboring states.

- \_\_\_\_\_ is \_\_\_\_\_ of New Mexico.
- \_\_\_\_\_ is \_\_\_\_\_ of New Mexico.
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- \_\_\_\_\_ and \_\_\_\_\_ are \_\_\_\_\_ of New Mexico.
- \_\_\_\_\_ and \_\_\_\_\_ are \_\_\_\_\_ of New Mexico.

**#3.** To investigate the Santa Fe Trail map by Shope further, the students read and then write their own tall tales/stories, diaries, and letters as they role play pioneers, travelers, trappers, cartographers, and explorers. Students create their own stories, diary entries, and letters, and record them in their map journal. These journal entries may be used in future exercises and games. In role playing, students take on historical roles that encourage them to think and use their imaginations. For all students, dressing up, and using props to play a specific character in one of the four historical periods can not only be fun but educational. When role playing, students are representing and experiencing the character that offers unique combinations of integrating experiential learning with gaining a deeper understanding of and interest in New Mexico’s history through maps.

After introducing maps and discussing different aspects of a specific Period, teachers determine the settings and the characters and write this information on index cards and place them in two different bags. Students randomly select a figure and the setting card from the bags. By assuming the personalities of their characters, students share historical information that provides a degree of authenticity to playing the roles, such as cartographers Miera y Pacheco, or Coronelli, or Santa Fe Trail trader Becknell, or travelers and diarists Sister Blandina or Susan Shelby Magoffin.

Students may find it necessary to do additional research about the figure’s life and times and his or her contributions, awards, etc. So they are learning twice: once when they do the research and next when they role play the historical figure. Responding to the following questions can get them started:

I will be role playing \_\_\_\_\_ historical figure.

This person lived around the following years \_\_\_\_\_.

The most memorable contributions are \_\_\_\_\_.

Most people do not know that this person did \_\_\_\_\_.

What I liked about this person is \_\_\_\_\_.

I would ask this person the following three questions: \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.

Additionally, role playing involves students in the “real-world” side of history by dealing with often complex issues and situations and develop a sense of presence when they perform in front of others.



Also, students need to consider where they joined the wagon train, or boarded the boat west by looking at the map for this information as well as identifying the challenges and determining their final destinations. Students investigate the topography and the availability of water and provisions for themselves and their animals (Blue = Rivers-Steamboats, Purple = Camino Real — wagons and carts, Red = Santa Fe Trail — wagons, and Pink = Canals-canal boats).

The following scaffold prompts the students into the roles they select for writing their stories, diary entries, and/or letters back home to family members.

Where did you begin? Why—what were your reasons for going?	What were problems that you encountered along trail?	Where did you end your journey? Why did you select this location? What did you do after you arrived?

**#4.** Now that the students have “traveled” on the Santa Fe Trail (SFT), they are ready to change roles to get others to join them in their “new found” homes. Students consult the map of the Santa Fe Trail and their own diary entries in their map journals as well as those of previous travelers William Becknell, Susan Shelby Magoffin and Sister Blandina, who all published diaries of their journeys on the Santa Fe Trail. In these diaries, sketches of the animals they saw, the descriptions of what their journey was like, and the dreams that motivated them to go and to press on to their final destination even in the face of geographic and other challenges are included. The map and the entries provide ideas for students to prepare a promotional brochure; there are pictures and notations included that will give the new travelers clues to what they will encounter along the Trail. The following chart can generate ideas for this task:

Why travel the SFT?	Quotes from their diaries and those of previous travelers	Sketches made to show the beauty of open space—flora and fauna that were new to them
Ex. To make money by selling trade goods to start a new life in the southwest	From William Becknell’s diary—when he arrived in Santa Fe and then when he returned to Missouri	

**#5. Songs** can be used at the beginning, during, or at the end of lessons. For example when studying about the Santa Fe Trail, there are many different songs that students can sing as adults and children did in the 1800s to pass the time. Songs were sung in English and Spanish.

