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To the Maya, the Sun, Moon, and other celestial bodies represented powerful gods that influenced human events. Scribes developed their sophisticated calendar by watching the skies. Fixed observation points, such as this pyramid at Tikal in Guatemala, were constructed to align with astronomical events and features on the landscape.
Teacher Guide

Overview
This document will help educators guide learning experiences through the *Maya: Hidden Worlds Revealed* special exhibit at the Natural History Museum of Utah.

Before Your Visit
1. Choose one or more of the extension activities to do as a class before your visit.
2. Give EACH ADULT a copy of the Exhibition Map so they can guide students.
3. Make a copy of the Student Exhibit Exploration guide for each student. They can be printed in black and white and on both sides of the paper. You may want to have a clipboard for students.
4. You can also decide to do the “Student Exhibit Exploration- Found Poetry” activity instead of, or in conjunction with, the regular Student Exhibit Exploration guide. It is recommended that for this age group, the found poetry activity be explained in advance, and the poem completed as a whole class, or with small groups that have adult guidance.

During Your Visit
1. Suggest to chaperones to stagger their entry into the exhibit so that a new group enters every 10 minutes or so.
2. Ask your students to name a few things they are curious about or questions they have about the Maya exhibit. Alternatively, you could provide the questions for them to consider while exploring.
3. Suggestion: Due to the size of the exhibit and time constraints, students may not be able to see everything they would like to. The activities presented here could work as a jigsaw activity where each group does part of the Student Exploration and reports back to the class on their findings. Or, instruct your chaperones to choose one activity or question from each area to focus on.

Possible Post-Visit Activities
1. Collect all the photos, stelae, and glyphs students have printed out during their visit. Display these “artifacts” in a collage or on a bulletin board.
2. Debrief with students. What was their favorite part? Did they learn something new?
3. If students could make their own special exhibit about Utah, what might they put in it?
4. Decide if you would like students to do a writing/drawing activity, and either use the writing prompts provided or create your own.
5. Read *Museum of Me* by Emma Lewis.
**Unlocking the Past**– What would the number 36 look like in Maya numbers? How about the answer to 81-15? 5x5? Draw your answers here.

<table>
<thead>
<tr>
<th>36</th>
<th>81-15=</th>
<th>5x5 =</th>
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**Master Builders**– Examine the Maya city. What kinds of materials did the builders use? How did the builders change the land?

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**Histories in Stone**– Choose three artifacts. In each space below, draw and label a diagram of each. What do you notice about the artifact? Who might have used it? Do you use something like it today, and if so, what do you use it for?

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**Playing for Your Life**– Lift the ball. How heavy is it? Would you like to play games with this ball? Why or why not? What other things do you use that are made of rubber?

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</table>
**Watching the Skies**—Try to build a corbel arch. Was it harder than you expected? How have arches you’ve seen in other places looked similar or different to this kind?

**Death and Rebirth**—For the ancient Maya, caves were sacred places, like being in a church for some people. What similar places or activities do you have in your life?

**The Dead Tell Tales**—Examine the bones. What do the bones tell you about Maya society?

**Story in Pictures**—The ancient Maya modified their teeth, had tattoos, and elaborate jewelry and hairstyles, and altered their appearance in many ways to tell specific stories about themselves. What do people do today to change their appearance and tell stories about themselves? How do you choose to make your appearance unique?
Making a living—The pictures and designs in Maya weaving both ancient and today tell stories. Create and draw your own weaving pattern. What story does it tell?
Student Exhibit Exploration - Found Poetry

Found poems are literary collages, phrases taken from existing texts, refashioned and reordered, and presented as poems. During your exploration of the Maya: Hidden Worlds Revealed exhibit, you will find phrases that stand out to you, that create pictures in your mind or invoke emotions. The phrases can be simple or extensive but should be something that you likely wouldn't read in your everyday reading. The phrases should remain essentially as they are but feel free to add connecting words and phrases. This activity can be done individually but is an excellent approach for creating a group poem.

1. Write down phrases, word for word, from the exhibit. You should have 10-15 phrases, so if this is a group effort you can decide how many phrases each person will need to create the poem. It is helpful to have a few extra phrases.
2. Build the poem by organizing the phrases in different orders. You can add in small words like “and, the, except”, etc. Pieces can be nonsensical but should work to paint a picture in reader/listener minds.
3. Share your piece. What is the point of view? Is it happy, sad, silly, angry, or tired? Does is sound like it is about today or long ago? What is your (or your group’s) interpretation of the poem?

Write your found phrases here:
Student Writing Prompts

1. What three things did you learn about people during the Maya Classic Period that were new to you, surprising, or just cool? Describe those things in detail and add illustrations.

2. Maya people still live in many of the same places that their ancestors lived during the Maya Classic Period. Using the internet, find places that many Maya people live and write a few details about those places.

3. Where have you seen representations of Maya and their lives? Was it in a movie, a book, or something in your life? Is your family Maya, or do you have Maya relatives and/or friends? Write about what you knew about Maya culture and people BEFORE you visited the exhibit and what new things you learned.

