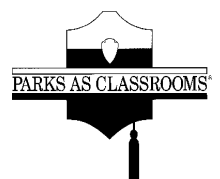




A Discovery of Cultures: Past and Present

An Educator's Guide to Big Bend National Park's
Fourth Grade Outreach Education Programs





"I hear and I forget.
I see and I remember.
I do and I understand."

Parks as Classrooms

Boiled down to its purest essence, the National Park Service's *Parks as Classrooms* program is all about helping children understand their world. It is a concerted nationwide initiative to utilize the wonderful resources of the parks for teaching and learning purposes- in the process, education becomes active, experiential and fun.

The parks, after all, *are* classrooms. They are battlefields and Presidents' houses, where history was made. They are canyons and deserts, where geological processes have been played out for eons. They are historic trails, over which pioneers migrated and intermingled and resettled. They are monuments to civil rights leaders, where the lessons of cultural heritage are real and vivid. They are seashores and preserves, where a million forms of life offer daily lessons in biology, botany, evolution and survival amidst an endangered ecosystem. The national parks, in essence, help textbooks and lesson plans come to life. *Parks as Classrooms* is an idea whose time has come. Visit the National Park Service's homepage (<http://www.nps.gov/>) to explore these classrooms.



Big Bend's Classroom

Big Bend National Park protects and preserves 801,000 acres of land in the State of Texas. The park, exhibiting the best Chihuahuan Desert expanse in the United States, shares a 118-mile border with the Mexican states of Coahuila and Chihuahua. Educating school children from the United States and Mexico on the importance of protecting this unique and fragile environment will encourage a sense of stewardship and ensure the protection of this ecosystem for future generations. The park preserves three distinct ecosystems; riparian, desert, and mountain. Differences in elevation, rainfall, and temperature throughout the park have created the biological diversity found here. There are 450 species of birds, 75 species of mammals, 3600 species of insects and more than 1500 species of plants protected within the park's boundaries.

Big Bend National Park has initiated an intensive environmental education outreach program, bringing to area classrooms programs designed to meet the Texas State Curriculum Guidelines. This guide, one in a series, was developed to help you prepare your students for an in-class program by park staff. Through preparation, a student benefits much more from this experience. This guide includes background information to help you, the educator, understand more about the subject matter being covered. The pre- and post-visit activities included in this guide are an important component of the program. We hope this program will encourage you to bring your students to the park to experience and utilize this valuable resource as part of your teaching curriculum.





Visiting Your Classroom

We look forward to visiting your classroom and introducing your students to “Parks as Classrooms.” Big Bend’s outreach program is designed to encourage students to become active owners of the National Park System and impart a sense of stewardship toward park resources. Through education, students will be inspired to learn more about the wonderful resources available in our national parks.

Each program has incorporated a variety of learning styles so that students may assimilate information using their preferred learning style. Learning styles include hands-on, seeing, hearing, reading and group discovery. Before our visit to your classroom, please review the background information provided and work with your students to complete the pre-visit activity. By preparing your students before our visit, students will have a greater understanding of the information presented.

Teachers are expected to participate with students during the presentation and provide discipline as needed. It is helpful if the students have name tags or name plates. We have included a list of the Texas Essential Knowledge and Skills (TEKS) covered in our programs. This list will help you meet the curriculum guidelines required by the state. Each program will last approximately one hour.





Texas Essential Knowledge and Skills (TEKS)

Fourth Grade

SCIENCE

4.1 Scientific processes - Student will

(A) demonstrate safe practices during field and laboratory investigations.

4.2 Scientific processes - Student will

- (A) plan and implement descriptive investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology.
- (B) analyze and interpret information to construct reasonable explanations from direct and indirect evidence.
- (C) communicate valid conclusions.

4.3 Scientific processes - Student will

- (B) draw inferences based on information related to promotional materials for products and services.
- (D) evaluate the impact of research on scientific thought, society and the environment.

4.5 Science concepts - Student will

(A) predict and draw conclusions about what happens when part of a system is removed.

SOCIAL STUDIES

4.1 History - Student will

- (A) identify Native-American groups in Texas and the Western Hemisphere before European exploration and describe the regions in which they lived.
- (B) compare the ways of life of Native American groups in Texas and the Western Hemisphere before European exploration.

4.2 History - Student will

(A) summarize reasons for European exploration and settlement of Texas and the Western Hemisphere.

4.4 History - Student will

(D) describe the effects of political, economic, and social changes on Native Americans in Texas.

4.7 Geography - Student will

(A) describe a variety of regions in Texas and the Western Hemisphere such as political, population and economic regions that result from patterns of human activity.

4.8 Geography - Student will

- (B) explain patterns of settlement at different time periods in Texas.
- (D) explain the geographic factors that influence patterns of settlement and the distribution of population in Texas, past and present.





Texas Essential Knowledge and Skills (TEKS)

Fourth Grade

SOCIAL STUDIES continued

4.9 Geography - Student will

- (A) describe ways people have adapted to and modified their environment in Texas, past and present.
- (B) identify reasons why people have adapted to and modified their environment in Texas, past and present, such as the use of natural resources to meet basic needs.
- (C) analyze the consequences of human modification of the environment in Texas, past and present.

4.10 Economics - Student will

- (A) explain the economic patterns of various early Native American groups in Texas and the Western Hemisphere.
- (B) explain the economic patterns of early European immigrants to Texas and the Western Hemisphere.

4.20 Culture - student will

- (A) identify the similarities and differences within and among selected racial, ethnic and religious groups in Texas.
- (B) identify customs, celebrations, and traditions of various culture groups in Texas.
- (C) summarize the contributions of people of various racial, ethnic, and religious groups in the development of Texas.

4.22 Social Studies Skills - Student will

- (A) differentiate between, locate, and use primary and secondary sources such as computer software; interviews; biographies; oral, print, and visual materials; and artifacts to acquire knowledge about the United States and Texas.
- (B) analyze information by sequencing, categorizing, identifying cause and effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions.
- (C) organize and interpret information in outlines, reports, databases, and visuals including graphs, charts, timelines and maps.

4.23 Social Studies Skills - Student will

- (C) express ideas orally based on research and experiences.
- (D) create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies.

4.24 Social Studies Skills - Student will

- (A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution.



Background Information

NATIVE AMERICANS OF THE BIG BEND

It is largely believed that the first inhabitants of North America came across the Bering Land Bridge from Asia thousands of years ago (40,000 - 13,000 years). Since so much of the Earth's water was in the form of glaciers, the oceans were lower and the Bering Land Bridge opened between Siberia and Alaska.