Songs such as *Skip To My Lou* — popular game (dance) began in the early 1800s. *Buffalo Gals* — referred to women who took on the rough lifestyle of the west. Here is the song from *The Santa Fe Trail Traveling Trunk and Activity Guide*.

Chorus

Buffalo gals, won’t you come out tonight,  
Come out tonight, come out tonight,  
Buffalo gals won’t you come out tonight,  
And dance by the light of the moon.  
I asked her if she’d stop and talk,  
Stop and talk, stop and talk,  
Her feet covered up the whole sidewalk,  
She was fair to view.

Chorus

I asked her if she’d be my wife,  
Be my wife, be my wife,  
Then I’d be happy all my life,  
If she’d marry me.

Chorus

**#6. Which Animals Will You Choose?** is also from *The Santa Fe Trail Traveling Trunk Education and Activity Guide*, Making Trail Decisions with Cause and Effect Implications.

- Will it be mules or oxen? Why? You make the decision using the following information and be prepared to defend your decision.
- Animals must be dependable for 60 days or more.
- Students read the information below.

Mules	Oxen
Cost \$100 for 2	Cost \$50 for 2
Tough hooves	Softer hooves
Need expensive harness	Uses cheaper wooden yokes
Work well in heat	Do not work well in heat
Slick flat hooves that slide	Cleft hooves get good traction
Picky about what they eat	Survive on poor grass
More likely to be stolen	Less likely to be stolen
Not tasty to eat	Meat (beef) better tasting
Excitable	Less excitable

- What is your decision? What information did you use to make this decision?

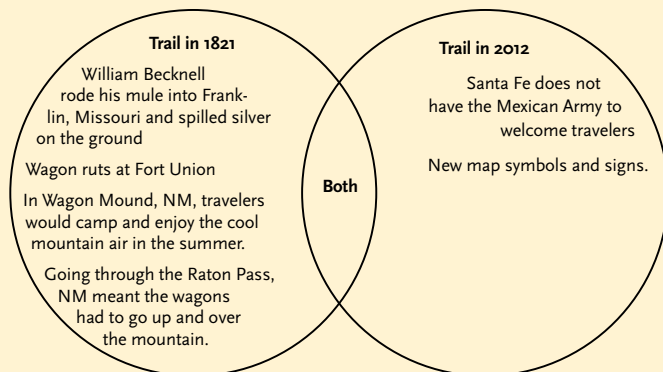
## #7. Take a Guess

Before beginning instruction, have a few artifacts available that give hints about what the map topic of the day will be. Students work in pairs (or triads). With their partners, have the students create a list of three to six important facts about what they *think* the topic will be based on the artifacts placed around the classroom (e.g. pictures of wagon trains for the northern route of the Santa Fe Trail, maps of their local area, advertisements for westward movement, etc.). Students write down their ideas in their individual map journals and then collectively come to a consensus about the topic of the lesson. As teachers present the lesson content and cover specific information, students circle the items that they thought might be mentioned. This exercise connects with what the learners already know about the Southwest, specifically New Mexico, and prepares them for what they are about to learn.

This exercise is well suited for learning about the territorial period and the Santa Fe Trail using Shope's pictorial map showing the trail in New Mexico along with a dozen others from 1560–1889. It is a good visual to hand out because it is rich with famous people, forts, historical information, trade routes as well as notations.

**#8. Making Comparisons** between Shope's map and the modern day highway map encourages students to think about New Mexico and the development and origins of current day cities and historical sites.

Use a Venn diagram to show different ways of travel, life at that time, etc. Write facts for each period and compare them in the "Both" Circle. See below to get started.



**#9. The Santa Fe Trail Today.** Have the students design and write a *Vacation Guide* based on the Santa Fe Trail using today's highway road map. Include the following in your guide:

- Identify points of departure, stops along the way, roads to be taken, and round-trip mileage.
- Include a minimum of three historic sites and their locations, and identify the sites, such as museums, historic houses, the trail itself — ruts, or any other places that may be of interest to tourists.
- Your guide should be appealing to prospective travelers.
- It should include pictures, illustrations, and maps as well as correct spelling, grammar, and punctuation. The *Vacation Map of New Mexico, Land of Enchantment* published in 1954 provides students with many ideas for their brochure, pointing out the recreational attractions, historical and contemporary attractions calling attention to the state's nickname (Arnett, 2000).