4. Some of the foods Maya people eat are avocados, corn, beans, squash, potatoes, tortillas, tamales, and chocolate. Do you like to eat any of these foods? If you were creating a Maya restaurant, what foods would you serve? Research Maya foods online and create a lunch or dinner menu for your restaurant. Add in pictures and/or illustrations.

5. Write a fictional story with you as a character living in Central or North America during the Maya Classic Period. Your character can be any gender or age that you wish and can either be part of the Maya culture or someone who is directly affected by Maya trade and/or cities. How does your character act, feel, worship, survive, dress, and what position do they have in society? Make sure to include and resolve one major conflict in the story. You may need to do further research online.
# Student Writing Assignment Grading Rubric

<table>
<thead>
<tr>
<th>Scoring Elements</th>
<th>1- Below Expectations</th>
<th>2- Approaches Expectations</th>
<th>3- Meets Expectations</th>
<th>4- Exceeds Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHMU Exhibition Information</td>
<td>Includes no or little Museum exhibition content using examples, quotes, or other references.</td>
<td>Presents some information from Museum exhibition but may lack accuracy or relevance.</td>
<td>Accurately presents information from Museum exhibition relevant to the purpose of the prompt to develop argument or claim.</td>
<td>Accurately and effectively presents important information from Museum exhibition to inform or explain.</td>
</tr>
<tr>
<td>Independent Research</td>
<td>Includes no or little independent research and uses few or no examples, quotes, and references.</td>
<td>Presents some information from independent research, but may lack accuracy, relevance, or proper citation.</td>
<td>Accurately presents and cites relevant information from independent research.</td>
<td>Accurately and effectively presents and cites relevant information from independent research.</td>
</tr>
<tr>
<td>Focus</td>
<td>Attempts to address the prompt, but is off-task.</td>
<td>Addresses the prompt, but the focus is uneven.</td>
<td>Addresses the prompt with an adequately detailed response; stays on task.</td>
<td>Addresses key aspects of the prompt effectively; stays on task.</td>
</tr>
<tr>
<td>Development</td>
<td>Attempts to inform or explain, but lacks details.</td>
<td>Informs or explains by presenting some details.</td>
<td>Informs or explains using appropriate details.</td>
<td>Informs or explains by providing detailed and relevant information.</td>
</tr>
<tr>
<td>Conventions</td>
<td>Lacks cohesion and control of grammar, usage, and mechanics appropriate to grade level.</td>
<td>Demonstrates an uneven command of standard English conventions appropriate to grade level.</td>
<td>Demonstrates a command of standard English conventions, with few errors as appropriate to grade level.</td>
<td>Maintains a well-developed command of standard English conventions, with few errors. Response includes language and tone appropriate to the audience, purpose, and specific requirements of the prompt.</td>
</tr>
<tr>
<td>Social Studies Content Understanding</td>
<td>Content is irrelevant, inappropriate, or inaccurate.</td>
<td>Shows uneven understanding of disciplinary content related to the prompt.</td>
<td>Presents generally accurate disciplinary content related to the prompt.</td>
<td>Presents accurate and relevant disciplinary content to enhance understanding of the topic.</td>
</tr>
</tbody>
</table>
Classroom Extension Activities and Resources

Physical Education

Play the Maya Ballgame

Introduction
The ballgame was a significant part of Maya life, with political, religious, and social implications. The ballgame gave neighboring cities an alternative to war for settling disputes. Players would wear protective gear and elaborate headdresses that resembled animals players may have identified with.

The spiritual story most associated with the ballgame is that of the Maize Gods and the Hero twins. The story goes that the Maize Gods were killed and buried on the ballgame court for being noisy and bothering the Lords of Xibalba (the Underworld). One of the Maize Gods had children with the daughter of the Lord of the Underworld. These twin sons were known as the Hero Twins, and they resurrected their father and uncle on the ballgame court. The Hero Twins went on to many adventures, and the Maize Gods remained on the court for humans to honor. The Maya, therefore, believed that the ballgame was necessary to their survival, for the Gods would punish them otherwise.

Kid-Friendly Version
You will need two hula hoops and a ball. For indoor activities, a soft ball is best. The hula hoops need to be held upright, either by adults or perhaps taped to the wall, across the playing area from each other. The height of the hoops can be adjusted to the children playing, as low as the floor for Kindergarteners. Split the class in two teams and have them try to get the ball through their team’s hoop without using hands or feet.

Art

God's Eye Craft

Introduction
The God’s Eye, or Ojo de Dios, was a ritual tool that was believed to protect a person while they prayed. Ancient Maya made one for each child, with a large Ojo surrounded by four smaller Ojos, one added each year on the child’s birthday.

Supplies
- Popsicle sticks
- Glue
- Yarn
- Pipe cleaners
Instructions
1. Take two popsicle sticks and glue them together in the center (this can be done prior to the activity for younger students).
2. Take a length of yarn and wrap it around the center diagonally one way and then the other, making an “X” on the popsicle sticks.
3. Wrap the yarn around one leg of the popsicle sticks, and then the next.
4. Continue on until the popsicle sticks are as covered as you’d like.
5. Attach a pipe cleaner to one leg to create a hanging loop.
6. To change colors, cut the yarn and tie on a new color.
7. Pipe cleaners can be used instead of yarn for younger students

Worry Dolls Craft

Introduction
According to Maya legend, when worrying keeps a person awake, he or she can tell the worry to a Worry Doll and then place the doll under his or her pillow. The doll then takes over the worry so the person can sleep peacefully through the night.

