Teacher Packet

School Field Trip Information

What Can You Expect on a Field Trip? .......... page 1
Scheduling Information ................................ page 1
School Field Trip Activities ....................... page 2
Standards for Crafts ................................ page 2-3
Frequently Asked Questions ...................... page 4
Bus Parking Information (Map) .................. page 5
Light Rail Map/Directions ....................... page 6
Resources............................................
Post-Visit Activities for the Classroom.........

Pueblo Grande Museum and Archaeological Park • 4619 E Washington St • Phoenix AZ 85304 • 602-495-0901 • www.pueblogrande.com
What Can You Expect on a Field Trip?

Get hands-on with prehistory! Students learn about the unique cultural landscape of the Hohokam by visiting a 1,500-year-old archaeological village site known as Pueblo Grande. On the field trip, students explore reconstructed Hohokam houses, discover the wonders of a prehistoric irrigation system, learn about the science of archaeology, and gain a greater appreciation for the ingenuity and skill of the first peoples.

1. We strongly suggest that teachers make a pre-field trip visit to the Museum free of charge to prepare for the field trip. This will also help you become familiar with the facility. Download an Educator Invitation Letter at pueblo grande.com for free entrance.

Scheduling Information

- No matter the size of your group, please check in with the front desk staff upon arrival. At check-in please have the total number of students as well as the number of chaperones / teachers in your group ready to report.

- There must be at least one chaperone for every seven (7) students. Chaperones are asked to remain with the group at all times. It is the responsibility of chaperones (and teachers) to maintain orderly student conduct and assist with the activities.

- If you plan to eat lunch at the Museum, we do not provide any food vending options. Upon arrival we can direct you where to store your sack lunches during your visit. Picnic tables are available on site for use at no charge; however, the tables are on a first come first serve basis. The tables are in an uncovered area next to the Museum.

- Please identify any special needs that your students or group may have when scheduling your visit. The Museum and outdoor Interpretive Trail are wheelchair accessible.

- Notice to teachers with Native American Students: Please inform the students’ parents/guardians in advance that their child will be visiting an archaeological site which contains a prehistoric ruin.

- Groups are welcome to visit the Museum Store. Children must be accompanied by an adult; only seven (7) children are allowed in the store at a time.
School Field Trip Activities

In addition to field trips, the Museum also offers a wide range of Native American craft and archaeology related activities that your students can enjoy during their visit.

Craft Activities for Act One School Visits:

- **Sand Paper Pictographs (for k – 1st grade)**
  Did you know the Hohokam made special rock art called pictographs? Learn about these rare works of art as you create your very own in our brand-new sand paper craft. **Time: 30 minutes (including instruction/ demonstration)**
- **Plaster Petroglyphs (for 3rd – 6th grade)**
  Students will create their own petroglyphs with prehistoric Hohokam designs. **Time: 30-40 minutes (including discussion and design time)**

Standards for Crafts

Here at Pueblo Grande Museum we offer an assortment of STEAM based crafts that complement our exhibits and current research in accordance with K-12 Arizona Academic Standards. You can find our standards below:

**Sandpaper Pictographs (K-1st Grade)**

<table>
<thead>
<tr>
<th>Arizona Academic Standards in the Arts (Visual Arts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
</tr>
<tr>
<td>VA.CR.1.Ka</td>
</tr>
<tr>
<td>VA.CR.2.Ka</td>
</tr>
<tr>
<td>VA.CR.2.Kc</td>
</tr>
<tr>
<td>VA.CR.3.k</td>
</tr>
<tr>
<td>VA.RE.7.Kb</td>
</tr>
<tr>
<td>VA.CN.11.K</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
</tbody>
</table>

**Arizona Academic Standards in Social Studies**

<table>
<thead>
<tr>
<th>Kindergarten</th>
<th>Grade 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1-C1-PO4</td>
<td>S1-C1-PO3</td>
</tr>
<tr>
<td>S1-C2-PO1</td>
<td>S1-C2-PO1</td>
</tr>
<tr>
<td>S4-C5-PO1</td>
<td>S1-C2-PO2</td>
</tr>
<tr>
<td>-</td>
<td>S2-C1-PO3</td>
</tr>
<tr>
<td>Arizona Academic Standards in Social Studies</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Kindergarten</td>
<td>Grade 1</td>
</tr>
<tr>
<td>S1-C1-PO4</td>
<td>S1-C2-PO1</td>
</tr>
<tr>
<td>S1-C2-PO1</td>
<td>S4-C4-PO1</td>
</tr>
<tr>
<td>S1-C3-PO2</td>
<td>S1-C1-PO2</td>
</tr>
<tr>
<td>S2-C1-PO4</td>
<td>-</td>
</tr>
<tr>
<td>S2-C2-PO1</td>
<td>-</td>
</tr>
<tr>
<td>S2-C5-PO2</td>
<td>-</td>
</tr>
<tr>
<td>S4-C5-PO1</td>
<td>-</td>
</tr>
</tbody>
</table>

