

Traversing the Terrain: Transportation in Arizona (1853)

Author
Grade Level
Duration

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High School
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

Element 2: Places and Regions

4. The physical and human characteristics of places

Element 5: Environment and Society

15. How physical systems affect human systems

Element 6: The Uses of Geography

17. How to apply geography to interpret the past

AZ Standards

ELA

Reading Integration of Knowledge and Ideas

11-12.RI.7 Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in print in order to address a question or solve a problem.

Writing

Production and Distribution of Writing

11-12-W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience

Arizona Social Science Standards

GEOGRAPHY

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

HS.G1.1 Use geographic data to explain and analyze relationships between locations of place and regions. Key tools and representations such as maps, remotely sensed and other images, tables, and graphs

Human-environment interactions are essential aspects of human life in all societies.

HS.G2.1 Analyze interactions within and between human and physical systems.

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

HS.G3.1 Analyze the reciprocal nature of how historical events and the diffusion of ideas, technologies, and cultural practices have influenced migration patterns and the distribution of human population.

HISTORY

The development of civilizations, societies, cultures, and innovations have influenced history and continue to impact the modern world.

HS.H1.1 Explain the process of state-building, expansion, and dissolution.

HS.H1.2 Explain and compare how social, cultural, and environmental factors influenced state-building, expansion, and dissolution.

Overview

Getting from one place to another has not always been easy. Students typically overlook the convenience and practicality of modern transportation. Most students don't ponder how governments and city planners determine the routes they use daily. But in order for students to be good decision makers and citizens, they should be able to take into account the multiple factors that influence transportation routes and the contemporaneous forms of transportation in our growing nation.

Purpose

In this lesson students will work in pairs to design four transportation routes through the state of Arizona in the year 1853. Since there were already established trails for the movement of people and goods relating to early exploration of Arizona, students will take into account the physical geographic features that either impede transportation or contribute to the ease of travel.

Background Information



By 1853, the boundaries of the present day contiguous United States were, with the exception of the distant states of Alaska and Hawaii, established following lucrative purchases from the French and Spanish with the additional annexation of Indian and Mexican lands. Arizona was originally a Spanish land holding, and then became part of the New Mexico Territory so named in 1850. It grew in size with the southern addition of the Gadsden Purchase in 1853 and was briefly the Confederate Territory of Arizona during the Civil War from 1861 to 1863. Then renamed the Territory of Arizona from 1863 until it became the last of the “lower 48” to be granted statehood on February 14, 1912.

Before American settlers moved west, Arizona was inhabited by several Native American tribes, most notably the Anasazi and the Hohokam, who laid the foundations for the organization of the greater Phoenix Metropolitan area through their use of a sophisticated canal system. Early Spanish explorers and missionaries traveled to Arizona beginning in 1540 with the conquest of Francisco Coronado and his men in search of gold. Later, priests in the 1600s came to convert Native Americans to Catholicism through the use of the mission system. American exploration in the mid 1800s was conducted mostly as settlers moved west to California in search of gold or south from Utah for settlement in religious enclaves.

Materials

- *Traversing the Terrain: Transportation in Arizona (1853)* Student Handout
- *Traversing the Terrain: Transportation in Arizona (1853)* Rubric
- *Arizona’s Topography and Rivers* Map <https://geoalliance.asu.edu/sites/default/files/maps/AZTOPO.PDF>
- *Important Rivers, Streams and Washes of Arizona* Map <https://geoalliance.asu.edu/sites/default/files/maps/Az-rivers-key.pdf>
- *Historical Development of Arizona and New Mexico Boundaries* Map https://geoalliance.asu.edu/sites/default/files/maps/Historical_AZ.pdf
- *Arizona Biomes* Map https://geoalliance.asu.edu/sites/default/files/maps/AZ_biomes_web.pdf
- *American Exploration of Arizona* Map https://geoalliance.asu.edu/sites/default/files/maps/AZ_explor_American.pdf

- *Mormon Exploration of Arizona* Map https://geoalliance.asu.edu/sites/default/files/maps/AZ_explor_Mormon.pdf
- *Major Arizona Railroads and Roads (circa 1940)* https://geoalliance.asu.edu/sites/default/files/maps/RR_1940.pdf
- Graph paper
- Rulers
- Markers
- Crayons/colored pencils
- *Blazing Trails: Discovering Routes through Arizona to California (Teacher’s Key)* Map https://geoalliance.asu.edu/sites/default/files/maps/AZ_explorers.pdf

Objectives

The student will be able to:

1. Construct a map of Arizona and create transportation routes in order to understand the push and pull factors that attracted people to and through Arizona.
2. Label cities and geographic features, such as rivers, lakes, and canyons, correctly on a map.
3. Express information on feasible and practical overland routes of transportation as the United States grew during the period of Westward Expansion.
4. Analyze the historic needs for well-constructed paths for travel.