Materials
- Popsicle sticks
- Pipe cleaners
- Clothespins
- Twigs
- Yarn
- Thread
- Fabric scraps
- Beads
- Bells
- Glue
- Markers
- Other art supplies

Instructions
1. Pick a body.
   a. Popsicle sticks or twigs can be attached together to create a body. Pipe cleaners can be twisted together.
   Clothes pins already resemble a body.
2. Using the art supplies available, dress and decorate your doll.
   a. Yarn, thread, and pipe cleaners can be wrapped around the body to create clothes.
   Beads and bells can be strung onto thread and tied to the body. Markers can be used to color on clothes or a face.
3. Have children practice talking to their doll. They can tell a worry or a happy thought or even just a story.
   Six dolls per child is traditional but definitely not a requirement.
Science

Build Arches and Pyramids

Introduction
Mesoamerican arches are a type of corbel arch, rather than the Roman (or true) arch. Rather than having a keystone at the top to hold everything together, they used bricks to span the top of the arch and then another to hold those bricks in place.

Maya pyramids were very different from the more famous Egyptian pyramids. They tended to be shorter and blockier, because they were meant to be climbed. Generally, the top was flat rather than coming to a point so a priest could stand on the platform.

Materials
- Legos (or similar)
- Wooden blocks
- Other construction materials
- Images of Maya arches, pyramids, or other structures

Instructions
1. Show students images of Maya arches and pyramids
2. Give them the materials and allow them to try building arches and pyramids.

Astronomy

Ancient Maya developed an accurate calendar by painstakingly measuring the movements of the sun, moon, planets, and stars. They believed Earth was the center of the universe and that the celestial bodies were gods and goddesses moving to and from Earth and the underworld (Xibalba). They based many aspects of their daily lives on these predictions, including when to plant crops, the ascension of rulers, and when to start a war.

One reason Maya were so accurate in their predictions is because they recognized patterns. By noting the location of a particular planet every night, they were able to discern when that planet reached the same spot again, which is how they were able to accurately determine the length of a Venus year. Maya calculated an Earth year using the same celestial body we do today: the sun.
Social Studies

Maya people continue to live in the areas now known as Central America, including Guatemala, Belize, western Honduras, El Salvador, and southern Mexico. We have evidence that the ancient Maya traded with Utah natives. That is an incredible distance to travel!

There are many opportunities to discuss geography at a level consistent with what you're already teaching your students. Here are some ideas:

- Have students identify Central America on a map or globe
- Have students identify Utah on a map or globe
- Identify the cardinal directions (Utah is north and west of Central America)
- Discuss how far Maya had to travel to get to Utah
- Compare and contrast the climate in Central America with the climate in Utah
- Compare and contrast the topography of Central America with the topography of Utah

Mathematics

Maya mathematics can be used with the math lessons you're currently doing in the class. Some additional ideas:

- Have students write their age
- Have students write a date, perhaps their birthday or the current date
- See if students can find the pattern and continue on. Can they figure out thirty? Fifty? One hundred?

Maya Math Key

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Literature

*Silly Billy* by Anthony Browne; a story about a boy and his worries that goes well with the Worry Doll activity.

*You Wouldn't Want to Be a Mayan Soothsayer* by Rupert Matthews and David Salariya; describes the daily life of the son of a Maya priest with descriptions of Maya math, calendars, art, astronomy, the ball game, and various other aspects of Maya life.

*Rain Player* by David Wisniewski; A boy challenges a god in a ball game to save his people from disaster in an action-packed story with beautiful illustrations.

*Gods and Goddesses of the Ancient Maya* by Leonard Everett Fisher; Describes twelve of the most prominent Maya gods and goddesses in a child friendly way.

*The Chocolate Tree* by Linda Lowery and Richard Keep; The story of how a Maya god brought chocolate to the people of Earth.

*The Corn Grows Ripe* by Dorothy Rhoads; a young boy must help his family survive after his father is injured.

*Museum of Me* by Emma Lewis; a little girl visits a museum, and finds that her favorite museum of all is waiting for her at home.

*The Mayan Fact and Picture Book: Fun Facts for Kids about Mayans* by Gina McIntyre; Reference book; good for pictures.

Music

Maya music utilizes a lot of instruments appropriate for young students, including drums, flutes, horns, maracas and other percussion instruments.

There are several great examples on YouTube:

- [https://www.youtube.com/watch?v=_Tl7DCbC1OE](https://www.youtube.com/watch?v=_Tl7DCbC1OE)
- [https://www.youtube.com/watch?v=OpIIUV1jrII](https://www.youtube.com/watch?v=OpIIUV1jrII) (there are birds in this recording)
- [https://www.youtube.com/watch?v=36UL4dprTXg](https://www.youtube.com/watch?v=36UL4dprTXg)

If you have the instruments available, have students try to recreate the music in their own way. You can also discuss rhythm, tempo, beat, timbre, and melody using Maya music.