## #10. Classroom Mural

Other trails to study are the Old Spanish Trail and the Oregon Trail. Students can participate in making a classroom mural depicting another trail to move west. When designing the mural with group members, it should include the:

- Terrain and features of the trail.
- People who would be traveling on the wagon train.
- Means of transportation.
- Supplies/materials that might be found inside the wagon.
- Domesticated animals, including those being pulled behind wagons.
- Dangers that people might encounter on the trail, at least three.
- Animals and plants seen along the trail.
- Places along the trail to rest and sleep.
- One famous landmark that travelers would encounter along the trail.

Your drawing must have all the items stated above. You may want to label information or use a legend to make the mural easier to understand.

## #11. Westward Movement Scrapbook

Students will create scrapbooks with group members that show the trek of traveling west. The scrapbooks can be stand alones or they can be incorporated in their map journals. The scrapbook will contain many things about family life and experiences along the trail as well as daily written entries and drawings to record what happens on your travels. Things you need to know to create your scrapbook, you will:

- Be traveling for 6 weeks — you decide on the time of year and where your journey will begin and end. Check out the Disturnell, Gilman, and Shope maps that depict the Santa Fe, Old Spanish, and Oregon Trails for ideas.
- Decide on your family members — number of siblings, if any, etc. and why you are making the journey.
- Determine the supplies that you will need, type of wagon to best survive the journey, animals to bring along, etc.
- Draw plants and animals seen along the trail.

At the end of your journey, you will have a scrapbook complete with a detailed account of a family that traveled from Missouri to Santa Fe, Santa Fe to California, or Santa Fe to Oregon that will include: (1) diary entries and pictures and (2) stories heard and songs sung and other mementos of daily activities.

A student drawn map of the trail will provide a record of the journey west. Landmarks and dangers encountered along the way should be clearly indicated. Create a timeline of at least 6 events that happened while on the trail.



*Vacation Map of New Mexico, Land of Enchantment.* color; 21 x 17 in. Pictorial map. Santa Fe, NM: State Tourist Bureau, 1954. (78.9 E 1954)