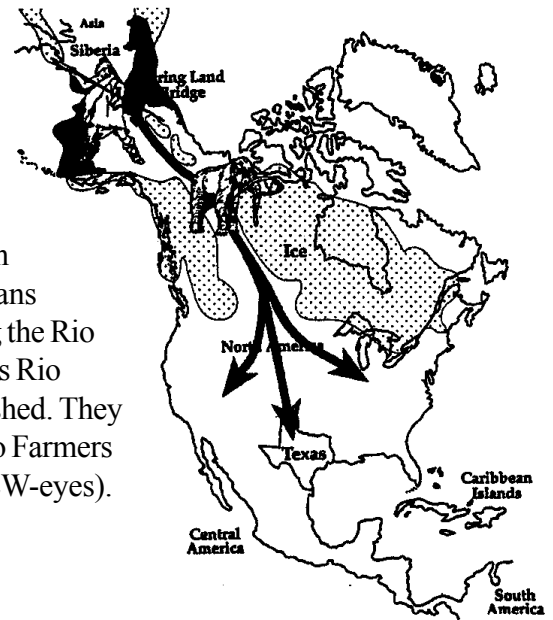
The first Americans crossed this bridge following and stalking herds of large mammals. Between 9200 BC and 6000 BC, as the large mammals of the Ice Age disappeared, people were already living in the land area we call Texas. From 6000 BC to 500 AD, the Archaic Period, small to medium sized game animals were hunted using the atlatl.

The atlatl was a special spear that could be thrown harder and further than other spears. During the late Prehistoric Period, 500 AD to 1500 AD, Indians began using the bow and arrow, making pottery, and growing crops. Along the Rio Grande from 1200 AD to 1400 AD some late Prehistoric Indians known as Rio Bravo Farmers had a pueblo-like culture. They grew crops, hunted, and fished. They live in adobe-brick structures that were partly underground. The Rio Bravo Farmers were later replaced by a group called the Patarabueyes (Pah-tah-rah-BUEW-eyes). They lived in villages along the Rio Grande.

From 1500 AD to present, the Historic Period, Texas Indians were more nomadic, following the buffalo. When Europeans entered North America, the lives of Native Americans were changed forever. The explorers and settlers introduced the natives to horses, guns, iron, railroads, and devastating diseases.

Four main groups of people lived in the Big Bend region during the period: the Jumanos, Apaches, Comanches, and Kiowas. Few of the Texas Indian cultures that were present in the beginning of the Historic Period now live within the boundaries of Texas. By 1880 they had essentially been forced out of the state or destroyed. Only three small reservations exist today in Texas. The Tiguas live in east El Paso (Ysleta). They are descended from the Pueblo Indians of New Mexico and settled there in 1860. The Kickapoos live near Eagle Pass in South Texas. The Alabama-Coushattas live near Big Thicket in East Texas. The Kickapoos and Alabama-Coushattas moved into Texas from the east in the 1800's. Only three small reservations exist in Texas today. The Tiguas live in east El Paso (Ysleta). They are descended from Pueblo Indians of New Mexico and settled there in 1680. The Kickapoos live near Eagle Pass in South Texas. The Alabama-Coushattas live near Big Thicket in East Texas. The Kickapoos and Alabama-Coushattas had moved into Texas from the east in the 1800's.

Much of what we know about the Native American cultures of Texas was obtained by anthropologists and archaeologists. Anthropology is the science of studying the culture, behavior and evolution of people. Archeology is a branch of anthropology, that studies people in the past. Archaeologists study past lifeways by excavating the places people once lived. Archaeologists are detectives, scientists and reporters. They piece together clues left behind to obtain an idea of how the early people lived. The following details on the main tribes who used the Big Bend area were gathered by anthropologists and archaeologists.



JUMANOS

The Jumanos were hunters and traders of the south plains. They were believed to have roamed as far north as Santa Fe and as far east as the Gulf of Mexico. They probably travelled south into Chihuahua, Mexico and west to El Paso. The people encountered in this region were referred to by the Spanish and French explorers as Jumanos. They usually called any native with facial tatoos a Jumano. The Jumanos seemed to be closely linked to the Patarabueyes, who were farmers along the Rio Grande. Today, we have no idea if they were actually the same group of people or not. In fact, their place on the map, the language they spoke and their role in history have remained for the most part a mystery.

The Jumanos according to early journals were common in Texas and New Mexico prior to 1700. They had well established trade routes following rivers, especially the Rio Grande, Pecos and Conchos rivers. The trade route was organized throughout the southwest and southern plains and involved a high degree of coordination and specialization of function. Outlying rancherias served as trading posts where goods were stored and exchanged. Food-stuffs, natural resources and handicrafts were processed and produced in quantity. Goods were accumulated, transported and stockpiled at trade centers. Jumanos produced arrows, mined salt and pearls and harvested pinion nuts and bred horses. They traded with other natives for shells, pottery, textiles, turquoise, peyote and surplus crops (corn, tunas, mesquite beans). In the later years of trade in Texas, they conveyed a wealth of Spanish goods including coins, silver, silk and fabrics. The northern branch of Jumanos also traded buffalo by-products.

By the 1690's the Jumanos trade network was collapsing. The northern areas of trade were taken over by other Native Americans. The Jumanos alliance with several bands was severed and the Comanches were increasing. By 1716, the Spanish noted the Southern Jumanos were now allies of the Apaches. The Apache had been moving into the plains and occupying the heart of traditional Jumano territory. The Northern Jumanos are believed to have become part of the Wichita or Caddo tribes or maybe the Kiowas. The last remnants of Jumanos were mentioned by the Spanish near Presidio, Texas. There is no mention of Jumanos after 1888. What actually happened to the Jumanos remains a mystery.