The website “Mama Lisa” has sheet music and lyrics for a Maya folk song called Xtoles, including both Maya and English versions. [https://www.mamalisa.com/?t=es&p=713](https://www.mamalisa.com/?t=es&p=713)
Teacher Resources

Maya Classic Period Timeline

Maya Classic Period
250-900 CE

What was going on in Utah during same period

200 CE | 400 CE | 600 CE | 800 CE
---|---|---|---
300 CE | 500 CE | 700 CE | 900 CE

What was happening in the rest of the world.

200 CE | 400 CE | 600 CE | 800 CE
---|---|---|---
300 CE | 500 CE | 700 CE | 900 CE

Late Basketmaker II
50-500 CE

Basketmaker III
500-750 CE

Pueblo I
750-900 CE

Fremont Culture in Utah
1-1301 CE

Late Antiquity
200-700 CE (varies)

Early Middle Ages
400-1000 CE

NATURAL HISTORY
MUSEUM OF UTAH
Rio Tinto Center | University of Utah
-Distinctive signs of Maya culture started appearing around 1800 BCE

- The Maya classic period was a time of large-scale construction, the growth and influence of cities, the recording of monumental inscriptions, and significant intellectual and artistic accomplishments. During the Classic period Maya, the political landscape was dominated by multiple city-states that were engaged in a complex network of alliances and enmities. Major Maya cities during the classic period were Chichen Itza, Palenque, Tikal, Copan, and Uxmal.

### Maya Classic

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>250 CE</td>
<td>The beginning of the rise of the great Maya cities ruled by powerful leaders.</td>
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<tr>
<td>400 CE</td>
<td>The Maya highlands fall under the domination of Teotihuacan, and the disintegration of Maya culture and language begins in some parts of the highlands.</td>
</tr>
<tr>
<td>500 CE</td>
<td>The city of Tikal becomes the first great Maya city.</td>
</tr>
<tr>
<td>600 CE</td>
<td>Teotihuacan destroyed by an unknown event, along with the empire it supported. Tikal becomes the largest city-state in Mesoamerica, with as many as 500,000 inhabitants within the city and its surrounding area.</td>
</tr>
<tr>
<td>683 CE</td>
<td>The Emperor Pacal, king of the city-state Palenque, dies at the age of 80 and is buried in the Temple of the Inscriptions. His right to the throne was disputed, but during his reign he raised the city from relative obscurity to a great power.</td>
</tr>
<tr>
<td>751 CE</td>
<td>Long-standing Maya alliances begin to break down. Trade between Maya city-states declines, and inter-state conflict increases.</td>
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<tr>
<td>869 CE</td>
<td>Construction ceases in Tikal, marking the beginning of the city's decline.</td>
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<tr>
<td>899 CE</td>
<td>Tikal is abandoned.</td>
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<tr>
<td>900 CE</td>
<td>The Classic Period of Maya history ends with the collapse of the southern lowland cities. Maya cities in the northern Yucatan continue to thrive.</td>
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### Ancestral Puebloan Cultures in Utah

#### Late Basketmaker II

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<th>Year</th>
<th>Event</th>
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<tr>
<td>50 CE</td>
<td>Ancestral Puebloans time period when people began living in pit houses and occasionally dry caves, farming corn and squash, and were proficient basket makers and weavers. They also hunted game and gathered wild foods. They were called basketmakers because of their skill in making baskets for storing food and toasting seeds and nuts. They also wove bags, sandals, and belts out of yucca.</td>
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#### Basketmaker III

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<th>Year</th>
<th>Event</th>
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<tr>
<td>500 CE</td>
<td>Ancestral Puebloans began making a utilitarian gray pottery that allowed for better cooking and storage. Beans were introduced through trading with southern peoples, and bows and arrows replaced spear hunting.</td>
</tr>
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</table>

#### Pueblo I

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<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>750 CE</td>
<td>Farming and pottery-making groups established the stable villages considered typically Puebloan, made of stone, with south facing windows and doors. Later, these groups were to leave Utah and establish Perhaps the most significant developments in Pueblo I times (A.D. 750 to 900) were 1) the replacement of pithouse habitations with large living rooms on the surface; 2) the development of a sophisticated ventilator-deflector system for ventilating pitrooms; 3) the growth of the San Juan redware pottery complex (red-on-orange, then black-on-orange, pottery manufactured in southeastern Utah); and 4) some major shifts in settlement distribution, with populations concentrating in certain areas while abandoning others.</td>
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### Fremont Culture