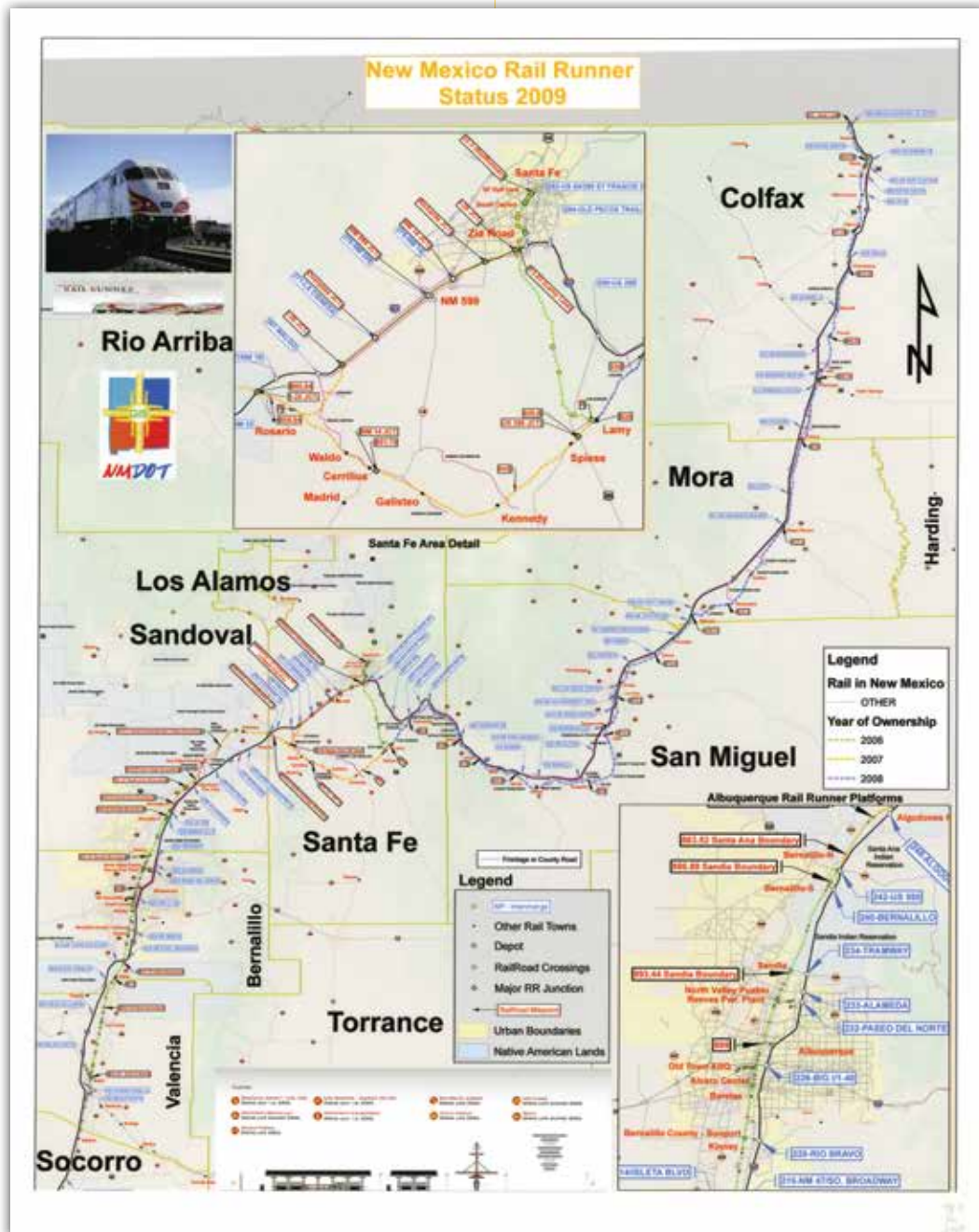
Tourism brings in over \$6 billion to New Mexico every year, making it the third largest industry in the state. Out-of-state

[illegible]

**New Mexico Rail Runner Status 2009.** Color; on board; 22 x 17 in. Santa Fe, NM: State Highway and Transportation Dept. 2009. (78.9 Pa 2009)

**SIGNIFICANCE:** The latest addition to New Mexico's transportation network, bringing major urban centers closer together and attempting to alleviate crowded interstate highways, is the New Mexico Rail Runner. Following the old Atchison, Topeka and Santa Fe Railway track, this modern light rail system runs between Belen and Santa Fe. The tracks north of Santa Fe are currently used by Amtrak and freight companies such as the Burlington Northern Santa Fe Railway.

The Rail Runner has been a successful commuter and day visitor train between Belen, Albuquerque, and Santa Fe since it first began running in 2006. Tourists and locals make the trip to Santa Fe or Albuquerque to visit the cities' museums and historic plazas for a day's worth of sightseeing. Commuters use the travel time to sleep, read, work, or relax as a safe and environmentally friendly alternative to their daily highway trip. This well designed and wholly functional map is for those who use the Rail Runner and to advertise it to others, in and out of state.



