



Locating Canyon Diablo

Students learn about maps and transportation while looking at this ghost town.

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Grade Level	4-8
Duration	3-4 class periods

National and Arizona Geography Standards

National Geography Standards

Element One World in Spatial Terms

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information.

Element Four Human Systems

12. The process, patterns, and functions of human settlement.

Arizona Geography Standards

Strand 4 Geography

Grade 4

Concept 1 The World in Spatial Terms

PO3. Construct maps using symbols to represent human and physical features.

PO4. Construct charts and graphs to display geographic information.

Concept 4 Human Systems

PO1. Describe the factors (push and pull) that have contributed to the settlement, economic development (e.g., mining, ranching, agriculture, and tourism), and growth of major Arizona cities.

Concept 6 Geographic Applications

PO1. Describe the impact of geographic features (e.g., rivers, mountains, resources, deserts, and climate) on migration and the location of human activities (e.g., exploration, mining, transportation routes, and settlement patterns).

Grade 5

Concept 1 The World in Spatial Terms

PO6. Construct maps, charts, and graphs to display geographic information.

Grade 6

Concept 1 The World in Spatial Terms

PO1. Construct maps, charts, and graphs to display geographic information.

Concept 4 Human System

PO2. Describe the environmental, economic, cultural, and political effects of human migrations and cultural diffusion on places and regions.

Concept 6 Geographic Applications

PO3. Describe ways geographic features and conditions influenced settlement in various locations (e.g., near waterways, on high terrain, with adequate fresh water, on good land for farming, in temperate climates) throughout different periods of time, places, and regions.

Grade 7

Concept 1 The World in Spatial Terms

PO1. Construct maps, charts, and graphs to display geographic information.

Concept 4 Human System

PO5. Analyze the effects of settlement (e.g., quality of life, transportation, population density) on places.

Grade 8

Concept 1 The World in Spatial Terms

PO1. Construct maps, charts, and graphs to display geographic information.

Concept 6 Geographic Applications

PO1. Describe ways geographic features and conditions influence history.

Overview

Students will look at different types of maps in locating this ghost town. They then will use math skills to calculate transportation routes to Canyon Diablo from Phoenix.

Purpose

Students will use mapping skills to locate Canyon Diablo. They will compare and contrast different types of maps and then will use math skills to determine if the train would still be the best way to travel there.

Materials

- Access to the internet or print outs of the following websites:
<http://www.mapquest.com/maps/map.adp?city=Canyon%20Diablo&state=AZ&country=us>
<http://www.ghosttowns.com/states/az/canyondiablo.html>
<http://www.legendsofamerica.com/AZ-CanyonDiablo.html>
<http://teraserver.microsoft.com/image.aspx?T=1&S=15&Z=12&X=76&Y=608&W=1>
- Arizona Atlas
- Markers, colored pencils, plain paper, writing materials

Objectives

The student will be able to:

- Research a place using the internet

- Gather information from maps to determine location and distances
- Calculate distances using a map
- Determine best travel options between locations in Arizona and Canyon Diablo

Procedures

Introduce the topic of ghost towns. Have the students brainstorm what they know about ghost towns and have them list and discuss any ghost towns they have been to or have heard about.

Then tell them they are going to research an actual ghost town in Northern Arizona called Canyon Diablo. Inquire to see if the students know what the name means. Students draw a map of Canyon Diablo, to scale, including the proposed bridge.

Have them look up the websites listed or provide paper copies of the maps. Discuss the different maps and their purposes. Compare and contrast the maps as a large group noting differences, purposes, and similarities on the board.

Review the different resources available on the Canyon Diablo website about train routes. Have the students determine distances between their hometown, Flagstaff and other locations in Arizona to Canyon Diablo. Have groups of 3-4 create a mathematical story problem relating to distance from an Arizona location and Canyon Diablo and / or time traveled. Check to make sure no locations are duplicated.

Pass around the story problems from group to group, allowing groups to find the answers and record on their own sheets of paper. After each group has found an answer to each question discuss the answers. Ask questions such as: Which location was the furthest/closest? Will it be best to travel via train or car? What would be quickest travel routes?

Have the students write a persuasive essay either in groups, pairs or individual. They should persuade the class what would be the best class trip they could take going to at least 3 locations – including Canyon Diablo. In their essay they should include distances, a timetable and their reasoning those locations would be the best places to visit on their trip. The students would then create a map with a key for their trip and present their proposal to the class.

Assessment

Students will be assessed for their mathematical calculations, their persuasive essay and map, and for their presentation. Students should include the distance and time traveled in their essay as well as at least 5 reasons their trip would be the best. They should include a map with a title and key and basic features such as travel routes, train routes, highways, and cities/towns. The essay should be evaluated using the 6-trait rubric for Word Choice, Ideas and Content and for Voice. A 4 rating in each category would be considered satisfactory.