<table>
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<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>400 CE</td>
<td>People of the Fremont culture (developed independently from the Ancient Puebloan Culture) are farming during this period in Southern Utah, with supplemental hunting and gathering. Their dwellings were less elaborate than their Puebloan neighbors, and they also occupied caves and pithouses. The two most distinguishing characteristics of the Fremont culture are their pottery and their rock art. The pottery is a thin, plain gray pottery. Their pictograph and petroglyphs stand out because of trademark human figures with trapezoidal or triangular bodies.</td>
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<tr>
<td>450 CE</td>
<td>Parowan branch of the Fremont are living in southwestern Utah.</td>
</tr>
<tr>
<td>650 CE</td>
<td>Uinta branch of the Fremont is established in Utah and Colorado. These sites were located at higher elevations.</td>
</tr>
<tr>
<td>700 CE</td>
<td>San Raphael branch of Fremont Culture was established in Utah and Colorado. Villages had both pit houses and above-ground masonry with multiple rooms. There were dome-shaped adobe granaries. The figures depicted in art by this branch had detailed facial features, were wearing jewelry, had elaborate hairstyles and skirts, and it was possible to distinguish between male and female figures.</td>
</tr>
<tr>
<td>780 CE</td>
<td>The Fremont people move to the Sevier River area of Utah and Nevada.</td>
</tr>
<tr>
<td>800 CE</td>
<td>Uinta branch developed larger villages with adobe and stone masonry structures built into shallow, circular pits.</td>
</tr>
</tbody>
</table>

### Elsewhere in the World

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>200 CE</td>
<td>Diophantus lived in this century in Egypt, and was possibly of Greek heritage. He is known as the “Father of Algebra”. He also was the first to recognize that fractions are numbers, and made important advances in mathematical notation, becoming the first person known to use algebraic notation and symbolism.</td>
</tr>
<tr>
<td>313 CE</td>
<td>The Edict of Milan established tolerance for Christianity in the Roman Empire.</td>
</tr>
<tr>
<td>500 CE</td>
<td>Toilet paper is invented in China.</td>
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<tr>
<td>577 CE</td>
<td>Record of the use of “small sticks of pinewood impregnated with sulfur” (what we now call matches) in China.</td>
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<tr>
<td>610 CE</td>
<td>Birth of Islam.</td>
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<tr>
<td>740 CE</td>
<td>Moors invade Spain.</td>
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<tr>
<td>800 CE</td>
<td>Windmill invented in eastern Persia at least by this century.</td>
</tr>
<tr>
<td>800 CE</td>
<td>Gunpowder invented during this century in China.</td>
</tr>
<tr>
<td>868 CE</td>
<td>First example of a complete and dated print book is the Diamond Sutra from the Tang Dynasty in China.</td>
</tr>
<tr>
<td>900 CE</td>
<td>Vikings discover Greenland.</td>
</tr>
</tbody>
</table>
Vocabulary

Artifact, Archaeologist, Excavate
Artifacts are objects made, used, or changed by humans. Archaeologists excavate (reveal, record, retrieve) and study artifacts from the past.

Ceiba (Ceiba Pentandra), also known as the silk cotton or kapok tree
Trees of the Ceiba genus can grow up to 50m tall, with swollen trunks and large buttresses. As the sacred world trees of the Maya, Ceibas represent the intertwined celestial, earthly underworlds.

Classic Period of Maya Culture, 250–900 AD
Much of Maya: Hidden Worlds Revealed focuses on this time period of Maya culture. But research indicates that distinctive signs of Maya culture first start appearing around 1800 BC.

Corbel Vault
Typical Maya architectural features included the corbel vault. The corbel vault has no keystone, as European arches do, making the Maya vault appear more like a narrow triangle than an archway.

Elite
Small group of people who control the major share of wealth and/or political power.

Glyph
Symbolic figure or character, also called a hieroglyphic. All Maya glyphs are formed from various combinations of nearly 800 signs in the forms of humans, animals, supernatural creatures, objects, and abstract designs. These signs can express meaning, denote sound values, or be pictorial (the picture is the word), and are used to write words, phrases, and sentences.

Glyphs appear as very intricate squares laid out in a grid like pattern. Each square is a glyph block that actually contains one to five glyphs, often forming a word or even a phrase. You will see glyphs on many objects throughout the exhibition.
Huipil (we-peel)

Traditional garment made of a piece of rectangular cloth folded and usually stitched down the sides, worn as a blouse. Huipils have been made and worn in this region for centuries. Huipils are still worn by the Maya today.

Maize (corn, Zea mays)

A staple food of Maya, past and present, with a major role in all aspects of Maya life. The Maize God story introduces you and your students to Maya: Hidden Worlds Revealed in the introductory theater. Many images or partial symbols of the Maize God occur on artifacts you will see in the exhibition.

Scribe

Scribes prepared art and text for public displays glorifying the ruler’s triumphs. Most Maya could not read and write during Classic times, so scribes had a very important role in Maya society to reinforce the power and authority of Maya rulers. They were from the noble class, sometimes from the royal family of the city.

Stela (plural: stelae)

Freestanding stone pillars, often of limestone, with figures carved in relief and hieroglyphic text.

Tumpline

A strap attached at both ends to a load, and placed over the top of the head, just back from the hairline, so the weight of the load pulls straight down in alignment with the spine. The bearer then leans forward, allowing the back to help support the load. The Maya used this device (and still do today) to carry loads as heavy as their own body weight. Since much of the terrain in the region is uneven, narrow, or rocky, this was more efficient than using wheels or beasts of burden. The Maya did not use either during Classic times.
Popol Vuh
The Popol Vuh is the Maya creation story. This version is from the Smithsonian National Museum of the American Indian. There is a video that tells the story (with proper pronunciation) with Maya images in the background here.

