



Mountains, Sinks and Deserts: The Physical Geography of the California Trail

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Grade Level	5
Duration	2 class periods

National Standards

GEOGRAPHY

Element 1: The World in Spatial Terms

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

3. How to analyze the spatial organization of people, places, and environments on Earth's surface

Element 2: Places and Regions

4. The physical and human characteristics of places

Element 3: Physical Systems

7. The physical processes that shape the patterns of Earth's surface.

Element 6: The Uses of Geography

17. How to apply geography to interpret the past.

AZ Standards

ELA

Reading

Key Ideas and Details

5.RI.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

Writing

Production and Distribution of Writing

5.W.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

MATHEMATICS

Geometry

5.G.A.2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.

Standards for Mathematical Practice

5.MP.2. Reason abstractly and quantitatively.

5.MP.4. Model with mathematics.

Arizona Social Science Standards

GEOGRAPHY

The use of geographic representations and tools help individuals understand their world.

5.G1.1 Use and construct maps and graphs to represent changes in the United States.

Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.

5.G3.1 Use key historical events with geographic tools to analyze the causes and effects of environmental and technological events on human settlements and migration.

HISTORY

Cycles of conflict and cooperation have shaped relations among people, places, and environments.

5.H2.1 Use primary and secondary sources to summarize the causes and effects of conflicts, resolutions, and social movements throughout the historical timeframe.

Overview

Today's students have no idea of the feat it was to travel across the vast expanses of the United States before trains, planes, and automobiles. Students need to appreciate how the physical geography of modern-day Nevada and California greatly impacted travel to California in the 1800s. The

terrain will not only determine the routes that would be feasible but also the technology needed to make these routes more accessible by others when building roads and railroads.

Purpose

In this lesson, students will learn about the physical geography of the trail to California in order to better understand the experiences of the travelers.

Materials

- The Oregon and California Trails (1849-1850) map unlabeled
https://geoalliance.asu.edu/sites/default/files/LessonFiles/GeoHistory/WarrenCaliforniaTrail/OR_CA_map_student.pdf
- The Oregon and California Trails (1849-1850) map labeled
https://geoalliance.asu.edu/sites/default/files/LessonFiles/GeoHistory/WarrenCaliforniaTrail/OR_CA_Map_Labeled_Key.pdf
- Projection device
- Colored pencils, crayons, or markers
- Student worksheet #1, The Physical Geography of the California Trail
- Student worksheet #2, Map Activities
- Student worksheet #3, Elevations Along the California Trail
- Graph paper
- Assessment sheet
- Photos of locations along the California Trail
- Atlases or map of the United States (optional)

Objectives

The student will be able to:

1. Describe physical features of the California Trail.
2. Compare primary and secondary source descriptions of locations along the California Trail.
3. Graph elevations along the California Trail.

Procedures

Prerequisite Skills: Student should have knowledge of the time period known as Westward Expansion and the Oregon Trail. Students should have knowledge of how to graph one variable.

SESSION ONE

1. Begin the lesson by discussing what students already know about the discovery of gold in California and the rush of individuals to that state in the latter half of the 1800s. Discuss other reasons for travel to California in the 1800s (e.g., new land, other economic opportunities).
2. Hand out the unlabeled map of The Oregon and California Trails (1849-1850) and project the labeled version. Have students locate the route

from Independence to where it left the Oregon Trail and then to Sacramento, California.

3. Hand out the student worksheet #1, The Physical Geography of the California Trail. Have students read together from the worksheet the information and primary sources describing the physical geography of the different sections of the trail. Inform students that the primary source writings have not been corrected for grammar or spelling. (Teacher may want to read these sections aloud if students have difficulty understanding the writing.)
4. As each section is described (Great Basin, Humboldt River, Humboldt Sink, 40-Mile Desert, Truckee River, Sierra Nevada Mountains/Donner Pass), locate it on the map. Be sure students understand the explanations of the physical processes that shaped the various physical landforms.
5. Reread the journal comments while viewing the photos of the locations along the route. Explain that the photos were taken in the 1900s, after the event, and are secondary sources. The journal entries were written as the event occurred and are primary sources. Have students describe any differences.
6. Hand out student worksheet #2, Map Activities, and have them complete the activities on their map. They may use a map or atlas for assistance.
7. End session by reviewing the variety of physical features encountered by travelers on the California Trail.

SESSION TWO

8. Begin the session by reviewing what students learned about the physical geography of the California Trail in Session One.
9. Hand out student worksheet #3, Elevations Along the California Trail and graph paper.
10. Explain that another way to understand the difficulty of the trip is to look at the changes in elevation travelers faced along the route. Discuss the difficulties travelers would have taking wagons over rugged mountain ranges. Review worksheet directions and scoring system with students and have them complete the worksheet.
11. After worksheets have been completed, review the lesson by discussing the route in terms of difficulty due to physical features.
12. Have students complete the assessment for the lesson using the Assessment sheet.

Assessment

Social Sciences and ELA

In the Assessment, students will write one fact about the physical geography of the different portions of the California Trail for a total of six facts. Mastery will be considered a score of 80%, or five correct facts.

Social Sciences

Map activities (Worksheet #2) may also be used for assessment purposes. Ten points are possible. Mastery will be considered a score of 80% or eight correct items.

Mathematics

The elevation graph can be graded for accuracy. Mastery will be considered 32 points or 80%.

Extensions

Visit the website of The California National Historic Trail at <http://www.nps.gov/cali/index.htm> This National Park site has information about the history of the trail, as well as photos of locations along the entirety of the trail from Independence, Missouri.

Compare the Truckee Route to other routes of the California Trail (e.g., Carson Route, Lassen Route) in terms of physical geography and difficulty.

Show the photo of *Mitchell's Map of 1846* used by some travellers. Discuss the accuracy of the map and its usefulness to the emigrants.

Have students pretend to be a traveller on the trail and write about their experiences.

Sources

Churchill, Stillman. Diary, 1849 (2 volumes). The Library of Congress, American Memory Website.

Cobbey, John Fumes. Journal, 1850. Overland Trails Diaries. Utah Academic library Consortium. Online Collections at BYU.

Cone, Gordon C. Diary, 1849-1850. Overland Trails Diaries, Utah Academic library Consortium. Online Collections at BYU.

Jackson, Edward. Diary, 1849. The Library of Congress, American Memory Website.

Kimball, Violet T. *Stories of Young Pioneers: In Their Own Words*. Missoula, MT. Mountain Press Publishing Co. 2000.

Stewart, George R. *The California Trail*. New York. McGraw Hill Co. 1962.

Trails West. The National Geographic Society. Washington D.C. 1979.

Photos:

Overland Trail Images: Humboldt River, Forty Mile Desert (3 photos), Donner Summit and Donner Pass, made available for educational use: Courtesy of Special Collections, University of Nevada-Reno Library

The Road to California, Echo Canyon and Donner Campsite from The National Park Service: <http://www.nps.gov/cali/index.htm>

Map: *The Oregon and California Trails Map*, Arizona Geographic Alliance. *The Oregon and California Trails Map*, <http://geoalliance.asu.edu/azga/>