Arizona: Let’s Plan a Road Trip

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Grade Level
4-5

Duration
3 class periods

National Standards

GEOGRAPHY STANDARDS

Element One: 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 Two: Places and Regions
6. How culture and experience influence people’s perceptions of places and regions.

Common Core Standards (AZ College and Career Ready Standards)

ELA
Reading
Informational Text
Integration of Knowledge and Ideas
5.RI.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
4.RI.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
5.RI.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

Language
Vocabulary Acquisition and Use
4.L.6 and 5.L.6 Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the College and Career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Speaking and Listening
Presentation of Knowledge and Ideas
4.SL.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5.SL.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
4.SL.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
5.SL.5 Include multimedia components and visual displays in presentations when appropriate to enhance the development of

Other Arizona Standards

SOCIAL STUDIES STANDARDS

Grade 4
Strand 4: Geography
Concept 1: The World in Spatial Terms
PO 1. Use different types of maps to solve problems (i.e., road maps—distance, resource maps—products, historical maps—boundaries, thematic maps—climates).

Grade 5
Strand 4: Geography
Concept 1: The World in Spatial Terms
PO 6. Construct maps, charts, and graphs to display geographic information.
main ideas or themes.

**MATHEMATICS**

**Number & Operations in Base Ten**

4.NBT.B.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.

5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.

5.NBT.B.7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

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**TESOL Standard(s)**

**ESL: English for Content**

Through The Use Of ESL Methodologies, The Student Will:

EFC-A. Create, read, and interpret visual information relating to science, social studies, and math.

A5. Create visuals to present information.

**EFC-B. Use math skills to calculate and measure.**

B1. Add and subtract numbers.

B2. Multiply and divide fractions and decimals

**EFC-C. Compose in a variety of forms.**

D1. Prepare and present oral reports.

D2. Participate in small and large groups.

**EFC-E. Comprehend reading materials.**

E6. Scan material for relevant information.

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**Arizona English Language Proficiency Standards**

**Stage III**
Arizona has many exciting cultural traditions and natural resources that can be used for entertainment. But with each of these choices come costs. The costs might be measured in distance, time, money, gasoline, and energy. All of these costs add into making decisions.

### Purpose

In this lesson students will use Google Maps to plan a trip and also learn about diverse entertainment options in Arizona. This lesson includes strategies for diverse learners (ELLs).

### Key Vocabulary

**mileage**: distance in miles

**admission**: the price paid for entrance

(synonyms: fee, cost, tickets, price, rate)

**address**: a location of a place that uses numbers, street names, cities, states, and zip codes

(synonyms: location; contact information, map directions)

**destination**: the place to which a person or something travels

(synonyms: place, point, area, spot, arrival site)

### Materials

- Arizona Roads map
- Internet access
- Computer lab

- Bookmarked websites: Google Maps, various Arizona tourist sites, Google Images
- Arizona Road Trip Worksheets
- Landmarks in Arizona map
- Arizona Road Trip Presentation (Tasks and Guidelines)
- Scoring Guide for Arizona Road Trip
- Calculators (as needed)
- Arizona Road Trip: Summary

### Objectives

The student will be able to:

1. Conduct research about culturally or historically significant destinations in Arizona and locate addresses and pricing information using the internet.
2. Create a road map using Google Maps and use the information to calculate mileage costs.
3. Present the road trip using acquired vocabulary, costs, drawings, and the Google map.

### Procedures

**Notes to Teacher**: Familiarize yourself with using Google maps and adding multiple addresses. Be familiar with + symbol under the search box on the left side which is expandable to add another address. Use the “List all steps” link (also under the expandable search box) to see mileage broken down by each destination. Return to the map by clicking on “View full map” link on the top right side of the map image. Save map by clicking on the tiny icon of a gear in the bottom left side of the screen, choose “Share and embed map”, check “Short URL”, and write down the address. You can come back to this map and add more destinations later using the link; however, you must save each map after each session. It will have a new URL each time.
Prior to Lesson: Bookmark some popular Arizona landmarks, attractions, and cultural events so students who need the extra help will have it. Prepare a handout on one tourist destination in Arizona that is also identified on the Arizona Landmarks map.

Prerequisite Skills: Students should know the cardinal and intermediate directions. Students should know how to multiply decimals using a calculator, as needed.