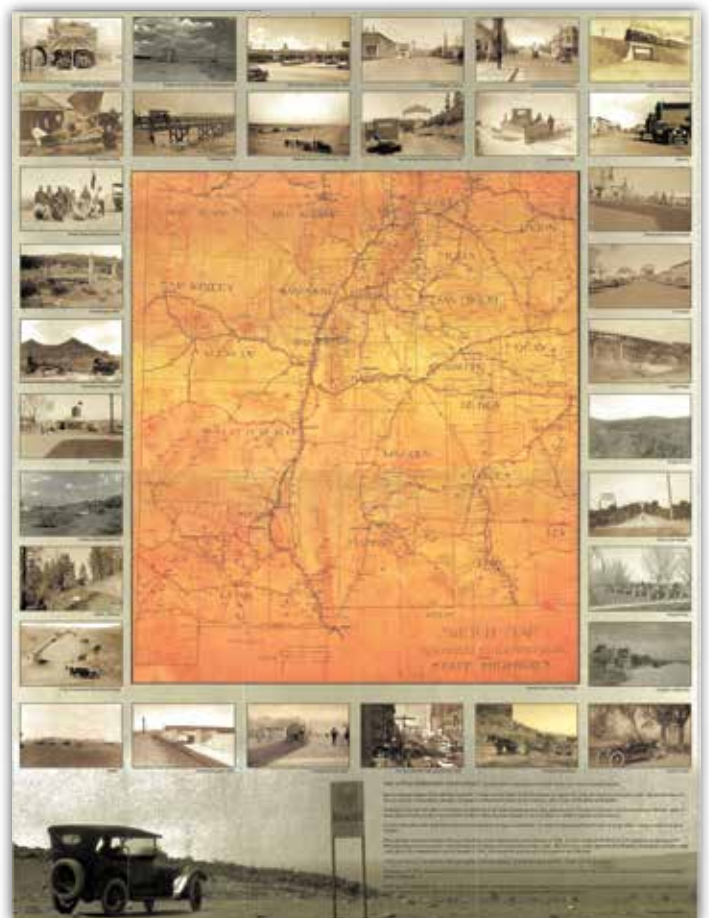


**Official Highway map of New Mexico, America's Land of Enchantment.** Commemorative Centennial of Statehood edition, 2012. Color; 35 x 27 in. Santa Fe, NM: Dept. of Transportation, 2012. (78.9 1912–2012)

**SIGNIFICANCE:** Over time, official New Mexico highway maps reflect the state's progress. They also are used to promote tourism and other economic development. This special edition has hand-drawn 1912 period map road, "Sketch Map Showing El Camino Real on and State Highways," on its reverse side.

Road maps have been produced for centuries, but they really came into their own with the proliferation of the automobile. Americans love their cars, and road maps helped them navigate across, between and within states. The famous Route 66 (the

"Mother Road"), which ran from Illinois to California via New Mexico, was one of the most renowned roads in the United States, memorialized in popular culture as the icon of "Main Street America." During the great Dust Bowl migration of the 1930s those seeking a new life in California traveled the small towns along Route 66, and later tourists helped to keep these small towns prosperous as they vacationed on the famous road. Gradually replaced by the interstate highway system since the 1950's, much as paper road maps are being displaced by GPS systems in the twenty-first century, some of the famous by-gone roads and New Mexico at the beginning of statehood are depicted on the reverse side of this official highway map of New Mexico from 2012. It also has many wonderful photographs from 1912 surrounding the old map.





## STRATEGIES FOR THE STATEHOOD PERIOD

**#1.** Using images from selected maps, students illustrate their fact based and imaginatively enhanced stories about New Mexico.

This exercise begins with the teacher partnering with a student to model how the “telling of these New Mexico stories” work. Together they make up a story. The goal is to have students take turns with a partner using map information from the four historical periods laid out in the curriculum guide to tell their stories. As their stories unfold, the highlights are recorded in the students’ map journals. They might begin, “The earliest people of New Mexico were the Indians. They developed art, religion,...” The students continue to contribute to their story until it comes to what they think is an appropriate end. Student cognitive and language skills will determine the total number of sentences, but in the beginning eight to ten sentences may prove optimal. Then pairs of students share their stories in front of the class, and members of the class vote on the “best” story — the one they liked. As students cast their votes, they give reasons for their selections, using higher order thinking skills including making decisions and analyzing information. In taking turns to tell their tales, students have to listen and talk in order to contribute fully.





**#2. I have a Connection With...** activity goes well with many maps, but using those that focus on road maps and more contemporary ones work the best. The materials: post-it notes cut with 6 sides and a map of New Mexico that is posted on the wall.