The Story
This is an account of the beginning, when all was stillness, silence, and water. There was no light, no land, no plants, no people, and no animals.

Six deities, covered, in green and blue feathers, lay in the primordial waters: the Framer and the Shaper, Tepew and Quetzal Serpent, along with Xpiyacoc and Xmucané. These deities, helped Heart of Sky, also known as Hurakán, create the Earth. Their spirit essence and their miraculous power gave the Earth its creative energy.

Now the land had a heart, and they called it Heart of Earth. To separate the sky from the Earth they planted a tall ceiba tree, making space for all life. The roots penetrated deep into the nine levels of the Maya Underworld, the trunk was on the surface of the land, and the branches reached up to the thirteen levels of the Maya Upper-world.

The plants were next created to live on the Earth. And then the animals were created. But the animals did not speak and could not worship. So the deities decided to create human beings from mud. But these first humans had no souls and were not good “keepers of the days.” They destroyed them in a great flood.

The deities tried another time, and created humans from wood. But the wooden people could not worship either, so they were destroyed. Those that survived are said to have become the monkeys in the trees.

The sky and Earth now existed, but there was no Sun and no Moon. A vain bird called Seven Macaw claimed to be the Sun and the Moon. But this was not true. Two amazing Twins, Hunajpu and Xbalanqué, defeated Seven Macaw, by shooting him with darts.

The Hero Twins were conceived, when their mother, Ixkik’, spoke to the decapitated head of their father, Hun Hunahpu, who spit on her hand from a cacao tree. Hun Hunahpu had been killed by the Lords of Xibalbá, the Underworld.

The Hero Twins became great ball players, and to bring their Father back to life, they challenged the Lords of the Underworld to a game in Xibalbá. The twins were permitted to play the ball game only after they had survived the dangerous trials set for them in the Underworld. Using great skill and cunning, the twins won the ball game, and this allowed their slain father to come back to life as the Maize God.

The Hero Twins left Xibalbá and climbed back up to the surface of the Earth. They continued up into the sky, becoming the Sun, and the Moon. Now that the Sun and Moon were in the sky and illuminated the Earth, the deities created the final form of human beings using white and yellow corn. Corn is the precious substance that ultimately succeeds in producing true, and enduring, humans.
Legend of the Worry Doll

Worry dolls were a Maya tradition many years ago. Dolls are typically made by attaching sticks together and wrapping thread around the “limbs”. See the activity instructions in the Classroom Extension Activities and Resources section.

The Story

In the hills outside a small city, lived an old man with his daughter, Flora, and her two children, Maria and Diego. Like most Guatemalan people they had no electricity and no running water. They lived together in a small, one room thatched hut of mud and wood. The home was heated with a large fire in the middle of the room. Grandfather had taught them all to be excellent farmers just like their Maya ancestors. This year was very bad, as a drought had prevented most of the crops from growing. Even though the ancient Maya had developed methods of building giant underground storage tanks to hold water just in case of drought, this farm had none. Despite being very poor, the family was usually happy. They all worked very hard and they were thankful for the colorful clothes that Flora was able to make them. The children enjoyed and learned much from their grandfather’s stories. They all worked together to survive.

They would all wake up with the Sun and tend to the fields, just in case it rained. Then they would spend time gathering lots of firewood. Maria and Diego would then go to school for the day. It was hard for them because the teacher taught in Spanish which was not what they spoke at home. Some of their friends were there, but several of them didn’t go to school because they needed to stay home and help their parents.

Because of the drought, it was very hard to gather enough food for the day. For dinner, the children would grind some maize and Mom would use it to make tortillas for the family. It wasn’t much, and it didn’t prevent them from getting hungry the next day. After dinner, when the chores were done, Mother would go back to weaving and the children would kiss the hands of Grandfather and bow to him as they asked him to tell one of his stories. As grandfather told his story they would lay back in their hammocks and listen.

Grandfather’s stories were the best because they were true. His stories had been handed down word by word from his grandfather and his grandfather’s grandfather. Diego had already heard the stories enough to repeat them, but he would have to wait until he had children who wanted to hear them. They listened proudly to their heritage as grandfather described how the ancients had mapped the stars long before anyone else in the world. They were captivated by hearing that their ancestors had developed mathematics long before anyone else in the world. The Maya developed the concept of zero being a number. The Maya had a system based on 20 as opposed to the modern system of 10. Maria liked the way grandfather would count to twenty by wiggling her ten fingers then her ten toes.

Best of all was when grandfather would describe the silly things. They giggled out loud as he would describe people tying boards to youngster’s foreheads because they believed a flat forehead to be a sign of beauty. Diego almost fell out of his hammock as he laughed at his grandfather acting out how the ancients used to hang a bead of wax in front of their baby’s eyes in order to make the child cross eyed. They thought it was another sign of beauty.

As sleep was almost near for his grandchildren, grandfather would describe how the ancient Maya would perform sacrifices or bloodletting as an offering to any one of their 166 gods. At this point in the story, Maria would
always reach up and shake Diego's hammock to try and scare him. It always worked. The scream was also a signal to mom that it was time to put the weaving away and go to sleep. Flora put all her wonderful cloth into a basket underneath her son's hammock and went to bed.

