

La Próxima Parada: The Next Stop Along El Camino Real

Let the council decide!

Grade Level(s):

4-12 (may be adjusted according to level)

Duration:

2-4 week project

Subjects:

Social Studies/History, Mathematics, Geography

Goals:

At the end of this lesson, students will:

- Confidently read, measure, and interpret topographic maps
- Demonstrate proficiency plotting points on an XY plane
- Understand the meaning of latitude and longitude as GPS coordinates, and the significance of geographical markers/obstacles
- Conduct independent research and relate material back to a central theme
- Study and master the principles of debate, participate in a mock council, and cohesively organize and strategize an argument with a group

Instructional Objectives:

	Grade 4	Grade 5	Grades 6-8	Grades 9-12
Common Core State Standards	<u>Mathematics</u> MP.2, MP.4, MP.5 <u>English Language Arts</u> W.4.1, W.4.2, W.4.7, W.4.8, W.4.9 RI.4.3, RI.4.7, RI.4.9	<u>Mathematics</u> MP.2, MP.4, MP.5, 3-5.OA 5.G.A.1, 5.G.A.2 <u>English Language Arts</u> W.5.7, W.5.8, W.5.9 RI.5.1, RI.5.7, RI.5.9	<u>Mathematics</u> MP.2 7.EE.3 <u>English Language Arts</u> RST.6-8.7, RST.6-8.9 WHST.6-8.7, WHST.6-8.8, WHST.6-8.9	<u>Mathematics</u> MP.2, MP.4 <u>English Language Arts</u> RST.11-12.1, RST.11-12.7, RST.11-12.9 WHST.9-12.2
California State Standards	<u>Science: Engineering Design</u> 3-5-ETS1-2 <u>Social Studies</u> 4.1, 4.2	<u>Science: Engineering Design</u> 3-5-ETS1-2	<u>Physical Science</u> MS-PS3-3, MS-PS1-6	<u>Science: Engineering Design</u> HS-ETS1-1, HS-LS2-1, HS-ESS3-1 <u>Physical Science</u> HS-PS2-3, HS-PS3-3, HS-PS1-6 <u>Earth and Space Science</u> HS-ESS3-2, HS-ESS3-4

Instructional Resources:

Background

- Please visit www.archive.cyark.org for a comprehensive history of El Camino Real de California.

Materials

- Access to CyArk's archive
- Access to the Internet for research, and GoogleEarth for more advanced classes
- Supplementary worksheets (included)
- Rulers
- Identity cards (for council members)

Procedure

Hook/Introductory Activity:

1. Give students a blank topography map with a clear X and Y axis (refer to **La Proxima Parada Map** in supplementary resources). Starting from the south, call out XY coordinates to the class (refer to the supplementary materials, but also feel free to expand or alter as needed depending on your classroom!). Each coordinate indicates the location of a mission along El Camino Real de California. For younger students, the XY axis is a good tool to practice plotting points. For more advanced students, try to give the latitude and longitude coordinates! If this approach is taken, ask students to plot each latitude/longitude location in GoogleEarth instead.
 - a. Test for comprehension: After two-thirds of the points have been plotted, pause and ask the students to make a prediction about the next location. They must think about average distance, and the most reasonable direction given the points they have already plotted. After they make their prediction, continue giving the rest of the points for the class to plot.

Lesson 1:

1. After the students have completed plotting their points on their XY grid or in GoogleEarth, prepare students to measure the distance between each location. Whether they are working with an XY grid or GoogleEarth, they must refer to the scale and measure each distance using a ruler.
2. Students must record each distance in an organized fashion. Once they have their list of distances, lead the class in a lesson about important mathematical terms:
 - a. **Average:** add everything together and divide the sum by the total number of units added.
 - b. **Mean:** the same as average! In statistics and higher math, the term *mean* is often preferred over *average*.
 - c. **Median:** this means the "middle value." You can determine the median by first ordering your values sequentially. If you have an odd number of values, the number in the middle

is your median. If you have an even number of values, the median equals the mean of the two middle numbers (the sum of the two middle numbers divided by two).