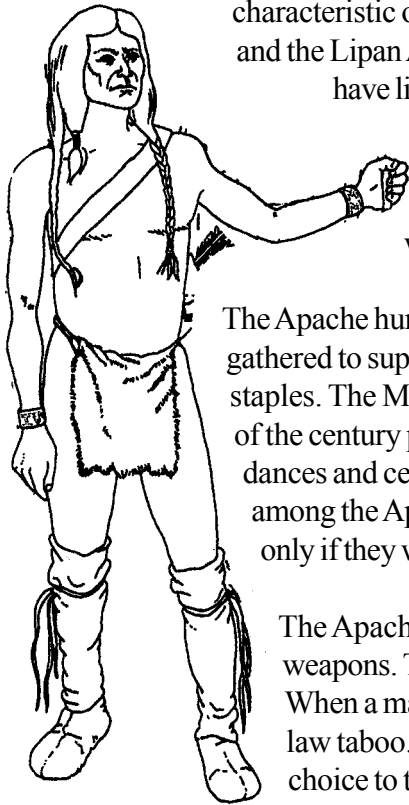


Background Information

APACHE

In the late 1400's the Apaches began moving southward, fighting the inhabitants for possession of the land. They learned and borrowed cultural elements from the other tribes. They were named Apache by the Zuni, it meant enemy. By the 16th and 17th centuries the Apaches were the predominate people of the south plains. The Apache are often credited with being the nomadic raiders who caused the abandonment of some Pueblo cities, pre-Spanish days. The Apaches believed anyone who was not an Apache was an enemy. They were a people of the mountains but were equally at home in the desert wastes. Their powers of endurance, ability to live off the land, their skill in eluding pursuers and surprising their foes are legendary. The Apache male who killed the enemy without being killed and stole from the enemy without being caught was honored and admired. The Apache had high morals within the tribe. Members did not lie to, steal from, or kill another Apache. They paid their debts, were generous and loved their families.

The Apache tribe was a loosely knit organization of independent bands, each with its own leader. Bands usually derived their names by some geographic feature, descriptive of the main area they settled or perhaps by a characteristic of the tribe. Two bands of Apaches utilized the Big Bend, the Mescalero Apaches and the Lipan Apaches. These two bands shared similar cultural practices. They were believed to have lived from spring to harvest time in rancherias (small villages), planting and harvesting crops. In the fall, the group left to hunt buffalo on the plains until the next spring. Their homes in the rancherias were wickiups. A shelter built by the women from saplings, brush and dirt. The Lipans were also known to use tepees, especially when hunting.



The Apache hunted deer, elk, bighorn sheep, and sometimes bison. They relied on the plants they gathered to supplement their diet. Acorns, tunas, mesquite beans, sotol and mescal (agave) were staples. The Mescalero Apaches received their band name because they roasted and ate the heart of the century plant. The Apaches were a sociable and religious people. They had many feasts, dances and ceremonies. They loved to play games and gamble. There was a true democracy among the Apache. The group decided upon a given course of action, following the chief's advise only if they wanted to.

The Apache men served as leaders, warriors and raiders. They also made and cared for the weapons. The women controlled everything else. The women were skilled basketmakers. When a man married he went to live in his wife's community. The Apaches had a mother-in-law taboo. A man could have as many wives as he could support. He was, however, limited in choice to the sisters and cousins of the first wife.

The Apaches were perfectly acquainted with the country that they inhabited, for hundreds of miles around. They knew every spring, water hole, canyon and crevice. However, in the late 1700's they began to have problems with the Comanche. The Comanche raided their rancherias and caused the Apaches to abandon them. The Mescaleros left most of Texas, retreating to the Guadalupe and Sacramento Mountains of New Mexico. The Lipans moved southward into Mexico.

The Apaches as a group were among the last to surrender to the European settlers and go to the reservations. It is one of the reasons they are so well remembered. Many Apaches were sent to Florida as prisoners of war. Many of their children were sent to Indian School in Carlisle, Pennsylvania. In 1894, the Florida prisoners were sent to a reservation in Oklahoma. Many later decided to go to the Mescalero reservation near Ruidosa, New Mexico.

Background Information

COMANCHE

The Comanche were the lords of the southern plains for over 150 years. The word Comanche is from the Ute word, *Komantcia*, which means anyone who wants to fight me all the time. The Comanche were believed to have split from the Shoshone due to similar customs and language. The Shoshone moved northwest and the Comanche moved southeast. The Comanche settled into the southern plains. Once the Comanche acquired the horse they were truly masters of the plains. The Comanche were the richest of the tribes in horses. Successful warriors owned 50-200 horses. They got their horses by gift, trade, raiding and breeding. The Comanche knew more about horses and their breeding than many other Native Americans. Many of their games and contests involved the horse. The horse was an intimate household friend. With the horse they achieved greater mobility, mastered the buffalo and had an exchangeable asset, so they became master traders, fierce cavalymen, dangerous warriors and raiders. With the horse they could go further, escape easier and carry more after raids. Throughout the Big Bend, there ran a network of trails by way of known waterholes. The settlements in the Big Bend and down into Mexico were isolated and poorly defended. The Comanche raided these settlements and returned with captives and horses. On raids, men were usually killed, the women and children became captives and slaves, many eventually were adopted by the tribe.



The Comanche people were short and heavy. The men averaged 5'6", the women 5' tall. They travelled in bands that were loosely organized. Each band centered its activities in a vaguely defined territory within the Comanche country. Any Comanche was free to settle, hunt or move within the region. The Comanche relied most heavily on the buffalo. No part of the buffalo was wasted. Comanches would also hunt and eat elk, bear, deer and antelope. Coyote was a "demi-god", so members of the dog family were never eaten. They did not grow their own vegetables but the women did harvest plants as they travelled. Men were responsible for the hunting, raiding, fighting, saddlemaking, weapons and flint work. Women were in charge of the household including food gathering and preparation, clothing and shelter construction. They were also in charge of the transportation and moving of all the household goods and tepee. Comanches usually only had two children and their births were spaced far apart. Male children were favored. Both boys and girls learned from their extended family. They could ride a horse well by age 6. Girls were usually married by 16 to a man chosen and accepted by the girls' father. Men typically waited to marry until they were almost 30 and had enough horses to present as a bridal gift. Men often had several wives, marrying sisters and captives.

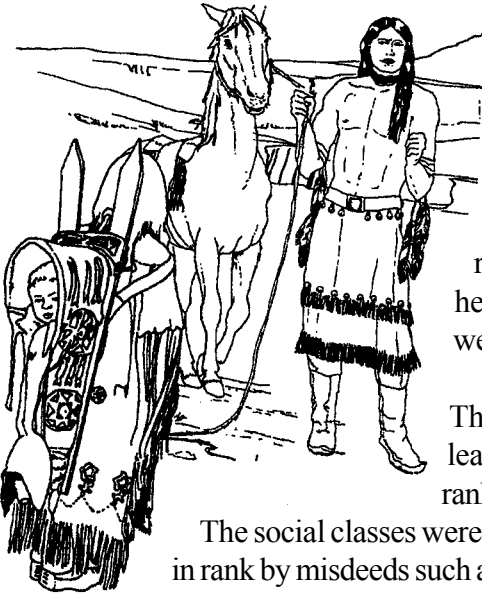
Comanche religion was largely individualistic. The sun, earth and moon were considered deities. All the animals and insects were attributed certain powers. Only the horse wasn't given special powers. Vision quests were common. Smoking was associated with power and it was a sacred and ceremonial act, often used in council meetings. The council was comprised of a peace chief, a war chief, and council members. The chiefs rose to position based on their personality, knowledge and ability to persuade. The council acted as mediators not judges. War honors provided the basis of rank and social status. Comanches went to war to protect hunting territories, for glory, and revenge. Comanches would count coup and sometimes take enemy scalps as proof of their war exploits. The Comanche were enemies with the Apaches but friends with the Kiowa. Today many Comanches live in southern Oklahoma, south of their old allies the Kiowa.

