



## A GEOGRAPHIC LESSON

# Road Trip across Texas & New Mexico

### GEOGRAPHY

3.5(B) use a scale to determine the distance between places on maps and globes;

3.5(C) identify and use the compass rose, grid, and symbols to locate places on maps and globes;

3.5(D) draw maps of places and regions that contain map elements including a title, compass rose, legend, scale and grid system.

4.6(A), 5.6(A) apply geographic tools, including grid systems, legends, symbols, scales and compass roses, to construct and interpret maps;

4.6(B), 5.6(B) translate geographic data into a variety of formats such as raw data to graphs and maps;

5.7(C) locate the fifty states on a map and identify regions such as New England and the Great Plains made up of various groups of states.

### SOCIAL STUDIES SKILLS

3.16(A) obtain information, including historical and geographic data about the community, using a variety of print, oral, visual and computer sources;

3.16(B) sequence and categorize information;

3.16(E) interpret and create visuals including graphs, charts, tables,

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This lesson encourages students to review longitude and latitude coordinates, as well as mapping skills to locate and learn about different National Park Service sites in Texas and New Mexico. Students, working in groups, will research different sites and share their information with the class.

*\* This lesson is designed to follow a series of sessions that discuss the history and significance of Chamizal National Memorial. However, the lesson can be modified to use this park as one of the sites researched by the student groups. \**

Objectives: Students will

- Locate Chamizal National Memorial and other regional National Park sites on a map.
- Compare estimated and actual latitude and longitude coordinates for Chamizal National Memorial and other National Park sites.

- Use the internet to find latitude and longitude coordinates and research the significance of NPS sites in Texas and New Mexico.
- Construct a road map showing how to get to different park sites from a common starting point.
- Construct a more detailed map focusing on park information such as the location of public facilities, recreation areas, places to eat, sleep, etc., found in different National Parks.
- Present research in front of the class.

Materials:

- Internet Access
- Pencils, Writing Paper
- Glue, Scissors
- Crayons, Markers, Color Pencils
- 2 sheets of 11" x 17" paper per group
- Brochures of regional National Park sites (optional)

Time:

Six 45-minute classroom sessions

Procedure:

### ***Introducing the Concept***

Revisit concepts concerning longitude and latitude coordinates by looking at a world map. Remind students that longitude lines run north and south on a globe, and measure the eastern or western distance of a location from the prime meridian. Latitude lines run east and west on a globe, and measure the northern or southern distance of a location from the equator. Have students locate the Memorial on the world map and write down their estimates of the longitude and latitude coordinates of the park. Compare student estimates with actual coordinates. Reflect on the significance of the Memorial and some of the activities students and their families can expect to participate in while visiting the park.

Review previous day's lesson. Have students name well-known park sites such as Grand Canyon National Park, Yellowstone National Park, Statue of Liberty National Monument and Gettysburg National Military Park. Ask students to find each site on a continental U.S. map and

write down what they think may be each site's longitude and latitude coordinates.

Ask students to also write down what they think the climate of each site would be compared to Chamizal National Memorial just based on longitude and latitude coordinates.

Send students to the internet to find the coordinates for each park site and compare their estimates with what they found on-line. Inform students that most sites will detail the degrees, minutes and seconds of the site's coordinates. Also ask students to compare their estimates of climate conditions with actual information found on the website.

*Recommended Site USGS – Geographic Names Information System: [geonames.usgs.gov/pls/gnispublic](http://geonames.usgs.gov/pls/gnispublic)*

### ***Learning the Concept***

Break students into groups of 2-3. Assign each group a National Park site in Texas or New Mexico. Note that there are 25 sites, excluding the scenic river area and historic trails. Each group will be required to research the individual site and construct a four-sided diagram (see page 3) to present their information.

For each of the NPS sites, students will have to break

down researched information into four distinct sections.

Section 1 Answers the *What* question

- Park Name
- Mission of the site
- Images of the park
- What the park is most known for
- Student Names who worked on this project.

Section 2 Answers the *Where* question

- Student drawn scaled road map or pre-printed map from Chamizal National Memorial (or school) to the researched park
- Incorporate as much of the **Date, Orientation, Grid, Scale, Title, Author, Index, Legend and Sources (or DOGSTAILS)** as appropriate in the student map
- Written Driving Directions from Chamizal National Memorial to the researched park
- Longitude and Latitude Coordinates/ Distance from Chamizal National Memorial
- Time Zone (if different from starting point)

Section 3 Answers the *So* *What* question

- What does this site preserve or protect?
- Park History
- What are some of the major issues park rangers

face while trying to service the public and protect the resource?

- Additional Images of the park
- Timeline (if appropriate)

#### Section 4 Answers the *How & Logistical* questions

- How do people enjoy or use the park? What is there to do?
- Hours, Fees
- Climate conditions
- Height of visitation (when do most people visit this park?)
- What people should know about visiting the park
- Map of the park itself (include DOGSTAILS information)
- Resources available (restaurants, bathrooms, hotels, etc.)

#### *Constructing the three-dimensional diagram*

1. Use two sheets of paper. Fold each in half; however, be sure to fold one side  $\frac{1}{2}$  an inch shorter than the other side. This will form a tab that is  $\frac{1}{2}$ -longer than the other side.
2. Fold the tab over the short side of the sheet.
3. On one of the folded papers, place a small amount of glue on the tab and place the non-folded edge of the second sheet squarely into the folded tab. Press flat until

the glue holds.

