

U.S. Department of the Interior Bureau of Land Management

> Standards Addressed: SS3.2, SS4.3, SS8.2, SS8.4, SS9.1

California Trail

The National California trail was used for westward migration during the California Gold Rush which took place in the 1800s. In this unit, students will explore different routes to California, learn about the impacts of cholera, and practice gold panning.

Objectives

- Students will learn about the California Trail and will recognize related vocabulary.
- Students will identify different travel routes to California.
- Students will decipher the dilemma infectious diseases passed along the trails.
- Students will recognize that medical treatment varied through time.
- Students will analyze the spread and treatment of cholera on a wagon train.
- Students will understand that gold panning required skill.

Preparation

Print the following handouts for each student.

- California Trail Overview
- Questions on the California Trail
- California Trail Vocabulary Review
- Cholera Tidbits Handout

Print and cut the Cholera Scenario Cards.

Spray paint dried rice to look like gold.

Rent or check-out The West Episode 3 by PBS.

Materials

- dried beans (2-3 types)
- tin pans
- dry long grain rice
- gold spray paint
- tweezers, chopsticks or straws

Directions

Lesson One: Introduction to the California Trail

Begin with a class dialog of the discussion questions to determine pe-knowledge of the California Trail. Then group read the *California Trail Overview*.

Assign each group to complete *Questions on the California Trail.* Signal to groups that the reporter will be randomly selected from each group. Review *Questions* as a class.

Discussion Questions

- Where is California on the map?
- Why did people want to travel to California in 1849?
- How did people travel to California in 1849?
- What interests you about the California Trail?

Utilize the Vocabulary Activity for individual work or homework.







Lesson Two: Cholera

Introduce cholera to the students by watching the story of William Swain on *The West*, Episode 3 produced by PBS. Students may also read Swain's diaries on the PBS website. Note from the episode that there was a 20% common mortality rate for cholera and the only potentially helpful treatment was laudanum.

Pass out the *Spread of Cholera Activity Cards* to all students in the class. (Group more than one student to a card if needed.) Read through the cards as a class in order from 1-18 and take breaks to host group discussions as prompted below. Cards are numbered to be read in order (1-18). Follow up with the *Cholera Tidbits* reading if students are curious about the disease.

Read Day One Cards (1-3). Discuss:

- What could have made the boy sick?
- What were his symptoms?
- Read Day Two Cards (4-5). Discuss:
 - Is it an infectious disease? How do you know? Is the disease potentially fatal to everyone?
 - How could the disease have spread?
 - How did they medically treat the disease?
- Read Day Three Cards (6-8). Discuss:
 - What can be done to prevent others from getting sick? Why did they not do it?
- Read Day Four Cards (9-11). Discuss:
 - Why did they travel while sick? Was traveling harmful?
- Read Day Five Cards (12-13). Discuss:
 - How has the disease progressed so far?
- Read Day Six Cards (14-16). Discuss:
 - What are some signs that the disease is infectious?
 - How is it being treated?
 - Has anyone named the disease?

Read Day Seven Cards (16-18). Discuss:

• How can we prevent the spread of infectious disease to others (even if we don't come in personal contact with them)?

(8-12 Expansion) In small groups, ask the students to research the cause and cure for cholera, identify the regions of the world where cholera is present, and offer solutions to halting the spread of the disease.







Lesson Three: Panning for Gold

Place several cups of the dried bean mixture into tin pans (different types of smaller beans are preferable.) Pour about 1/4 cup of the painted rice over the beans. (It is possible to substitute other small items like golden beads, etc.)

Explain to the students that they will become miners with the task of separating the gold (rice) from the gravel (beans). Students can explore their own method of separating the two items.

These suggestions may assist students:

• When the pans are shaken gently the rice will fall to the bottom of the beans. *Is there a way to skim the beans off the top to make finding the gold easier?*

• Introduce "mining tools" to the students (tweezers, chopsticks, or straws). Tell them they can't use their hands to pick up the gold.

When the students have successfully separated the gold from the gravel, lead a class discussion about the strategies they used to speed up the process. Link their answers to the variety of methods that Forty-niners used to find gold in the mountains of California.

8-12 Expansion

Utilize another class period for students to research the historical methods used to extract gold in California. Have small groups chose a method and present to the class the method, the implications of utilizing that method on the environment, and its impact on the health of the operators.



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Materials

- several types of beans
- tin pans
- gold rice
- tweezers, chopsticks, or straws





California Trail Overview

"Gold!" "Gold!" "Gold!" There is gold in California!

On January 24, 1848, a man by the name of James Marshall found gold in the American River. James was working on the construction of a sawmill for John Sutter, the owner of the land. John did not want the word to spread of gold on his property and tried to keep the discovery a secret. His secret did not last very long.

Word got out and the noteworthy news quickly spread across the globe. In fact, word of the gold spread faster abroad than to the American East coast. Ships to Asia and South America traveled quickly across the ocean with the news. Foreign prospectors began to flock to California. The Gold Rush was on.