Background Information

KIOWA

The Kiowa lived near the headwaters of the Yellowstone River and the Black Hills. At some point, pre-1700, they began to move southward. As they moved south, they met and formed an alliance with the Crows. By the 1770's they moved further south into western Oklahoma, the panhandle of Texas and eastern New Mexico. Although a small group, the Kiowas became famous for their military control of the southern plains. Kiowa people were taller and thinner than the Comanche. They were dependent on the buffalo but also ate deer, antelope, and goats. They collected limited amounts of roots and berries. Fishing, agriculture, baskets, pottery and weaving were nonexistent. Their skills in the working of skins was highly developed and they lived in teepees. They used dogs and horses for transportation, and were nomadic. Kiowas were skilled in horse breeding and used horses for hunting, raiding, warring, and as gifts.

Like the Comanche, there was a division of labor among the sexes. Women took no part in the tribal government. Women cared for the teepees, setting up, packing and moving of the household goods. They harnessed and packed the dogs and horses. Women prepared the food and cared for the children. On the hunt, cutting and packing of the buffalo meat and hides was woman's work. Women also tanned the hides and made the clothing. They herded the horses and saw to their welfare with the help of captives. Captives helped the women in their duties. Captives that showed bravery and fortitude often were adopted into the tribe. Girls married at 14, boys at 16. Husbands lived with the wife's band and often married sisters. Tribal custom required that husbands could not talk or interact with their mother-in-law. This helped keep the peace in the family. Men hunted, raided, made weapons and went to war. Only men could be leaders.



The Kiowas had 7 bands, each band had its own chief that was subject to the leadership of a tribal head chief. There were distinct social classes based on rank. Rank was obtained through military exploits, religious power, and wealth.

The social classes were not static. The men rose in rank with important deeds and acclaim. They sank in rank by misdeeds such as lying, stealing from or killing fellow Kiowas and by moral weakness. The Kiowa also had a soldier society. There were five levels determined by age, achievement and social rank. The top level contained the most skilled warriors- the Dog Soldiers. The Kiowa worshiped the sun, moon, earth and animals. They participated in annual sun dances. The sun dance was held to obtain dream visions, cure illness, and to secure material benefits from the sun, the source of all life. The sun dance served to regenerate the buffalo and life. It was a social time that cemented the union of the tribe. The Kiowa never lived full time in the Big Bend but frequently travelled through the area to Mexico. The Kiowa formed alliances with the Comanche, Cheyenne, and Arapaho tribes. By joining forces, these tribes kept the Europeans away from the southern plains for many decades. Eventually however, in part due to superior weapons and numbers and the effects of white man's diseases, the Kiowa were conquered. Today, they live north of the Comanche in southern Oklahoma.

PICTOGRAPHS & PETROGLYPHS

Most Native American cultures did not have a written language like we do today. Their stories were passed down by word of mouth or through their art. One type of art that has lasted more than a thousand years is rock art. There are two types of rock art: **pictographs** were painted on the rocks and **petroglyphs** were pecked into the rocks.

Petroglyphs were typically made by hitting the rock surface with a tool. Sometimes a chisel-like tool made of antler, bone or a hard rock (flint or chert) was hit with a hammerstone. By creating a series of dots and then connecting the dots, a rough pitted picture emerged. Sometimes petroglyphs were also made by grinding or scratching lines into the rocks. Pictographs were made using powdered minerals (such as cinnabar that was mined in Terlingua and Mariscal for quicksilver), charcoal, plant juices (Sangre de Drago or leatherstem) or blood. The charcoal could be applied directly to the rock. However, the minerals, plant juices and blood were usually mixed with oil, egg whites or plant juices to make a stickier and longer lasting paint. Brushes from yuccas or lechuguilla, sticks, fingers, or corn husks were used to apply the paint.

What do the pictures mean? Some are obvious, like sketches of plants and animals. Others, however require a knowledge of their stories, ceremonies and religion. Some are a mystery. Many of the early cultures who did rock art have died out. The message left behind has been lost forever. We do not know why the pictographs and petroglyphs were made. Some ideas include; to mark the landscape - trails, water holes, territory, etc; to record history- events in the tribe's life or artist life; for skywatching - to record celestial events (a site in N. Arizona is believed to record the super nova of 1054); for hunting purposes- prayers for successful hunts or to show hunting areas; to tell a story; to record a dream or Vision Quest; as part of a spiritual ceremony; or for drawing, just to draw.



Rock art has lasted over a 1000 years but the sites are being threatened and destroyed. How? Natural causes include rockfalls, floods, rain, wind, erosion, plant roots cracking the site, sunlight bleaching, and lichens growing over rock art. Natural causes are slow. Man made causes are fast and include bullet holes, collectors, graffiti, rubbings, development in once isolated areas (Petroglyphs National Monument in Albuquerque), acid rain, air pollution, dams and reservoirs (Lake Powell and Amistad NRA), touching (oil from hands) and being walked on.

How can we protect these sites? By creating National Parks and Monuments, passing laws, education, diversion (teach to make their own marks elsewhere), and encouraging photography.

Why should we protect pictographs and petroglyphs? They are keys to the past. They are beautiful. They may be able to be deciphered in future and we may learn some "great secrets" of the past. They are a nonrenewable resource since the artists who created the rock art are no longer living. They are lasting reminders of the important connection between people and the land.