**Plaster Petroglyphs (3rd-6th Grade)**

<table>
<thead>
<tr>
<th>Arizona Academic Standards for the Arts (Visual Arts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
</tr>
<tr>
<td>VA.CR.1.3a</td>
</tr>
<tr>
<td>VA.CR.2.3a</td>
</tr>
<tr>
<td>VA.PR.6.3</td>
</tr>
<tr>
<td>VA.RE.7.3b</td>
</tr>
<tr>
<td>VA.CN.10.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arizona Academic Standards in Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
</tr>
<tr>
<td>S6-C1-PO3</td>
</tr>
<tr>
<td>S6-C1-PO6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arizona Academic Standards in Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
</tr>
<tr>
<td>S1-C1-PO2</td>
</tr>
<tr>
<td>S1-C1-PO3</td>
</tr>
<tr>
<td>S2-C1-PO2</td>
</tr>
<tr>
<td>S2-C1-PO3</td>
</tr>
<tr>
<td>S4-C4-PO4</td>
</tr>
<tr>
<td>S4-C5-PO3</td>
</tr>
</tbody>
</table>
Frequently Asked Questions

How long do field trips last?
Approximately 1 to 1-1/2 hours. If you have scheduled a craft activity please allow an additional 30 minutes.

How long is the ruin trail?
2/3 of a mile loop, 1/2 mile with short cut.

How many people can the picnic tables accommodate?
75 people.

Where do the buses go when we arrive?
See bus parking map on page 11.

Once we get off the bus, where do we go?
Please have the group form a single-file line on the walkway in front of the Museum to allow room for other guests to walk by. Have a teacher check in at the front desk to pay and receive additional instructions.

Where can we place items (backpacks, umbrellas, bags, lunches) we brought on the trip? All items will remain in a designated area next to the classroom. Please be aware that this is an unsecured location, so no personal items should be left unattended.

Where are the restrooms located?
They are on the north-side of the lobby, across from the admissions desk.

What if our group is delayed and we miss our field trip time?
If you are going to be late please call in advance. Welcome and introduction begins promptly at 10:00 a.m. If you miss this time, you can still do your self-guided visit. If you are late, all crafts will be provided as a take-home activity. If you miss your time completely, you can call to reschedule.

Do the field trips and activities meet Arizona Academic Standards?
Yes, you can find them on pages 5 through 9 of this packet.
Bus Parking Information

Pueblo Grande Museum
4619 East Washington Street
Phoenix, Arizona 85034
Located on the southeast corner of 44th Street and Washington Street

1. **Bus drop-off and pick-up area only**
   Please do not block pedestrian walkway. **Buses cannot be parked here.**

2. **Bus parking – North end of parking lot.** Do not block the dumpsters.

3. After students get off the bus, wait here to meet your guide.
How to get to Pueblo Grande Museum

Due to the Light Rail, there is no left turn in, or out, of the Museum. We have included a map showing several routes on how to get to Pueblo Grande Museum.

Route 1. Loop 202, coming from the West Valley. Exit at 44th Street and make a right (go south) to Washington Street. Take a left at Washington Street (go east) to Pueblo Grande Museum. We are the first right hand turn on Washington Street.

Route 2. Loop 202, coming from the East Valley. Exit at 44th Street, and make a left (go south) to Washington Street. Take a left at Washington Street and go east to Pueblo Grande Museum. We are the first right hand turn on Washington Street.

Route 3. 143 Expressway, once you exit at Washington Street go left to 44th Street. Make a U-turn at 44th Street and head east. We are the first right hand turn on Washington Street.

Route 4. Take the light rail system. Get off at the Washington Street and 44th Street exit, and walk across the street.
Resources

Interpretive Station Talking Points

Along our outdoor trail there are several stations that provide excellent interpretive opportunities! Below you will find some talking points to help guide your adventure. Who knows, you might even encounter one of our wonderful volunteers to engage with you and your students! For more information, please check out our Pueblo Grande Museum Historical Information packet on our website.

**Hohokam Garden and Desert Oasis**

- The Hohokam people were the first farmers of the desert! They grew more species of crop than any other prehistoric groups in the Americas!
- They primary crops they grew for food included corn, beans, squash (the three sisters) and they also grew cotton for trading and creating textiles.
- They also harvested plants from the desert! This included agave which were roasted in specialized ovens called hornos, saguaros that yielded both edible fruit and building material and yucca to provide fiber.

**Ballcourt**

- Ballcourts are oval, bowl-shaped depressions in the ground which are found at most Hohokam settlements. They typically are around 80 to 100 feet in length and 50 feet wide.
- More than 200 have been found in Arizona, including three (3) at Pueblo Grande!
- Ball courts may have been the product of cultural exchange with Mesoamerica. They have what appear to be goal posts at each end, so it is suggested that stone and rubber balls may have been used in some sort of game.