It wasn't until President James Polk announced the discovery to Congress on December 5, 1848, that word began to spread along the East coast. Newspapers had made mention of it earlier, but many did not believe the stories. The President's announcement made it official. Within the upcoming months 1,400 ships, originating from the East coast and Canada, set sail for California.

Getting to California was rough. The gold seekers had a choice of three different routes. Each was dangerous for different reasons. The first route was by ship around the cape of South America. Strong winds and rough water made the voyage dangerous.

The second route was by ship to the Isthmus of Panama. The gold seekers would then have to disembark from the ship and walk nearly 50 miles to catch another ship going north along the west coast. Panama was infested with diseases transmitted by the hordes of mosquitoes. Sometimes travelers even had to wait months for a ship bound for California to arrive.

The last route was overland. These gold seekers were nick-named the "Overlanders". They followed the Oregon Trail until Wyoming or Idaho and then would turn towards California. Travel along the trail was filled with disease, accidents, toil and weariness. Cholera claimed the lives of many travelers on the trails during the California Gold Rush. Many others were claimed by the short cuts which turned out to be not so short.







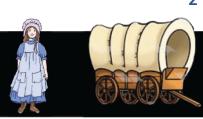
The gold prospectors made a big impact on California. "Forty-niners," named after the year of 1849 when everyone dropped everything to find their fortune, changed the face of California. Population rose from about 15,000 settlers in 1848 to nearly 100,000 settlers in 1850. San Francisco and surrounding port towns grew greatly. Unfortunately, needed supplies did not keep pace with the quick growth and many necessities were in fierce demand causing prices to skyrocket. The Forty-niners spent much of their hard found gold on needed supplies such as food, shelter, and clothing.

Discrimination became a problem in swiftly populated California. White Americans passed a Foreign Miners Tax in April 1850 charging \$20 a month to "foreign" miners. This tax was then repealed in March of 1851. Then once again in 1852 the tax was passed with a charge of \$3 a month. Panning was no longer as profitable, and the gold finds began declining. "Foreigners" unfairly took the brunt of the blame.

By the mid-1850s, the gold rush was mostly over in California. Prospectors settled down to other jobs or migrated back home.



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Questions on the California Trail

- 1. Who owned the land where gold was first found in California?
- 2. Where in California was gold found?
- 3. Who announced to the American people that gold was found in California?
 - a. Why did people listen to him and not the earlier reports?
- 4. Name the three routes of travel to California.



- 6. Name some difficulties experienced on the trail?
- 7. How do you think the Gold Rush changed California?





California Trail Vocabulary

| cholera | an infectious disease-causing profuse diarrhea, vomiting and muscle cramps which often led to death |
|----------------|---|
| discrimination | treating someone unfairly because they are different |
| foreigner | someone who comes from another country |
| Forty-niner | the California gold seekers of 1849 |
| gold rush | a sudden migration to new territory where gold has been found |
| migrate | to go to another place or country to find work |
| overlander | • travelers on the American east-west land trails (for example: The Oregon and California Trail) |
| Panama | country located at the narrowest connection between North America and South America |
| panning | utilizing a flat metal dish to separate gold from loose soil |
| prospector | an explorer typically looking for gold or other things of value |
| sawmill | a building where trees are processed into lumber |
| Sutter's Mill | the mill located in present day Coloma, California where gold was found in 1848 |

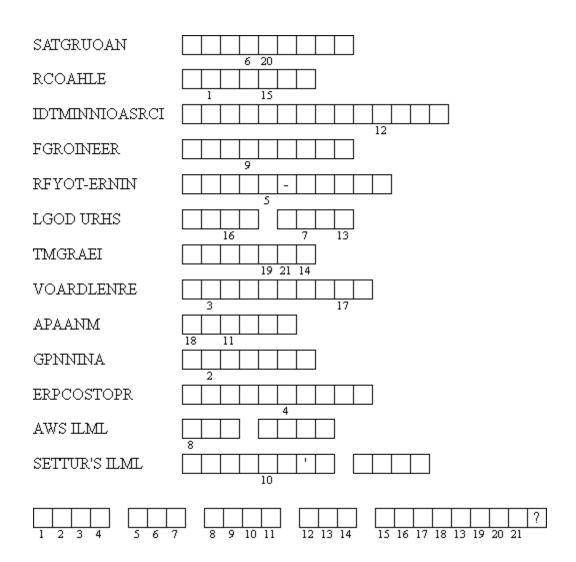




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California Trail Vocabulary Review

Unscramble the words.



Use the numbered letters to discover a common phrase on the California Trail.