SESSION ONE

Engage:

a. Ask students if they have ever traveled around Arizona, how they got to the destination, what they did there, and how they felt about the destination. (Preparation: Linking to Background)

b. Tell the students they will be planning a trip in Arizona. They will be using maps, the internet, and a budget to plan this trip. (Application: Linked to objectives)

c. Tell them they will be traveling in groups of four. (Grouping Option: Small groups)

Explore:

a. Distribute a teacher prepared or commercially available handout of a destination in Arizona to each student. Allow the students time to read and discuss the information with each other. (Application: Promotes Engagement)

b. Ask the groups to identify the cities associated with the destinations on the map. Ask the students to figure out a way to travel from one destination to another using a map, as if they were in a car. (Application: Hands on)

c. Before sharing map and routes with the large group, have students share within their small groups so that ELLs have an opportunity to rehearse their answers. (Integrating Process: Speaking)

d. Ask groups to share out their ideas. (Integrating Process: Listening)

e. Ask groups to think about ways they could improve how they would travel, either a shorter distance or in a different order of destinations. (Integrating Process: Listening)

f. Let students know that over the next couple days they will be researching and using Google Maps to plan a road trip in Arizona. (Scaffolding: Comprehensible Input, Meaningful, Guided practice)

SESSION TWO

Explain:

a. Explain the task using the Arizona Road Trip Presentation (Tasks and Guidelines) and Arizona Road Trip Worksheets. Working in groups of 4, students will plan a trip through Arizona as if they were traveling in a car. Be sure to explain:

- Each group must visit at least 4 locations or destinations in Arizona and they must be culturally or historically significant.
- The group can only spend $700, and cannot go over $700.
- This budget must cover admission costs for four people and mileage.
- This trip must begin and end at the school. (Scaffolding: Comprehensible Input)

b. Model on the whiteboard how to calculate mileage. For simplicity, use the operating costs of gas for a medium sedan in 2013 from AAA of $0.15 per mile. (Scaffolding: Modeling)

c. Model how to complete the task with a completed teacher model on Google Maps and with a completed student worksheet. (Scaffolding: Modeling)

d. Discuss the vocabulary words with the students; mileage, admission, and address. Write them on the board so that students can see them and add to this list. Discuss synonyms for these words since students may need to use inferencing skills while navigating websites in search of these items for their maps. (Preparation: Linking to Background)

Elaborate:

a. Pass out the Arizona Road Trip worksheets and Landmarks in Arizona maps. Working in groups of four, groups will begin their internet research to find destinations or events in Arizona to include in their road trip. If sites have been bookmarked, students can begin promptly. (Application: Linked to Objectives)

b. Each student in the group will choose one destination and draw a fictional picture of their group enjoying themselves at the destination. They should also complete the Arizona Road Trip: Summary. This should be like a social media post, like a real picture someone might post to Facebook or Twitter.
Arizona: Let's Plan a Road Trip

This picture and summary should be used later during the group presentations. The teacher should use this opportunity for a formative assessment for each individual and as a group. (Assessment: Individual)

Evaluate:

a. Each group will give a presentation of their road trip graded by a scoring guide using a self-evaluation and a teacher evaluation. Students should use and describe the maps, drawings, and calculations in their group presentation. This will be a summative assessment. (Assessment: Group)

b. After all the presentations, the teacher should guide a discussion about the destinations or activities to do in Arizona. Ask the students to group the destinations by cost, location, or activity type. Ask the students to make an evaluation or generalization about the things to do and see in Arizona. Are there many things to do? Exciting things to do? Is it an exciting place to travel through? Why or Why not.

Assessment

Students will be evaluated with the Scoring Guide for Arizona Road Trip in the following areas:

Reading

Informational Text:
Students will score 3 out of 4 points for mastery in using details to show knowledge on the subject or destination.
Students will score 80% or higher on completeness and correctness of information on the Arizona Road Trip: Summary.

Speaking and Listening:
Students will score 9 out of 12 points for mastery in giving an organized or sequenced presentation, using the map appropriately, and speaking clearly and at an understandable pace.

Language:
Students will score 3 out of 4 points for mastery in correctly using vocabulary recently and previously learned.

Mathematics:
Students will score 9 out of 12 points for mastery in strategies for addition, subtraction, and multiplication. Evidence for strategies must be shown, not just correct answers.

Geography:
Students will score 3 out of 4 points for mastery in creating a map with the destinations correctly identified on the map.
Students will score 80% or higher on completeness and correctness of information on the Arizona Road Trip: Summary.

Extensions

Students can create a more complex multimedia presentation using Google Treks, PowerPoint, Prezi, etc.

Students can create other maps that include details from fiction or other topics currently being studied.

Students can create a class bulletin board with printed maps, drawings, summaries, and generalizations typed and posted.

Sources

Arizona Road Map
http://geoalliance.asu.edu/sites/default/files/maps/az_roads.pdf

Google Maps
www.google.com/maps

AAA’s Your Driving Costs

Recommended sites for bookmarks:
www.visitarizona.com
www.arizonaforvisitors.com
www.placetoseeinarizona.com

http://www.tripadvisor.com/Attractions-g28924-Activities-Arizona.html
http://www.virtualtourist.com/travel/North_America/United_States_of_America/Arizona/Things_To_Do-Arizona-TG-C-1.html

Google Treks tutorial:
http://googletreks.org/tutorial/index.htm