The students are given a post-it note that has 6 sides like the cell of a honeycomb. Students share what they have a connection with when looking at the map. The sentence frame: *I have a connection with T or C because my grandfather was born there. Or I have a connection with Chimayo because my family travels there to visit the Sanctuary.* Once the students have 2 or 3 of these “I have a connection...” written out on the post-it notes, bring the class together and ask them to read what they have written and place the notes on the map in their place proper locations. Once all the students have shared what is written on their post-it notes and placed them on the map, ask students to look at where most of the notes are located. Are there patterns? Do most of the students have connections with northern, eastern, southern, and/or western parts of the state? In what ways? Are most of the locations near one of the three major cities (Albuquerque, Las Cruces, or Santa Fe)? Are the notes clustered along the river, highways, etc.? Why do you think so?

## #3. Three/Four Columns

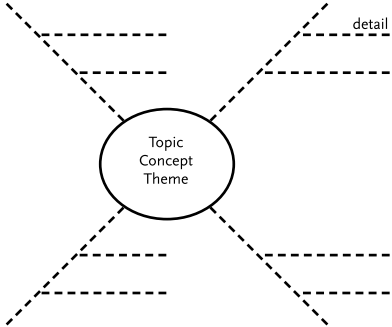
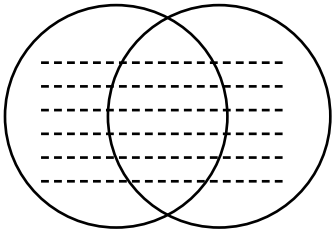
- Before examining the Rail Runner, Vacation, Highway, and/or railroad maps, teachers ask students to fold a piece of blank paper, holding it horizontally into three/four equal columns (Asaro, J.). At the top of each column, have students draw the following pictures (small): A book: for important facts; A light bulb: for new ideas that come to mind; A question mark: for any questions they have about the map or area under study. If they have a fourth column, include a running stick figure for ways to find answers to their questions. As the students construct their own sheet, the teacher draws one on chart paper large enough for the students to see. Together the teacher along with the students make the three/ (or four) column class chart. Students are given time to work with a partner or group members to review the map and have them fill in the information where it best fits in specific columns on their sheets.
- Using the class chart, the teacher models a few examples involving the students to get them started. For example, using the Rail Runner map, for the book column — it runs from Santa Fe to Belen; light bulb — people use it to go between cities for work, recreation, school, etc.; question mark — Why are people using it? Why are so many not using it?
- Instruct the students that they will be adding to or taking information away depending on the ideas that are shared. If the information is in the incorrect column, they are simply to put one line through it and add it in the correct one. At different points during the lessons, the teacher stops and tells the students to write a word or phrase or draw a picture in the column or columns that apply. Initially, teachers guide this activity by saying, “In the book column, write down two important facts you just learned about maps.”

This advanced organizer gives students a reason to stay engaged and to add information in each column — teachers encourage students to look for patterns as they enter information in each column.

#4. Different types of graphic organizers can be used to support students as they investigate a topic, compare ideas and/or makes

comparisons as they relate to historical events, figures, maps, etc. Examples of organizers are presented in the table below.