- d. **Mode:** the value that appears most frequently in your list. There CAN be more than one mode, and if no number repeats twice, there is NO mode!
 - e. **Range:** subtract the smallest value in your list from the largest value. This will give you the range of your set.
3. Ask the class:
 - a. What is the shortest distance between the Spanish missions in California? What is the greatest distance?
 4. As the students make their calculations, provide historical background of the California missions. Between the years 1683 and 1834, Spanish missionaries on the west coast of Mexico and California established numerous religious outposts, each within a day's ride from the next along what we call El Camino Real, translating to "The Royal Highway" or "The King's Highway" in Spanish. The missions were established originally to secure Spain's holding in the New World in the threat of other colonial and native entities. With the purpose of converting the native population to Christianity, the missions practiced much influence in land allocation, law making, and reform. These outposts today serve as concrete physical reminders of Spanish occupation and presence in California, and are vital in the telling of California's history as we know it today.
 - a. **Assignment:** in a well-constructed paragraph/essay, analyze the distances between the missions you calculated. What is the rationale behind their respective locations? What natural resources need to be closeby for survival? What is the average terrain? How are the missions different from the presidios?

Lesson 2:

1. In this segment, students will be introduced to the process of council meetings and legislative decision making. In groups, the students will be expected to present a convincing case to a "council" of their fellow classmates. To start off this activity, it is important for the instructor to model the decision making process through a mock council meeting to demonstrate what is expected during this activity.
 - a. Conduct a mock council meeting as a warm-up activity. Divide the class into 3 groups: the first group is "for," the second is "against," and the third is the jury or panel. Write any topic on the board – this topic should be simple, and it may be helpful to think of something directly relevant to the school at the time of the activity.
 - i. Example topics: should our school have uniforms? Should we have microwaves in the cafeteria? Should sports participation be mandatory?
 - b. Give the class 5 minutes to brainstorm in their group a convincing argument either "for" or "against" the topic issue. While the "for" and "against" teams plan their cases during these 5 minutes, talk with the third jury group about why it is important to remain impartial and assess each argument based on the logic of each case.
 - c. Give each group 2-5 minutes to present their case (it may be helpful to assign a spokesperson). After each side is finished presenting their case, call each spokesperson

back up to summarize their case again before the jury votes. Facilitate the jury vote, and declare the winner.

2. Now that the students understand the basic procedure of a trial or council meeting, divide the class into small groups (of 2 or 3). Ask each group to pull 1 label out of a hat – these labels will represent the various stakeholders living in and around the missions in the 19th century in California.
 - a. Stakeholder positions can be: military commanders, soldiers, friars, priests, Native Americans, farmers, etc. Include additional stakeholders that may be covered in class.
3. Show the class the map of California used in Lesson 1, and provide the following prompt:
 - a. It is 1830, and you are at the end of El Camino Real at Mission Sonoma. Why stop there? Imagine that you are in the position to propose the location of the next mission along El Camino Real. Where will you place the next mission after Mission Sonoma? Using the identity you selected from the hat, develop your decision as a case that you will present in front of the council. Conduct research about your stakeholder’s role and position within the mission community, and put together an argument defending your decision with convincing evidence as to WHY your location should be chosen over other proposed locations. What would be the name of this new mission? Why?
 - i. As you develop your argument, consider the following concerns: climate, military conditions, local tribes, terrain, economic gain.

Lesson 3:

1. Groups will present their cases to the class. After each group presents, a spokesperson can summarize the argument of each group before a class vote.

Extensions:

In high school classes, this activity can be extended into a longer research project. Why did the Spanish stop at Sonoma? Why did they not continue further north? In this research project, the students must compare timelines for all active agents in California and Mexico at the time, developing an understanding for the political climate in the early to mid-1800s.