While sleeping, Maria dreamed of flying with a Quetzal, a long-tailed bird which is the national bird of Guatemala. In ancient times the bird was thought to be a spiritual protector of the chiefs and it was a capital offense, punishable by death to kill one. Diego heard Maria making bird noises in her sleep and looked over the edge of his hammock to make fun of her. He was immediately startled by the outline of a thief grabbing his mother's cloth and running out of the house. “A — A ROBBER!” Diego screamed. His mother and grandfather woke up startled. “Where?” Maria asked. “He just ran out with all mother’s cloth!” Sure enough, the cloth was gone. Flora began to cry, “That was two season’s worth of work! Now I’ll have nothing to sell at the market!” Flora sobbed the rest of the night.

When the children were leaving for school the next day, Mother was still laying in her hammock and was coming down with a fever. Grandfather would stay with her. When the children returned from school in the afternoon, mother's fever was worse and they were nearly out of food. Maria said, “Diego we need to help! I have an idea.” Maria looked in the basket mother kept her cloth in. She was looking for anything that might be left. All that remained in the basket were several scraps of cloth in odd colors and odd shapes. Maria took the basket outside and dragged her brother along. “Go collect small twigs and bring them here,” she asked him. Diego whined and said “Wwwhhhy?” “We have to help mother.” Maria replied. He scampered off to go find twigs without another word.

Maria began organizing scraps of cloth, sorting them by color and size. When Diego returned with the twigs, they both started working. When mother or grandfather asked what they were doing, they said it was a secret. Mother was still running a fever and grandfather was trying to make her feel better. The kids kept working.

Late in the night, they ran out of cloth scraps. When they looked at what they had made, they saw dozens of little tiny dolls in little tiny clothes. They had also made little pouches for the dolls to sleep in. As they packaged the dolls up, six in a pouch, Maria remembered one of grandfather’s stories about a magical doll who would grant its owner several wishes. The thought that these dolls were magical was funny to Maria, but for some reason she actually felt it was true. She hoped for her family's sake that they were magical.

Maria selected her favorite colored pouch and pulled each of the dolls from it. She lined them up in the palm of her hand and began speaking to them. “Good night my tiny friends, my family is in trouble and we need your help. Our fields are dried up, my mother is sick, we have no food or money, and my mother’s cloth was stolen. We need your help little ones.” Maria placed the dolls back in the pouch then placed them under her pillow. She was able to sleep very soundly that night, and when she awoke, the dolls were out of the pouch and all laid out in a circle on the table.

“I was certain I put them in the pouch under my pillow last night,” she said to herself.

Wiping the sleep from her eyes, she convinced herself she must have imagined putting them under her pillow. That morning, Maria and Diego prepared to go to the market. They put all the doll pouches into a large wrap that can be used as a bag or a head covering and began walking to market. Mother managed to get out of her hammock and said, “Where are you going?
They replied, “To market.”

While Mother puzzled over what they would do there, Grandfather wished them good luck.

As Maria and Diego made the long walk to market they encountered many people. They made sure to say “Hi how are you?” It would be considered rude to not say hello. The people would reply, “Fine, thank you.” The two of them walked along barefoot, without complaining. Secretly they both wished they had the sandals that many other people used for long walks, but they knew they could not afford that luxury.

Maria's thoughts turned to bargaining. She had seen her mother and grandfather do it, but she had never had to do it herself. It was expected at the market that people would barter for a fair price. She worried that she would not have the skills needed to barter. Even if she could, what was a fair price for little dolls? She had never seen anyone sell them before. She decided to make up a price as she was bartering. For now, she focused on getting a good spot at the market. A good location would make all the difference she thought to herself. She did find a good spot, it was at the end of an aisle right next to a shoe seller.

As they laid out their dolls on the sidewalk, the shoe seller recognized them and asked them where their mother was with her beautiful cloth. They told him of what had happened. Then Maria informed him that all they had to sell today were these dolls. The shoe seller examined the tiny dolls and puzzled over why someone would want such small dolls. Maria piped up and said there was magic in the dolls. The shoe seller laughed and said there was magic in his shoes too but that wouldn't help them sell.

“We shall see” said Maria, “we shall see.”

As the day dragged on, sales were not going well, the market was almost closing for the day and they hadn't sold any dolls. They were both getting worried. As Maria began putting away her dolls, a man dressed in fine clothes and a large hat in a very soft slow vice that is typical of Guatemalans asked “What are you selling?”

“Just these little dolls,” Diego said.

“Magic Dolls!” chimed Maria.

The man adjusted his hat and with a smirk said “Magic, huh? I could use a little magic. I'll take them all!” They hurriedly wrapped up the dolls and he handed them a wad of money.

“Thank you.” said Maria.

The stranger said, “You're welcome,” and was gone before Maria could turn around and start bartering for how much change he would get back. She counted the money in disbelief. 6,600 quetzals! (~$940) “That's enough for us to live on for a year” she exclaimed! She was not exaggerating.