<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Serve as bridges between students' prior knowledge and what they will be learning about as they investigate different events, individuals, and maps related to the history of New Mexico.</li> <li>• Lower level organizers are more concrete and target knowledge and comprehension vs. application and analysis. Higher level organizers focus on evaluating and creating to target abstract concepts.</li> <li>• Different forms of organizers produce different learning results. For example, the spider map is effective when the task is to generate more and different ideas. It is a visual representation showing the relationship between ideas using shapes with key terms and arrows that explain how the ideas are related.</li> </ul> <p><b>Spider Map</b></p> 														
<b>To Promote Comparing and Contrasting</b>	<ul style="list-style-type: none"> <li>• The goal is to investigate two or more ideas (things) to uncover similarities and differences. The Venn diagram generally will help answer the following questions, What is being compared? How similar or different are they? The T-Charts are designed to compare similarities and differences by labeling individual characteristics on the right or left sections as shown below.</li> </ul> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Venn Diagram</b></p>  </div> <div style="text-align: center;"> <p><b>T-Charts</b></p> <table border="1" style="border-collapse: collapse; margin: auto;"> <tr> <td style="padding: 5px;">+ item</td> <td style="padding: 5px;">- item</td> </tr> <tr> <td style="padding: 5px;">+ item</td> <td style="padding: 5px;">- item</td> </tr> <tr> <td style="padding: 5px;">+ item</td> <td style="padding: 5px;">- item</td> </tr> </table> </div> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; margin: auto;"> <tr> <th style="padding: 5px;">LOOKS LIKE</th> <th style="padding: 5px;">SOUNDS LIKE</th> </tr> <tr> <td style="padding: 5px;">-----</td> <td style="padding: 5px;">-----</td> </tr> <tr> <td style="padding: 5px;">-----</td> <td style="padding: 5px;">-----</td> </tr> <tr> <td style="padding: 5px;">-----</td> <td style="padding: 5px;">-----</td> </tr> </table> </div> </div>	+ item	- item	+ item	- item	+ item	- item	LOOKS LIKE	SOUNDS LIKE	-----	-----	-----	-----	-----	-----
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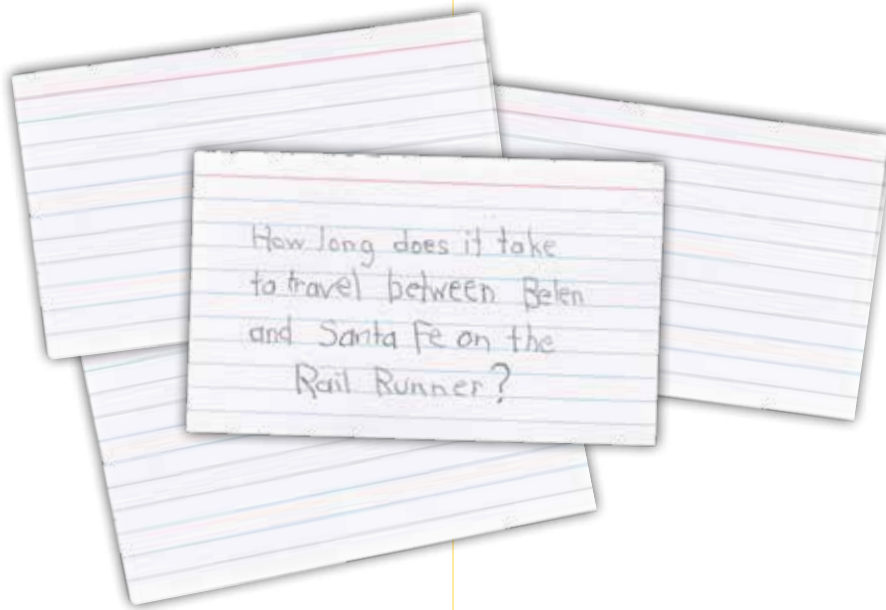
## #5. Checking to See If They Got It

Following the same idea as the three/four columns, students use index cards to write important facts, words, points, and/or questions on them — one item per card. After a discussion on transportation and communication since statehood, the students review the New Mexico Highway, Atchison, Topeka and Santa Fe Railway System, and Rail Runner and/or Vacation maps to find facts, points, etc. to write on their cards.

The objective of this exercise is to get students to recognize that each map reflects a different mode of transportation and collectively how they have served the state. Take the Vacation Map, for example, students see that people who live in New Mexico or come to visit and enjoy the state's natural beauty and in doing so they spend money, serve as ambassadors for promoting our state, and some consider relocating and in doing so, they bring

their talents, ideas, and abilities to contribute to the state's future. In addition, with the interest in traveling in our state, there is a demand to have modern roads, different and varied entertainment venues, restaurants, gas stations, etc.

1. Students review their cards with their partners or group members and compare the information on their cards.
2. After about 5 minutes, have students pass one card to members of another pair or group. Using Popsicle sticks with student names randomly choose a stick and the student's whose name is on it is asked to share what is on the index card. Encourage the other students to add more information than is on the card.
3. Collect the cards and skim them and address common issues that the students may have.