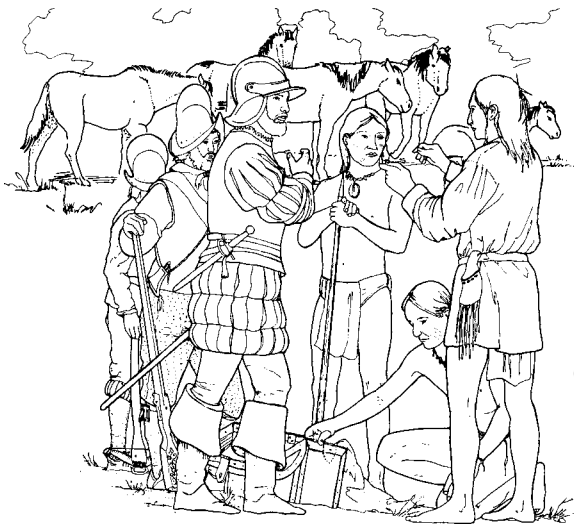
Background Information

CONQUISTADORS

Christopher Columbus was an Italian, born in Genoa. He was an educated man of great experience. He had one purpose that consumed him-to discover what was unknown about the world. The most pressing concern in the late 1400's was to find a direct sea route to India. Columbus wanted to find this route, but had trouble securing financial backing for the voyage. Columbus appealed to the rulers of Portugal, England, France and Spain. Finally, he received backing from King Ferdinand and Queen Isabella of Spain. Columbus was promised the position of Lord Admiral of the ocean seas and Viceroy and Governor of all islands and continents which he discovered. He was allowed to retain one tenth of all wealth he found and would receive a salary for the positions he held. Columbus promised to keep a journal and prepared himself for the journey.

On August 3, 1492, Columbus sailed for the Canary Islands with three ships, the Santa Maria, Nina and Pinta. Each ship had a pilot, navigator/first officer, and surgeon. There were 87 people total. They reached the Canaries on August 9th and set sail again September 6th. On October 12, 1492 land was spotted and Columbus believed he was in the islands near India, so he named the natives Indians. Columbus did not realize until later he had discovered a new world. Columbus made several more journeys to this "new world." In 1498 he "discovered" South America, landing at Venezuela.

There were many stories and fables associated with the new world. These stories encouraged their exploration and included tales of amazon women, giants, pygmies, dragons, and cyclops. It was believed the Fountain of Youth was located in the new world. The most believed fable involved the seven enchanted cities of Cibola. These cities supposedly were founded by seven Portuguese bishops who fled before an Arab invasion in the 8th Century. The Cibola cities were rumored to hold vast quantities of gold and treasure.



Once begun, exploration of the New World expanded greatly. The West Indies and nearby areas were explored. By 1518, the Spanish began exploration of the mainland of Mexico. Hernando Cortez was appointed Captain General and was commissioned to explore and colonize new lands for Spain. By 1521, Cortez had conquered the Aztec and imprisoned their ruler Montezuma. In 1528, Panfilo de Narvaez sailed to the west coast of Florida. Once in Florida, Narvaez instructed half of his command to sail from Florida along the coast toward Mexico. He commanded the other half to go west on foot and the two were to

meet at the mouth of the Rio Grande. The marching men (over 400) disappeared even though the ship looked for them along the coast for almost a year. In 1536, Alvar Nunez Cabeza de Vaca appeared in Mexico with three other weary travellers. He told fantastic tales of the land to north, the hardships they had faced and their adventures. Cabeza de Vaca had lived for a year on Galveston Island and then for 5 years on the mainland. The men were slaves to the American Indians until 1534, when the four ran away and met friendly Indians who believed they were gifted doctors. They began to roam and work "curing" the natives, always heading west. Eventually, they encountered some natives who had contact with the Spanish. De Vaca believed he had travelled over 6000 miles by the time he returned to Mexico. De Vaca was the first European know to enter the Trans-Pecos region.

In 1540, Vasquez de Coronado began an expedition in search of the seven cities of Cibola. Coronado found and conquered Cibola (old pueblo of Zuni) but he found no gold, only stored food. Coronado set up camp at the pueblo of Granada and from there many expeditions started out. Hernando de Alvarado explored the Pecos River and the plains of

Background Information

Texas. He brought back an Indian prisoner who spoke of a huge river to the east, called Quivira, and gold and silver. Quivira was not found. Coronado accused the prisoner of lying and had him shot. In December 1541, Coronado had a riding accident and lost his will to explore and returned to Mexico. Coronado's expedition was considered a failure because he failed to locate vast treasures like those found in Mexico. Explorations to Texas and the northern frontier were limited for the next fifty years.

In the 1550's a debate arose in Spain over whether an Indian was a human being or a natural slave. In 1573, new regulations from the King granted, at least in principle, the Indian his humanity. People from Spain slowly began to emigrate to the New World. The Spanish realized they had a vast territory now to explore, colonize and christianize. They also realized that treasures could now be mined from the land. As silver was discovered, the colonies in Mexico expanded. Settlements in New Mexico and the Rio Grande Valley also began to increase. However, west Texas remained for the most part isolated and unsettled until late in the 17th century. Antonio de Espejo did enter Texas in 1582 at La Junta (Presidio). He travelled up the Rio Grande and then down the Pecos rivers. He was believed to have explored near present day Fort Stockton.

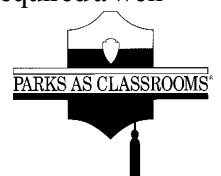
In 1682, a Frenchman named Robert Sieur de la Salle journeyed down the Mississippi River. His journey alerted Spain to the fact that it no longer had sole possession of Texas soil. The French forced a serious reexamination of Spanish attitudes towards Texas. Juan Dominguez de Mendoza explored the Pecos River, Alpine, and Fort Stockton in 1683 and 1684. The Mendoza Expedition was sent to protect christianized Indians in Texas from the Apaches and to determine if the French were established in Texas. Mendoza confirmed the French presence and the Spanish shifted their Texas objective from a missionary effort to a frontier defense.

In 1729, General Pedro de Rivera Villalon finished a three and half year inspection of the Spanish territory. He recommended placing a fort between La Junta and San Juan Bautista (near Eagle Pass, Texas). The plan was approved, but due to budget problems and the difficulty finding a site it was not implemented. In 1768, the Marques de Rubi proposed a new plan. He felt militarily it made more sense to have forts along the Rio Grande about 100 miles apart. Pedro de Rabago y Teran lead an expedition from Chihuahua to Ojinaga. He was to locate sites for the presidios. Rabago was probably the first to explore what is now Big Bend National Park. His report resulted in the establishment of presidios at San Carlos and San Vicente and a reoccupation at La Junta. The purpose of the presidio was to drive the Apaches north into Comanche territory and force them to fight the Comanches or succumb to Spanish rule. The presidio at San Vicente was built in 1774, close to a branch of the Comanche Trail and near tillable soil. The presidio closed in 1781 due to financial problems, poor supplies and poor pasture land for the horses.