4. Repeat with other side. Allow the glue to dry completely before continuing.

#### ***Review Learned Concepts***

Each group will present their research and diagram in front of the class. Ask students specific questions as to how knowing the longitude and latitude coordinates of a site can clue potential visitors in what they can expect to encounter while visiting the park. Display student work in a predominate area of the classroom or school building.

*Adapted from National Geographic's Xpeditions classroom lessons and Dinah Zike's Big Book of Projects. Illustrations from Dinah Zike's Big Book of Projects.*

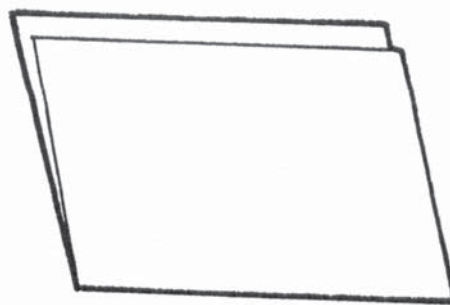


Diagram Steps  
1 & 2

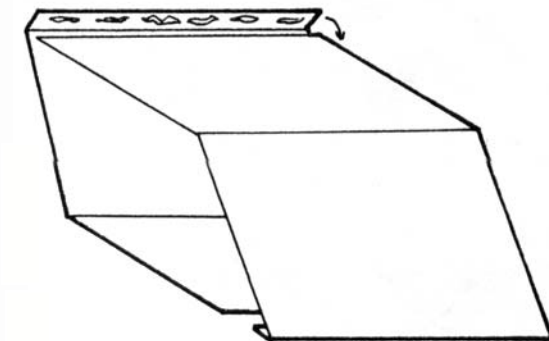
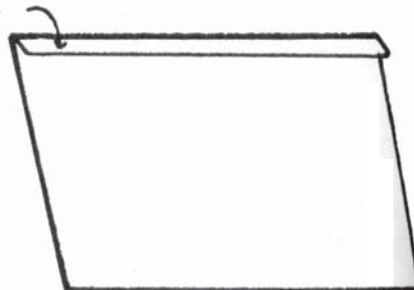


Diagram Steps  
3 & 4

*Continued from Page 1*

timelines, illustrations and maps; 3.17(A), 4.23(C), 5.26(C) express ideas orally based on [knowledge,] research and experiences; 3.17(B), 4.23(D), 5.26(D) create written and visual material [such as stories, poems, pictures, maps and graphic organizers]; [journal entries, reports, graphic organizers, outlines, and bibliographies]; 3.17(C), 4.23(E), 5.25(E) use standard grammar, spelling, sentence structure and punctuation; 3.19(F), 4.22(F), 5.25(F) use appropriate mathematical skills to interpret social studies information such as maps and graphs; 4.22(A), 5.25(A) differentiate between, locate and use primary and secondary sources to acquire information about selected world cultures or the United States; 4.22 (C) organize and interpret information in outlines, reports, databases, and visuals including graphs, charts, timelines, and maps; 4.23 (B), 5.26 (B) incorporate main and supporting ideas in verbal and written communication.

# Road Trip Rubric

Category	Mastery (25 points each)	Proficient (20 points each)	Adequate (15 points each)	Needs Improvement (10 points each)
<b>Cartographic Skills</b>	Exhibits exceptional cartographic skills by correctly identifying longitude/latitude coordinates, accurately incorporating all map elements, and by providing an accurate, concise and descriptive summary of driving directions.	Exhibits proficient cartographic skills by correctly identifying longitude/latitude coordinates, accurately incorporating most map elements, and by providing an accurate and descriptive summary of driving directions.	Exhibits adequate cartographic skills by correctly identifying longitude/latitude coordinates, accurately incorporating some map elements, and by providing a summary of driving directions.	Exhibits less than average cartographic skills incorporating few map elements.
<b>Literary Response - Writing Mechanics</b>	Exhibits exceptional language skills by using interesting vocabulary, superb grammar, and sites sources for researched information.	Exhibits proficient language skills by using appropriate vocabulary, correct grammar most of the time, and sites sources for researched information.	Exhibits adequate language skills by using some appropriate vocabulary and correct grammar some of the time	Exhibits less than average language skills by using inadequate vocabulary and poor grammar
<b>Skillful Use of Media</b>	Exhibits exceptional skills in use of media and mapping techniques. Well organized diagram, use of plentiful, appropriate images/colors, easy to comprehend.	Exhibits proficient skills in use of media and mapping techniques. Well organized diagram. neat final product, appropriate use of images/colors, easy to comprehend.	Exhibits adequate skills in use of media and mapping techniques. Neat final product, some use images/color, some-what easy to comprehend.	Exhibits less than average skills in use of media and mapping techniques. Poorly organized diagram, limited used of images/color, hard to comprehend.
<b>Participation</b>	Exhibits extraordinary conversational skills and generously contributes to group discussion. Participates fully in group work and encourages peer participation.	Exhibits proficient conversational skills and frequently contributes to group discussions. Participates fully in group work.	Exhibits adequate conversational skills and occasionally contributes to group discussions. Participates in group work.	Exhibits less than average conversational skills and seldom contributes to group discussion.