## Conclusion

We hope that the strategies included in “Historic Maps as Teaching Tools” will provide educators with examples and inspiration for using maps in the 5 through 8 classrooms. Maps offer a unique perspective on New Mexico's long and complex history, and as such can offer students the opportunity to understand that history in perhaps a new light.

The maps used in this guide, as well as hundreds of others, are available for further study at the Fray Angélico Chávez History Library in Santa Fe. We hope that teachers and students will have an opportunity to come visit the maps in person. For further information please visit the Library's web site at <http://www.palaceofthegovernors.org/library.html> or call (505) 476-5090.



## Part Three: Teacher Resources

### FURTHER ONLINE RESOURCES

Arnett, Leni. *Americans Move West: The Santa Fe Trail* (Grades 6–8). Denver Public Schools, 2000. PDF file <<http://www.dpsk12.org/programs/almaproject/pdf/AmericansMoveWest.pdf>>

Asaro, Jeri. *Active, Engaged and Learning: Helping Your Classroom Buzz with Excitement*. Web 4 June 2015 <<http://hopemiddle.weebly.com/active-engagement-and-learning.html>>

“Atlas of Historic New Mexico Maps” on the New Mexico Humanities Council site has 20 historic maps of the New World and New Mexico, with annotations. <<http://atlas.nmhum.org/>>

Damico, Denise. *Susan Shelby Magoffin*. Web 9 June 2015 <<http://newmexicohistory.org/people/susan-shelby-magoffin>>

Digital exhibits at the Fray Angelico Chavez History Library, including “Between the Lines: Culture and Cartography on the Road to Statehood” highlights New Mexico maps from the mid-16th century to the 100th anniversary of statehood. <<http://www.palaceofthegovernors.org/exhibits.php>>

Digital interactive exhibits at the New Mexico History Museum, including “Shifting Boundaries,” an exploration of our state’s changing borders over time. <<http://www.nmhistorymuseum.org/interactives.php>>

Holland, Mandy. *Social Studies Activities: Maps and Globes*. Web 4 June 2015 <<http://www.tips-for-teachers.com/socialstudiesactivities.htm>>

*Moments in Time* videos by New Mexico PBS and the New Mexico History Museum, including “Maps of New Mexico”. The site includes fifteen short videos on New Mexico’s diverse history. <<http://www.newmexicopbs.org/productions/momentsin-time/>>

National Park Service. *The Santa Fe Trail Traveling Trunk Education and Activity Guide: Bent’s Old Fort National Historic Site*. PDF (Feb. 2000, rev. Oct. 2005). <<http://www.nps.gov/beol/learn/education/upload/Activguide-final2.pdf>>

O’Brien, Katie. *The Nun Who Took on Billy the Kid*. Web 9 June 2015 <<https://www.chcweb.com/catalog/files/billythekid.pdf>>

Wheeler, Allen. *The History of the Santa Fe Trail And Its Founder, William Becknell*. Web 4 June 2015 <[http://williambecknell.com/?page\\_id=202](http://williambecknell.com/?page_id=202)>

*Write Design Online* Web 4 June 2015 <<http://www.writedesignonline.com/>>

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Julyan, Robert. *The place names of New Mexico*. Albuquerque: University of New Mexico Press, 1996.

Mundy, Barbara E. *The mapping of New Spain: indigenous cartography and the maps of the Relaciones Geograficas*. Chicago: U of Chicago Press, 1996.

Reinhartz, Dennis. *The art of the map: an illustrated history of map elements and embellishments*. New York: Sterling, 2012.

Reinhartz, Dennis and Colley, Charles C. *The mapping of the American Southwest*. College Station: Texas A&M, 1987.

Reinhartz, Dennis and Reinhartz, Judy. *Geography across the curriculum*. NEA Professional Library, Washington, D. C. 1990.

Reinhartz, Dennis and Saxon, Gerald D. *The mapping of the entradas into the greater Southwest*. Norman: U of Oklahoma Press, 1998.