In 1807, Lt. Zebulon Pike was captured by Spanish authorities while exploring northern Texas. He was taken under military escort to Chihuahua City and went through the western part of Big Bend. Between 1807 and 1830 Anglo-American trappers and traders began to enter the northern part of the Trans-Pecos.

SETTLEMENT

In February 1821, land belonging to the Spanish Empire became part of the Mexican Republic. The Mexican Republic decided to concentrate its troops closer to the centers of power. They ignored the frontier and explorations stopped. Anglo expansion into Texas in the 1820's increased. By 1836, the Anglo settlers in Texas rebelled against Mexican rule and won their independence from Mexico and President Santa Ana. The Republic of Texas was created. In December 1845, Texas became the 28th state in Union. The United States government began to police the border to prevent Indian raids. Between 1846-1848, the US/ Mexican War occurred. At the end of this war, the U.S. gained Mexican territory north of the Rio Grande including New Mexico, Arizona, and California. Terms of the Treaty of Guadalupe-Hidalgo required a well-defined international boundary. The Army Corps of Topographical Engineers were assigned the job.



Background Information

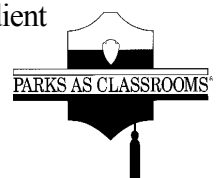
More European and Spanish settlers began to settle in the area. As the number of settlers increased so did the need for protection from the Indians. Forts were established at Fort Davis in 1854 and at Fort Stockton in 1859. As settlers moved in, explorations along the boundary and into the Big Bend occurred. In 1856-1857, Major W.H. Emory surveyed the Big Bend area. He gave details of its beauty, describing the Chisos and Santa Elena Canyon. In 1858 and 1859, Lt. William H. Echols left Camp Verde near Kerrville with camels. He tested their ability as beasts of burden and their effectiveness in the pursuit of hostile Indians. He explored Big Bend with the camels, visiting the Persimmon Gap area, Glen Springs, Tornillo Creek and Santa Elena Canyon. The experiment was not considered successful. Camels could go longer without food and water and they foraged on a wider variety of plants than mules. They could also pack heavier loads than mules. Male camels, however, fought with each other and the mules. The soft pads on the camels feet were easily cut by the terrain and rocks. The Civil War ended all camel experiments and topographical mapping.

After the Civil War people east of the Mississippi looked to the west as a place to make a fresh start. Settlers poured into Texas. They began to demand better protection from the natives so more forts were established. The topographical surveys were once again initiated. The harsh climate of the Trans-Pecos held little appeal to most settlers. Before 1880 the cattle industry was slow to develop due to environmental problems and Indians. West Texas was largely undeveloped. With the increase in forts in the area more cattle were needed to feed the soldiers. The arrival of the railroad in 1882 and the effective eviction of the Indians through efforts of the Texas Rangers and the Army encouraged settlement in the region.

In 1899, Robert Hill explored and mapped the region. He wrote glowing descriptions about the area. In 1902 Arthur Stiles and Stuart Penick mapped Big Bend. In 1909 J.O. Langford moved to the Hot Springs area to open a health spa. The area was becoming better known and the idea of a Park was growing.

In 1910 a civil war broke out in Mexico. For the next twenty years, the Mexican Revolution greatly affected the Big Bend. Ten percent of all the Mexican population emigrated to the American Southwest. Many settled along the Rio Grande to raise goats and practice subsistence farming or to serve as labor for the anglo ranchers. Some of the Mexicans became bandits, robbing and killing in the U.S. border areas. The U.S.A. responded by stationing troops at La Noria, with a handful of soldiers at Boquillas, Texas and Glenn Springs. On May 5, 1916, bandits raided Glenn Springs. At the time, Glenn Springs was the site of a candelilla wax factory, store and ranch. The bandits killed three soldiers and a boy. After raiding Glenn Springs, they robbed the Boquillas, Texas store, kidnapping two men. Then the group stole the payroll from the Boquillas, Mexico Puerto Rico Silver Mine. Soldiers pursued the bandits and recovered some of the stolen goods and rescued the men who had been kidnapped. In 1917, many of the troops near the border were withdrawn and sent to France to fight in World War I (WWI). In 1919 the Army established an aerial border patrol to aid in the struggle against bandits. Airmen landed at Johnson Ranch. In 1921, the airmen left until 1929 when the airstrip was once again used for army cross-country training flights. By 1930 most of the troops were pulled out of the Big Bend. Mexico had settled its civil war and agreed to control the bandits.

During the early 1900's mining activity boosted the area's economy. The mines brought in more settlers. Silver was mined in Boquillas, Mexico (and later fluorspar). The ore was brought over to Texas for smelting and processing in Marathon. The Old Ore Road was developed to help in its transportation. The road from Persimmon Gap to Marathon was improved. Cinnabar was also being mined at Terlingua and Mariscal to obtain Mercury. The rare element, mercury is used to separate silver from its natural quartz state. Mercury is also used as a conductor of electricity, as an ingredient



Background Information

in medical and dental preparations, an additive to pesticides and in triggers for bombs. The mercury mines were most active during WWI and WWII, when it was needed to detonate gunpowder. After the wars, the price of mercury dropped and many mines, including Mariscal closed. Mariscal mine owners actually went bankrupt in the 1940's so the mineral right reverted to the state who gave them to the National Park Service.

Ranching and subsistence farming were also important in the area. Sheep, goats, and cattle grazed in the Big Bend from 1880 to 1944. Subsistence farms, owned mostly by Mexican settlers, grew corn, beans, wheat, squash, tomatoes and melons. The communities of Castolon, El Ojito and La Coyote grew. H.E. Perry and W.P. Cartledge established La Harmonia Co., a store, post office and ranch in 1911. The US Army had a post here from 1916-1921. La Harmonia took over the buildings the army had built and expanded. In 1923, La Harmonia switched from growing wheat to cotton. A cotton gin was brought in. The cotton industry kept 20-30 people employed until 1927 when prices dropped. The Hot Springs area also flourished. Langford set up a store, cabins and bathhouse. The post office and store operated until 1952. Many other small communities and individual ranches sprang up in the Big Bend.

