

Detectives of the Past

Chaco Culture National Historical Park Quarter

Grades Nine through Twelve



OBJECTIVES

Students will demonstrate basic skills in analyzing artifacts. Students will demonstrate deductive skills by drawing conclusions about a culture based on its artifacts.



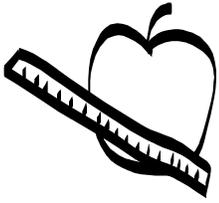
MATERIALS

- 1 overhead projector or other classroom technology
- 1 overhead transparency (or equivalent) of each of the following:
 - “Chaco Culture National Historical Park Quarter” page
 - “Did You Know...” page
- Copies of the following:
 - “Detectives of the Past” worksheet
 - “Detectives of the Past” answer sheet
 - “Detectives of the Past Rubric”
- 1 class map of the United States of America
- Access to video clips of Chaco Canyon
- Age-appropriate materials for student research on the Chaco culture, such as Internet sites, videos, textbooks, reference materials, and other texts
- 1 computer with Internet access
- Chart paper
- Markers
- Access to a computer lab
- Highlighters
- A box of transparencies or multimedia tools



PREPARATIONS

- Make copies of the following:
 - “Detectives of the Past” worksheet (1 per student)
 - “Detectives of the Past Rubric” (1 per student)
- Make overhead transparencies (or equivalent) of the following:
 - “Chaco Culture National Historical Park Quarter” page
 - “Did You Know...” worksheet
- Bookmark a video of Chaco Canyon.



Detectives of the Past

- Have paper, markers, highlighters, and transparencies ready for class use.
- Reserve computer lab for session 3.
- Bookmark Internet sites that focus on Chaco Canyon culture.
- Prepare chart paper for the beginning of session 2.



GROUPINGS

- Whole group
- Small groups
- Individual work



CLASS TIME

Four 45- to 60-minute sessions



SUBJECT AREA CONNECTIONS

- Social Studies (Archaeology)
- Language Arts



TERMS AND CONCEPTS

- Obverse
- Reverse
- Prehistory
- History



BACKGROUND KNOWLEDGE

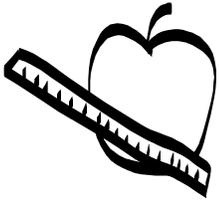
- Archaeology
- Artifacts
- Archaeological sites



STEPS

Session 1

1. Discuss with the class what they know about archaeology and what an artifact is. Include questions about the responsibilities of an archaeologist, what constitutes a dig, how a site's grid is established, and the ways artifacts are dated. Record responses on chart paper.



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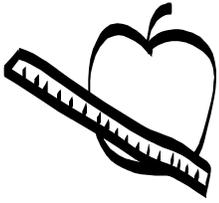
2. Review any famous archeological sites that were discussed in previous lessons. Note any similarities and differences that exist among the sites of Egypt, India, and China. Display the “Chaco Culture National Historical Park Quarter” overhead transparency. Describe the America the Beautiful Quarters® program for background information. (The program is described at www.usmint.gov/mint_programs/atb/). Explain that the back of a coin is called the reverse, and “obverse” is another name for the front. With the students, examine the quarter’s design.
3. Display the top part of the “Did You Know...” page, which features: “Prehistory and History.” Discuss the key points.
4. Display the rest of the “Did You Know...” page on “Chaco Culture Excavation.” Lead the class to state the importance of this archaeological dig. Emphasize the fact that this excavation, in its early stages, yielded thousands of artifacts for archaeologists to examine. All artifacts were prehistoric and therefore required extensive study.
5. Show the class the bookmarked video of Chaco Canyon. While the video is playing, have students record five main ideas. Have students present these main ideas in a class discussion following the video.