The Spread of Cholera Activity Cards

| Card 1 Jos | hua B. | Card 2 Margaret B. |
|---|--------|---|
| Ag | е б | Age 25 |
| It is day one after leaving the Platte. You have muscle cramps and your head is burning up. You vomited up your breakfast this morning. | | Your son, Joshua, has a fever and has been vomiting all day. He is whiny and is constantly messing his pants. You are worried that the salt pork he ate was bad and have prepared a special tea to treat the diarrhea and fever. After cleaning Joshua you prepare dinner for the rest of the family. |
| Card 3 Paul | В. | Card 4 Willie S. |
| Age 27 | | Age 5 |
| At dinner your wife Margaret tells you that Joshua, your son is sick and laying in the back of the wagon. You go to check on him and notice that he is very still. As you get closer, you cry out because your son has died. | | It is day two after leaving the Platte. Your friend Joshua died yesterday, and you are not feeling well. Your body aches and the diarrhea has come so often that you can't run to a private spot anymore. |
| Card 5 Sallie | S. | Card 6 Catherine P. |
| Age 10 | | Age 12 |
| Your brother Willie has been very sick all day. Your mother treated him with the last of the laudanum in the medical kit. Now you are not feeling well either. You head to the sagebrush hoping you don't have diarrhea. | | Your friend Sallie died late last evening. Her brother Willie is also sick. Their grandfather is sick as well as several others in the train. The others helped bury young Joshua B. just the other day. |

| Card 7 Jacob P. | Card 8 Wagon Boss Guss |
|--|---|
| Age 15 | Age 42 |
| You return from several days away hunting to find sickness on the wagon train. Five have been buried, including your sister Catherine. Your father and nine others are too sick to travel. | You are three days out from the Platte and many members of your wagon train have fallen sick. You call a halt to the travel to allow the families to care for the sick and dig graves for the dead. You have seen this sickness before and avoid contact with the sick families. |
| Card 9 Charlotte Guss | Card 10 Reverend Michaels |
| Age 29 | Age 27 |
| It is day four from the Platte and the wagon train is moving on. You encouraged your husband to continue traveling to run away from the sickness. Stopping where the air was bad would not help the rest of the train. | In the past four days you have spoken at six burials. You reflect on the loss of the young and old. Today was a difficult day to travel because all the sick needed long periods of rest. You notice Willie is feeling better and you offer him encouragement. |
| Card 11 Margaret Michaels | Card 12 Mathew G. |
| Age 19 | Age 7 |
| You are scared because your husband is surrounded by the sick every day. You are pregnant and want to protect your baby so you wash your hands and are very clean in preparing food for your family as your father told you to do. Everyone says your father is strange, but no one in your family is sick. | It is five days from the Platte and you worry because your friend Joshua has died and Willie is still sick. Joshua's mother gives you Joshua's clothing to wear. |

| Card 13 Granny G. | Card 14 Anna G. |
|--|---|
| Age 52 | Age 25 |
| You have counted fifteen dead and twenty sick since the first signs of illness in the group. | It is day six from the Platte and your son Mathew has dysentery. You are unable to keep him clean and are constantly trying to slip him tea to drink. You will go ask Margaret Michaels for some laudanum for Mathew. Her father was a doctor so maybe she will have some. |
| Card 15 Henry G. | Card 16 Meg G. |
| Age 29 | Age 9 |
| Your wife Anna has been trying to get laudanum for your son Mathew and now Anna is showing signs of being sick. You ride to the wagon train a half a day ahead to find the medication. Many on that train are sick as well. You trade an extra horse for the bottle. | Your mother and brother have both taken laudanum. You care for them throughout the day and help your father with the oxen. |
| Card 17 Rachel F. | Card 18 James E. |
| Age 19 | Age 21 |
| It is day seven after crossing the Platte and the train comes upon a small watering hole. You and the other women gather around to wash clothing, including the clothes of those who are sick. | Your fiancée Rachel F. fell sick today. Ten others who had helped wash clothing died during the night. |

Cholera Tidbits

Cholera is a sickness caused by a bacillus (rod-shaped bacteria) called *vibrio cholera*. The *vibrio cholera* is so small you cannot see it with your eyes. You need a microscope to find it.

Cholera is spread by ingesting water, food or anything else that has been contaminated by the feces (poop) of a cholera victim. Symptoms include extreme diarrhea, very sharp muscle cramps, vomiting, and fever. Cholera is a scary sickness because its victims can die within 12-48 hours, mostly from dehydration (not having enough water in your body.) Most victims who are not dead 24 hours after their first fever are sick another five to seven days before getting better.

In 1817, there was a very large cholera epidemic (very large outbreak of sickness) which ran from India throughout Russia and into Europe. By 1827 cholera was the most feared disease in Europe. People did not know what caused cholera. After a second large cholera epidemic in England (1854), the British made links between cholera and unsanitary conditions, but the real cause of cholera was still unknown. Immigrants on the westward trails had no idea of the cause either. It wasn't until a German doctor discovered *vibrio cholera* in the feces of a cholera victim in 1875 that people understood the cause of the disease.

Today we know that sanitation and public health share a very important link. However, immigrants on the westward trails were unaware of how important handwashing and proper toilets were to staying healthy. For a while cholera was almost eradicated (wiped out of existence) in our world. Today, however, it is on the rise in many poorer countries.

Question to Ponder: How would you treat an infectious disease if you didn't know what caused it or how it spread?





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