When the depression hit in the 1930's, it coincided with a drought in the area. Many ranchers gave up and moved on. Also at this time, R.M. Wagstaff of Abilene and E.E. Townsend of Alpine were trying to get a state park established

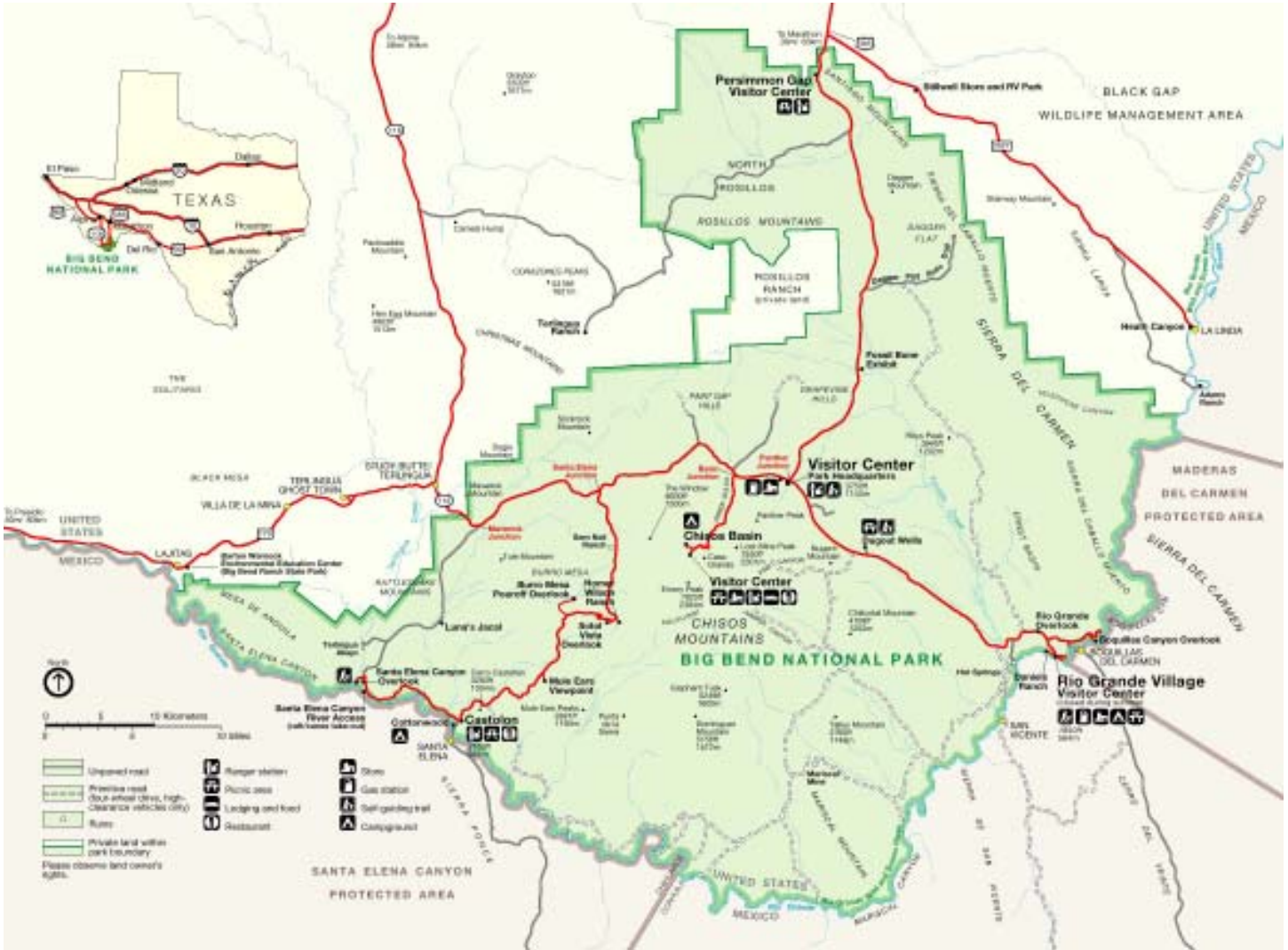
to protect the canyons along the Rio Grande. In 1933, Texas established Texas Canyons State Park which preserved fifteen sections at and near Santa Elena, Mariscal and Boquillas Canyons. Later 150,000 acres of unsold public land and delinquent tax lands in Brewster county were added to the park. The name was changed to Big Bend State Park. The Civilian Conservation Corps (CCC) was established by President F. D. Roosevelt to link work relief to conservation of natural resources. Big Bend State Park took advantage of the program, using the CCC from 1934 - 1937 to build roads and trails.

In 1935, Big Bend was authorized as a national park, provided that more land would be added. Texans raised money for land purchases and Congress appropriated \$1.5 million for land purchase in 1941. 700,000 acres was purchased in 1941 and 1942. Then on June 12, 1944 the deed to Big Bend State Park was transferred from Texas to the United States of America. Big Bend National Park was a reality.

Many changes have occurred to Big Bend National Park in the last half century. Today there is a well developed road and trail system and several campgrounds, a lodge, stores and a post office. It is no longer the isolated, inaccessible region it used to be. Today, the park covers 801,00 acres and is visited by 300,000 visitors each year.



Background Information





Visiting Your Classroom

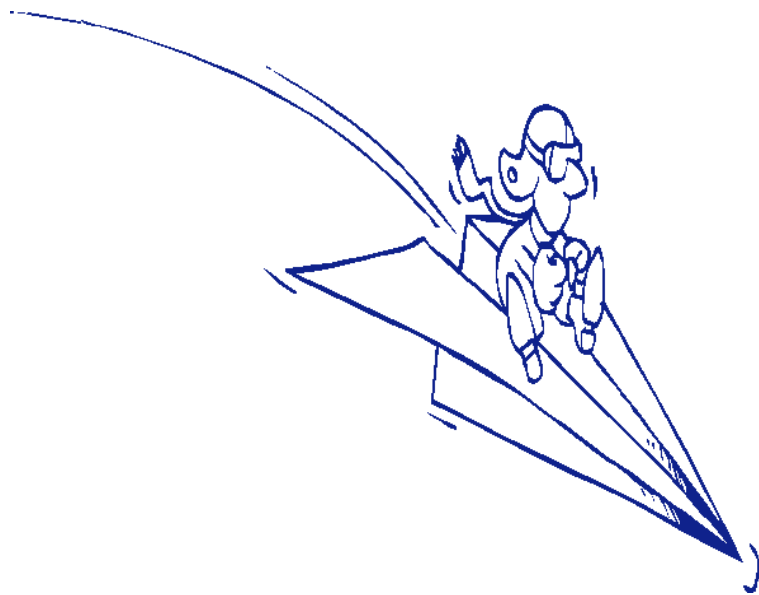
The pre- and post-visit activities are an important component of the Educator's Guide. Students will retain more information during the in-class program if they have completed the pre-visit activity. After the program, the post-visit activity will reinforce concepts and ideas presented by the Ranger. Please insure your students have completed the pre-visit activities **before** the inclass visit.