**Pit House**

- Pit houses were created by digging a foundation (often circular) into the ground before erecting a wooden framework and covering it with adobe. This would have provided insulation from the elements.
- They occur in clusters and the doorways open into a central courtyard. This implies a shared community space and most daily activities like grinding and cooking probably took place out here.
- In the center of the floor you will notice a hearth. This was not likely used for cooking (nowhere for the smoke to go) so perhaps it was used to hold embers for light and warmth at night.
**Compound House**

- Adobe compound architecture became common among the Hohokam during the Classic period (A.D. 1150-1450).
- They differ from the earlier pit houses in that they are built above ground, square instead of round/oval and built using coursed adobe (mud stacked in layers with stone) instead of mud and wood.
- Compound houses had tall adobe walls that defined an outdoor space more precisely than did the courtyards of the pit house clusters.

**Canals**

- The Hohokam constructed canals to irrigate large agricultural fields using wooden and stone tools. They created the largest prehistoric irrigation system in North America.
- The topography of Pueblo Grande made it a very prominent village site. It is located on bedrock which played an important role in establishing the head gates for the largest canals.
- The largest Canal extended for 20 miles from Pueblo Grande to modern day Glendale!
- Many of the canal systems used in modern day Phoenix follow the same course as the prehistoric Hohokam canals!

**Platform Mound**

- The mound was tied to organization and operation of the canal system. Mounds are located at heads of major canal systems.

- Some archaeologists believe that the elites of Hohokam society may have lived on top of platform mounds.

- The mound that stands before you today, at its peak was the size of a football field and about three stories tall.
Books available in the Pueblo Grande Museum Store:

**Desert Farmers at the River’s Edge: The Hohokam and Pueblo Grande**  
By John P. Andrews and Todd W. Bostwick, Pueblo Grande Museum  
This publication is a comprehensive overview of the Hohokam people and in particular the prehistoric village we know today as Pueblo Grande. This book is written for a general audience. Topics discussed include Hohokam cultural origins, environment, subsistence, domestic architecture, monumental and public architecture, material culture, trade networks, ideology, and cultural collapse.

**Hohokam Arts and Crafts**  
By Barbara Groneman, Southwest Learning Sources  
Hohokam Arts and Crafts is an excellent book for teachers who wish to bring Native American craft activities into the classroom. This book cover crafts related to Hohokam ceramics, shell jewelry, cotton spinning, cloth weaving, basket weaving, gourds, and rock art. Each section presents a Hohokam craft, beginning with archaeological and ethnohistorical background information. All craft activities are presented with clear step-by-step instructions and illustrations.

**Hohokam: Prehistoric Inhabitants of Pueblo Grande**  
By John P. Andrews and Todd W. Bostwick, City of Phoenix  
This publication is a great introduction for anyone who wants a clear, concise overview of the Pueblo Grande archaeological site and its prehistoric residents the Hohokam. The book provides information on Hohokam agriculture, architecture, crafts, trade and ideology.

**Tracks Through Time: The Archaeology of the METRO Light Rail Corridor**  
By Glenn. S.L Stuart, Archaeological Consulting Services  
This book presents the results of the archaeological investigations that were conducted along the Light Rail corridor. Interesting examples of the prehistoric and historic features and artifacts that were encountered are provided throughout along with abundant illustrations.

**Beneath the Runways: Archaeology of Sky Harbor International Airport**  
By Todd W. Bostwick, Pueblo Grande Museum  
*Beneath the Runways* discusses the two main archaeological sites associated with Sky Harbor International Airport, Dutch Canal Ruin and Pueblo Salado. Prehistoric and historic canals identified within Sky Harbor are also described. In addition, a brief overview of the Hohokam is provided along with an examination of the nature of Dutch Canal Ruin and Pueblo Salado.
Free handouts at Pueblo Grande Museum:
Hohokam Canal Maps
Museum Profiles
Museum Brochures

Available on our website:
Teacher Resources
Lesson Plans
Discovery Guides (K - 2nd; 3rd - 6th grade)
Outreach packet

Post-Visit Activities for the Classroom

Test your memory of your visit to Pueblo Grande by circling the correct answer.

1. What type of houses did the Hohokam people build first at Pueblo Grande?
   A. Mounds
   B. “Big” houses
   C. Pithouses
   D. Adobe compounds

2. Who lived in these groups of houses?
   A. People from different tribes
   B. People who got to know each other when they moved in
   C. People who came from far away to help the Hohokam with their farms
   D. People who were family members and related to one another

3. What do we call the shade structure that Hohokam people used to make a comfortable workplace in their courtyard or compound?
   A. Shadow house
   B. Ramada
   C. Shack
   D. Palapa

4. The village of Pueblo Grande became an important Hohokam village because…
   A. It controlled the flow of water in the irrigation canals.
   B. It was located in Phoenix, Arizona.
   C. The Hohokam liked living along the Salt River.
   D. Lots of people gathered there to play ball.