Session 2

1. Review the previous class session, focusing on the main ideas that students gathered from the video. Place the class into groups. Have each group determine who its presenter, encourager, and director will be. (The director will keep the group focused and moving in a timely manner. The encourager will reassure the group of their efforts. The presenter will summarize the group’s findings in the class discussion following the completion of the assignment.) Each person in the group will be their own recorder. Students have the benefit of the group’s analysis but are challenged to stay on task.
2. Each group is to act as archaeologists who were part of the excavation team that initially uncovered the Chaco Canyon. Present each student with the worksheet “Detectives of the Past” and “Detectives of the Past Rubric.” Students are to analyze the artifacts in column 1 and then complete the second column without doing any research. They are to draw their own conclusions about the Chaco culture.
3. After the groups have completed their assignment, have the presenter from each group summarize their findings and then present them the class. Record the groups’ findings on chart paper in a 3-column format like the worksheets.

Session 3

1. Display the charts from the previous session and review the information. Have the students pay attention to not only the scientists’ findings but also their methods and accuracy.

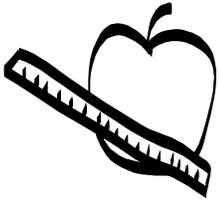


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2. Take the students to the computer lab to research the accuracy of their predictions.
3. Students may work individually or in pairs depending upon the number of computers or resources available.
4. Students will continue to use their worksheet “Detectives of the Past” to complete the third column of the sheet. Have the students research the same questions they answered in column 2. These answers will be based on the findings of archaeologists who have studied the Chaco people for decades.
5. When the students have completed the third column, have them individually or in pairs analyze the differences between the two columns. Have them mark with a highlighter the conclusions in column 2 that were accurate based on their research.
6. Focus on the class chart from the previous session. Discuss the findings that were accurate and those that were erroneous. Mark with a highlighter those conclusions that were accurate from the research of this day’s session. The final discussion should center upon the methods and accuracy of archaeologists.

Session 4

1. Review the information from the previous session.
2. Explain to the class that around the year 1140, this complex social system unraveled and collapsed. Some of the population moved to new areas while others didn’t survive. Ask students what may have caused this decline. Write the information and question on chart paper.
3. Divide the class into four groups. Each group is to research the assigned areas of investigation: geography/climate/geology, daily life/subsistence, technology, and trade.
4. Each group is to prepare a written report on the topic assigned, summarizing its investigation, and providing illustrations. Pictures are to be printed and shared with the entire class. As an option, students may create multimedia presentations to present their information. Included in the summary must be the answer to the question “In the area the group researched, what would explain the decline of this complex society?”
5. Upon completion of the research, the class will come together in a large group session. The presenter from each group will summarize the findings, show the pictures through transparencies or multimedia, and then answer the question of what caused the decline of the Chaco culture.
6. After the presentations, collect the printed pictures and summaries. Collate them into a scrap book and make individual copies for the students.



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ASSESSMENT

- Take anecdotal notes about the students' participation in class.
- Evaluate the students' worksheets and projects for understanding of the lesson objectives.



ENRICHMENT/EXTENSIONS

- Have students create cave paintings to explain the exodus of the Chaco people from their settlements in Chaco Canyon. Students may then exchange these cave paintings and write explanations, as archaeologists, about their interpretation of these drawings.
- Have students create picture books and summaries of the Chaco culture to read to lower grade level students.
- Have students create a video commercial attracting tourists to Chaco Canyon.



DIFFERENTIATED LEARNING OPTIONS

- Allow students to have extended time if needed.
- Allow students to use a scribe to complete their worksheets.



CONNECTIONS TO WWW.USMINT.GOV/KIDS

- Have students learn more about exploring ancient times and to relate their research to their own lives through the unit on ancient and modern coins at www.usmint.gov/kids/teachers/lessonPlans/viewUP.cfm?unitId=44.
- Have students learn more about conducting independent research about some of the scientific artifacts Lewis and Clark examined on their Expedition through the Coining Scientific Discoveries lesson plan at www.usmint.gov/kids/teachers/lessonPlans/wjns/download.cfm?grade=7.



Did You Know...

PREHISTORY AND HISTORY

- Prehistory: the period before recorded history, relying entirely on archaeological evidence.
- History: the period during which history is recorded in writing.

CHACO CULTURE EXCAVATION

- Although Chaco Canyon was first sited for excavation in 1832, formal work began in 1896 when the Hyde Exploring Expedition began excavating.
- Throughout the next hundred years, about 1 million artifacts were uncovered from 120 excavation sites.
- Each archaeologist that worked in Chaco Canyon contributed insights into the culture and history of the Chaco people.