Pre-Activity 1: Vocabulary Match

Post-Activity 1: Word Search

Pre-Activity 2: Signs and Symbols

Post-Activity 2: My Family Tree





Vocabulary Match



A. Anything that nourishes the body.

B. Something that belongs to the past.

C. Any rhythmic sequence of pleasing sounds.

D. A style of construction of a building or buildings.

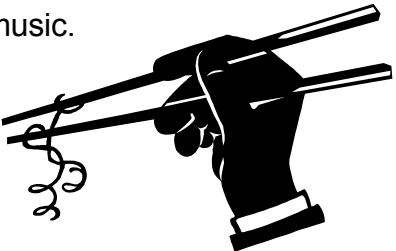
E. A stone surface used to grind corn, beans, or seeds.

F. To move the body, especially the feet, in rhythm to music.

G. The common way a group of people do things. For example: similar music, language, food, dance, and celebrations.

H. A form of communication. All the vocal sounds, words, gestures, and signs common to a particular nation, group, or tribe.

I. Any implement, instrument, or utensil held in the hand and used for cutting, hitting, digging, etc. For example: knives, saws, hammers, shovels, and rakes.



_____ Music	_____ Metate	_____ Food
_____ Architecture	_____ Language	_____ History
_____ Culture	_____ Tool	_____ Dance



Take a closer

LOOK

WORD SEARCH

Cultural Diversity

T	R	A	K	Y	N	V	K	L	F	J	T	S	A	P
C	O	M	M	U	N	I	C	A	T	I	O	N	N	Q
Y	C	U	S	H	P	Y	L	G	O	R	T	E	P	L
N	K	S	C	K	Z	C	D	Y	B	H	O	R	I	H
Y	S	I	B	S	M	P	R	F	R	T	P	U	C	O
A	R	C	H	A	E	O	L	O	G	I	S	T	T	S
B	S	O	B	B	T	U	P	A	C	A	R	L	U	G
R	L	S	T	S	N	O	L	T	N	J	D	U	R	O
Z	O	A	C	S	L	E	O	C	I	G	N	C	E	P
E	B	E	R	O	I	G	Q	Q	J	C	U	C	W	H
V	M	D	G	M	R	H	B	R	C	A	N	A	X	L
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N	S	S	P	U	J	K	F	A	D	O	O	F	F	E
T	Z	H	W	Q	T	Y	A	O	M	F	A	K	B	I
S	Y	G	O	F	E	O	E	C	I	H	B	J	K	V

ANTHROPOLOGIST
 ARCHEOLOGIST
 ART
 CLUES
 COMMUNICATION
 CULTURE
 DANCE

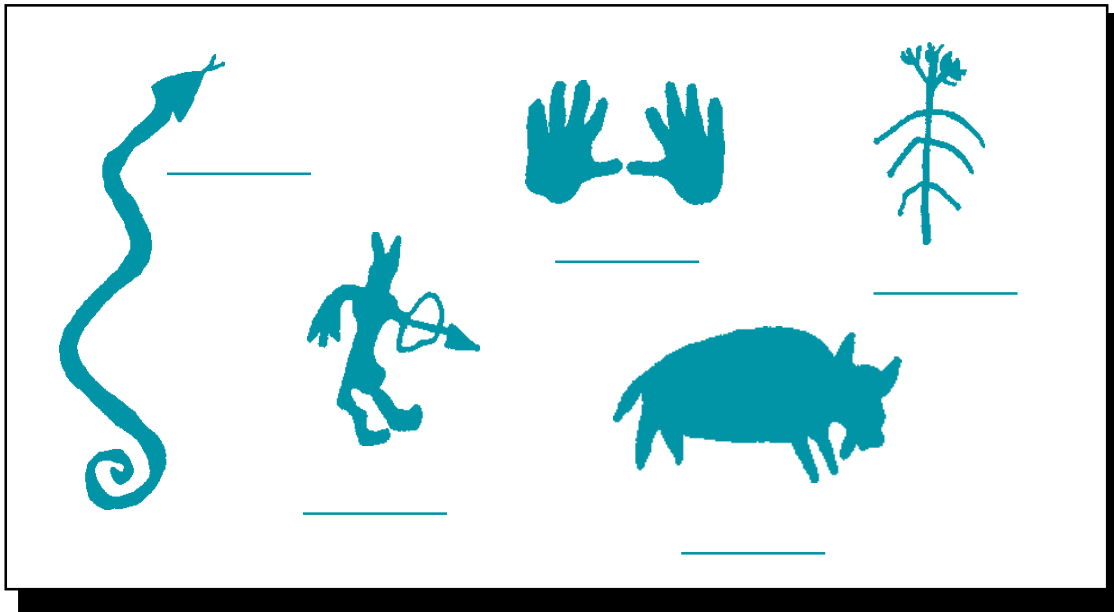
EVENTS
 FOOD
 HISTORY
 IDEAS
 LANGUAGE
 MUSIC
 PAST

PETROGLYPH
 PICTOGRAPH
 PICTURE
 ROCKS
 STORY
 SYMBOLS



SIGNS & SYMBOLS

American Indians of the southwest did not have a written language like we do today. Instead, their history was passed on through stories and petroglyphs and pictographs. Petroglyphs are made by scratching or pecking a rock surface, and pictographs are made by painting the surface. Here are some symbols used in petroglyphs and pictographs of the American southwest. What do you think they might represent?



Today we also use symbols in our written language. A thousand years from now scientists may have to guess what our symbols meant. Can you draw the correct symbol for each of the words below?

- 1. ___question 2. ___dollars 3. ___at 4. ___percent 5. ___number
- 6. ___asterisk 7. ___exclamation 8. ___and 9. ___multiply 10. ___equals





My Family Tree

My name is _____.

I am _____ years old.

I was born in _____.

My Mother was born in _____.

My Father was born in _____.

My Grandmothers were born in _____ and _____.

My Grandfathers were born in _____ and _____.

My family has lived in _____ for _____ years.

I like living in _____ because

_____.

When the history of your hometown is recorded, what would you like to say? _____

_____.



Suggested Reading

Fourth Grade



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Antheneum; ISBN: 06898112717. Published 1998.

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ISBN 1856975614. Published 1995.

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New Press; ISBN: 156584064X. Published 1993.

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Sierra Club Books; ISBN: 0316856398. Published 1996.

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Macmillan General Reference; ISBN: 0671889923. Published 1994.

Weitzman, David. Great Lives: Human Culture.
Atheneum Publications; ISBN: 0684194384. Published 1995.