Procedures

SESSION ONE

1. Introduce the lesson by giving each student the *Traversing the Terrain: Transportation in Arizona (1853)* Student Handout.
2. Divide students into pairs and supply each pair with a piece of graph paper and 4 maps (they should be copied front to back to save paper in the following order). Ask the accompanying question(s) to make sure that students are aware of how to use each map.
 - (1) *Arizona’s Topography and Rivers* Map

Q: *What is topography?*

A: Topography is the three-dimensional representation of a surface, in this case the state of Arizona. It shows the relief or terrain of an area and sometimes identifies the elevation of specific landforms in the region shown on the map.

Q: *What is elevation as shown on the map key?*

A: The elevation of a geographic location is its height above an established point of reference, which in this case is of this map is sea level.

(2) *Important Rivers, Streams and Washes of Arizona* Map (note: for ease of creating travel routes, we are assuming that if the map indicates a wet (v. dry) source of water then there is regular water flow in 1853)

Q: How does this map indicate in which direction rivers flow?

A: The use of arrows.

Q: Does it matter in which direction rivers flow?

A: Yes, because it becomes harder, in most cases, to travel against the current.

(3) *Historical Development of Arizona and New Mexico Boundaries* Map

Q: In what year was Arizona's present-day southernmost boundary established?

A: 1853 with the acquisition of land according to the Gadsden Purchase.

(4) *Arizona Biomes* Map

Q: What major biome covers southern Arizona?

A: Desert

Q: Why is this an important factor to consider when making transportation routes?

A: It is important to consider the landscape and vegetation in order to make logical choices about where and how to travel across the state.

3. Read the *Overview* and *Background* sections of the *Traversing the Terrain: Transportation in Arizona (1853)* Student Handout with the students. Share the rubric for grading the map and the questions.

4. Have students work in dyads with teacher monitoring to complete the tasks on the handout in the *Directions* section while answering the questions in the *Questions* section of the handout.

SESSION TWO

5. Have students continue to work in dyads.

6. Have students read and answer the questions in the *Questions* section of the *Traversing the Terrain: Transportation in Arizona (1853)* Student Handout if they have not already done so. Some students will notice that some of the questions are questions that were discussed as a class when the lesson was introduced.

7. When all groups have complete their maps or time is up (10 to 15 minutes before class time ends) Give each pair a copy of the *Blazing Trails: Discovering*

Routes through Arizona to California (Teacher's Key) Map and the *American Exploration Map*. Compare and contrast their routes to those established by early explorers and settlers in Arizona and answer question six in the *Questions* section of the student handout.

8. Project the *Major Arizona Railroads and Roads (circa 1940)* map to show eventual development of these trails/routes.

Assessment

Social Sciences

The *Traversing the Terrain: Transportation in Arizona (1853)* Rubric is to be used for grading the maps. Mastery will be considered a score of 16 points or higher out of the 20 points possible.

Social Sciences and ELA

The *Traversing the Terrain: Transportation in Arizona (1853)* Student Handout has a section of Questions to be answered by students as they complete their map. Mastery will be considered a score of 80% or higher on the student handout.

Extensions

Students could visit a local museum, i.e. The Arizona Historical Society Museum and compare their transportation maps to those either on display or in museum records. This could be done on the Internet if a field trip is not feasible.

Students could research historic travels through Arizona such as The Honeymoon Trail (see *Mormon Exploration of Arizona* Map), the Gila Trail, General Crook Road, etc., and present the historical significance of these routes in the development of the state of Arizona.

<https://azstateparks.com/historic-trails-of-arizona>

Sources

Arizona Geographic Alliance Maps: Various maps listed in Materials. <https://geoalliance.asu.edu/maps>

Perry Castenada Maps: American Exploration Map http://www.lib.utexas.edu/maps/united_states/exploration_1850.jpg

Cook, James E. *Arizona Pathways: Trails of History*. Phoenix: Arizona Department of Transportation, 1989.