5. When archaeologists excavate ancient Hohokam houses, they usually find…
   A. Whole buildings like those along the Pueblo Grande outdoor trail
   B. Just the wooden frameworks.
   C. The outlines of rooms, postholes and hard-packed floors.
   D. Architecture plans that were drawn on the walls.
Canal Maze (for Educators Use)

1. Remind students that the Hohokam dug out thousands of miles of canal systems using stone tools, digging sticks and their hands. That’s a lot of work! Why did they do this?

2. Ask students what crops they think the Hohokam grew. Many people know the Hohokam grew corn, squash, beans (the three sisters) and cotton. Did you know that they cultivated 12 different plant species, that is more than any other prehistoric culture in America! Encourage students to research and find pictures of some of these other crops.

3. Print out and distribute the worksheets. Once students have finished their worksheets, they can cut out and glue pictures they found of other crops and glue them around the edges of the maze.
See if you can get the water from the river, through the canals and to the fields! Once you are done, label the crops below to find out what the Hohokam grew!
Prehistoric Pottery Sorting!

1. Explain that there were several prehistoric groups of people that occupied Arizona and other parts of the Southwest and that each group made and decorated pottery differently. Showing a map like the one below to illustrate this is particularly helpful.

![Map of the Southwest showing different prehistoric groups.](image)

2. Show some pictures of Southwestern pottery, especially Hohokam pottery, like the images below. Explain that these different pottery styles are helpful to archaeologists who can use them to tell which cultural groups lived here a very long time ago.

![Images of Hohokam pottery.](image)
Here is an example of a plainware pitcher. Plainware pottery was the first type of pottery made by the Hohokam: this type of pottery was continuously made over time. This is considered the ‘everyday’ use stuff and makes up about 90% of the Hohokam pottery that is recovered by archaeologists.

This is an example of a redware bowl. Redware is the second most common pottery type, it gained popularity and dominated later time periods of the Hohokam.

Here is a nice example of a red-on-buff pot. This type of decoration appears later and when we think of Hohokam pottery, red-on-buff is perhaps the most widely recognized type of pottery.

3. Talk about how it is very rare for archaeologists to find a complete pot. Often, they just find pottery fragments called sherds! How can archaeologists sort and study these fragments? There are different ways to sort sherds. They can look at what materials were used to make it (clay, temper, paint etc.), the form of the sherd (does it have a rim, handle etc.) and the decoration (are the sherds plain, decorated with geometric designs, animal designs etc.) We can illustrate the sorting and grouping of pottery sherds with a bead sorting activity!
Fill a bowl with an assortment of beads (or even buttons) of different colors, sizes, shapes and materials (wood, plastic, glass etc.).

Provide one bowl per group of students (smaller groups of 4 individuals or so).

Ask the students to sort their beads and group them together. Ask them why they sorted and grouped them the way they did. Did everyone do this the same way? Some may have sorted by color, by similar materials, by size etc.

4. Conclude the lesson by asking students what they think archaeologists can learn from studying pottery sherds. Some talking points include:
   - The designs and type of pottery may tell us how old a piece of pottery is and who may have made it.
   - Different designs may indicate trade.
   - Residue analysis can tell us what was stored or cooked.
   - Different types of clay may tell us how far early people had to travel to obtain it.
Puzzling Petroglyphs!

1. Start by showing your students some Hohokam rock art like the images below. Explain that the Hohokam people made two different types of rock art. The first type is called petroglyphs which are images that are formed by pecking into a rock with a hand-held stone. The second type are called pictographs. This type of art is created by using pigments such as hematite to paint an image on to the rock. Pictographs don’t stand up very well to natural processes such as rain and weathering, therefore they are incredibly rare!
2. Rock art comes in a variety of designs! Images of people, animals and geometric designs have been found. Sometimes it can be difficult to interpret what the artist was trying to depict. To illustrate this, try the following activity in your classroom! Give your students a word, for example, the word drought. Ask them to draw what they think a drought would look like. Get them to compare their pictures to others in the class. Did they all draw the word in the same way? People can draw and interpret the same things very differently, which can make it difficult for archaeologists to study rock art!

The word drought represented in three different ways!

3. Conclude the activity by stating that no one really knows why rock art was made. There are THOUSANDS of rock art sites across Arizona so we know that it was clearly important to the prehistoric people who lived here. Was it decorative, used as mnemonic devices, astronomical observations or perhaps it was ceremonial? Ask your students what they think petroglyphs mean and what would they find important to represent?