Name _____

Date _____ Class Period _____

Detectives of the Past

Group Members _____

1. What skills would the people who created these items have used to make these objects? Explain your answers.

OBJECT	SKILLS
Buildings 	
Kivas 	
Jewelry 	
Pottery 	
Weapons 	
Petroglyphs 	

2. What do these pictures tell you about these people and their culture?

3. What was important to the people who used these objects? Explain your observations.

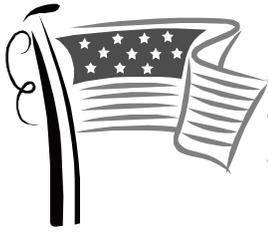
4. In a thousand years, when archaeologists uncover our civilization, what items might indicate our values and culture? (List at least eight and why they're good examples.)



Detectives of the Past

Answer Sheet

1. What skills would the people who created these items have had in order to make the objects? Explain your answers.
 - Kivas and community structures: masonry techniques to construct stone buildings of multiple stories and hundreds of rooms; architectural skills since these buildings were planned in advance; engineering skills; knowledge of geometry.
 - Ceramics: use of fire to create the bowls and move from basket making to a higher level of cooking; trading and communication skills for obtaining these ceramics from outlying regions; ability to use minerals to decorate these bowls.
 - Weapons: ability to use stones (obsidian) to sharpen the weapons; ability to hunt and use these weapons rather than simply relying on gathering food.
 - Jewelry: ability to grind, drill, and polish decorative stones, especially turquoise.
 - Petroglyphs: ability to carve into stones; geometry; mental awareness and time to keep record and preserve stories of their culture.
2. What do these pictures tell you about these people and their culture?
 - Community organization was crucial, with vast numbers of people in clans.
 - Division of labor would have been required in order to have the necessary skills within the population.
 - Government would have been necessary in order for them to be unified and orderly.
 - A religious belief system was in evidence.
 - They were astronomically aware since the buildings are aligned to solar, lunar, and cardinal directions.
 - Trade was necessary for procuring trees, not found in Chaco Canyon.
 - In construction, some level of communication was needed in order to trade and achieve their level of complexity.
 - Hunting had to be efficient so they had more time to develop other skills. Also, the types of hunting gear changed over time as conditions changed.
3. What was important to the people who used and created these artifacts? Explain your observations.
 - The Chaco people probably valued artistry and fashion as noted in their decorative ceramics and jewelry. Color was important since many minerals were ground and used in decoration of ceramics.
 - Small ceramics with which children could play show that this culture would have seen worth in children and their position in the society.
 - The kivas and large community structures indicate that they placed importance on socialization, ceremonial activities, and administrative, religious, and social events.
 - There had to be a value attached to simply recording events for posterity.
 - Geometry (order) was obviously important because it was used in the building structures, ceramic designs, and petroglyphs.



Detectives of the Past

Rubric

Predictions

CATEGORY	4	3	2	1	GRADE
Completeness	All questions answered as specified in directions.	Only 3 questions are answered or attempted.	Only 2 questions are answered or attempted.	Less than 2 questions are answered or attempted.	
Requirements	Goes beyond the requirements of the assignment.	Meets the requirements of the assignment.	Does not meet the requirements of the assignment.	Has not done the assignment.	
Artifact Analysis	Observations concluded are accurate.	3 out of 4 observations are accurate.	At least half of the observations are accurate.	Less than half of all observations are accurate.	
TOTAL					

Actual

CATEGORY	4	3	2	1	GRADE
Completeness	All questions answered as specified in directions.	Only 3 questions are answered or attempted.	Only 2 questions are answered or attempted.	Less than 2 questions are answered or attempted.	
Requirements	Goes beyond the requirements of the assignment.	Meets the requirements of the assignment.	Does not meet the requirements of the assignment.	Has not done the assignment.	
Artifact Analysis	Observations concluded are accurate.	3 out of 4 observations are accurate.	At least half of the observations are accurate.	Less than half of all observations are accurate.	
TOTAL					

Comments



Chaco Culture National Historical Park Quarter



The United States of America