Diego started jumping up and down at the thought of being able to eat tonight. He and Maria bought some food and then headed for home. As they walked, they chewed on chicle which is a natural gum that comes from tree sap (and that's where Chiclets gum came from).

“Yes, we did; we sold dolls!” Diego screamed.

“Magic Dolls,” Maria added.

They explained everything to mother and grandfather.

Mother said, “It doesn't sound like magic; it sounds like my children worked very hard.”

“But how do you explain that you are feeling better?” asked grandfather.
“That's just the way trouble is,” exclaimed Flora, “sometimes it just comes and goes.”

“How do you explain the rain?” yelled Diego. “What rain?” they all asked.

“THAT rain,” he pointed. Sure enough, the fields were getting rained on as they were talking. The drought was over.

When Maria was getting ready for bed she noticed something in her pocket, when she pulled it out, it was the same pouch of dolls she had spoken to the night before. How had they gotten there? She was sure she sold them to the man.

In the pouch she found a tiny little note that said, “Tell these dolls your secret wishes. Tell them your problems. Tell them your dreams. And when you awake, you may find the magic within you to make your dreams come true.”

There was no name on the note, just a little drawing of a man in a big hat. The mysterious stranger.
The Story of the Finding of Corn

This story, called simply 'The Finding of Corn', comes from The Bright Feather and Other Maya Tales by Dorothy Rhoads (Doubleday, Doran & Co., Inc., Garden City, New York, 1932). The illustrations, in the style of Jean Charlot, were drawn by Lowell Houser. The collection of stories were told in Guatemala and Mexico to the author, to her sister Sylvanus G. Morley and to J. Eric Thompson (both famous Maya scholars), who published them originally in Field Museum Publication Vol. XVII no. 2.

The Story

It happened like this...

Man had discovered the vegetables. He had cut down the vegetable tree and had planted papaya, squash, sapote, and the other vegetables and fruits. But he did not have corn. All the corn in the world was hidden under a big rock at the edge of the world, and only the leaf-cutting ants knew where it was.

Once a week the leaf-cutting ants marched in an army to the edge of the world and crawled under a crack in the rock. And when they marched home again, each ant carried on its head a grain of maize. The leaf-cutting ants guarded their secret carefully. Always before they left their home, they sent out scouts to see if the trail was clear. And again the scouts went out before the ants left the rock.

It happened, however, in spite of the scouts, that one day the fox discovered the ants as they were leaving the rock. And he frightened them and took their grains of corn.

That night, when the rest of the animals were gathered about eating their supper, the fox refused to eat. The other animals said nothing, but each one thought to himself: ‘This fox is a sly creature. He has found something new to eat and does not want us to know what it is. Tomorrow I shall follow him and find out for myself.’

And the next day the animals followed the fox. And the next day. And the next. And nothing happened. The fox always went to the edge of the world and sat there, hidden in the bushes, watching the rock.

The following week the leaf-cutting ants marched to the rock. They marched in an army through the crack, and when they marched out again, each ant balanced on its head a grain of maize. As soon as he saw them, the fox pounced on the ants, and the animals pounced on the fox. And there were not nearly enough grains to go round.

So the animals discovered where the corn was hidden. But they could not get under the rock. The jaguar tried, and the wild pig, and the monkey, and the armadillo. And the ocelot tried, and the rabbit, and the squirrel. But they could not get under the rock. Even the red ants were too large to crawl through the crack to where the corn was hidden.

‘We will have to get Man to help us,’ said the animals.

Man came, and he picked at the crack with his machete. But he could not get under the rock. And he pushed against the rock with his shoulder and strained and shoved. But he could not get under the rock. And he pounded against the rock with his fists and swore great oaths to the gods. But the rock did not move or yield.

Woman suggested:

‘Let us ask the help of the Balams.’

‘The Balams!’ scoffed Man. ‘The mightiest of the giants! Do you think the Balams will trouble themselves about a rock?’

Woman did not answer. But she dug a bit of resin from one of the trees. And she set fire to the resin. And the perfume of copal ascended into the skies.

And the Balams were pleased. They came with their thunderbolts and their arrows of lightning and loosed them
against the rock. Again and again they hurled their bolts against the rock. And the rock did not yield.

Then the Balams called Chac, who was the mightiest of the Balams. And Chac, the Thunder God, came with his lightning and thunder. But before he loosed them, he called to him the woodpecker.

‘Woodpecker,’ said the Chac, ‘go to the rock at the edge of the world. Tap over the entire surface of the rock, and come and tell me where the weakest point is.’

The woodpecker hastened to do the Chac’s bidding. He flew to the end of the world, and for a day and a night and a night and a day he tapped the surface of the rock. And he flew to tell Balam which was the weakest point.

Then Chac hurled his thunderbolt against the weakest point.

But the rock did not yield.

Again he hurled his thunderbolt, and the rock began to tremble.

Once more Chac hurled his bolt. And this time with a roar the rock was splintered, and a river of maize grains rushed out.

The animals pounced on the new food and ate it greedily. But Man hurried away to plant the seed.

From that day to this, when he eats his tortillas and his tamales, Man remembers the Balam. And when he plants his milpa (cornfield), he always offers his prayers to the Chac.

That is how it happened.
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