

MAYA

A simulation of Mayan civilization during the seventh century

PETER ROTH, the author of MAYA, became fascinated with the Mayan civilization while traveling extensively through Central America during the 1980s. He and his wife Pauline have explored every major Mayan archeological site, including the six in this simulation. The Roths especially enjoyed meeting the Mayan people of today; they gained a high respect for these proud people, who combine hard work with a ready sense of humor.

Peter has taught at Zephyr Cove Elementary School at Lake Tahoe, Nevada, for over ten years. His interests include travel, scuba diving, and rocketry. He received his B.A. in advertising and journalism from San Jose State University. For Interact he has also written WAR LORDS OF JAPAN, a simulation of the shogun history of feudal Japan.

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10200 Jefferson Boulevard
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Culver City, CA 90232
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OVERVIEW - 1

Your students return to a time early in the seventh century deep in the jungles and highlands stretching from the Mexican Yucatan Peninsula, through Guatemala, and into Northern Honduras. As Mayan Indians they are in the process of creating one of the greatest and most fascinating civilizations of early times. As members of a confederation

of independently ruled city-states, they cooperate diplomatically, pool their knowledge, and trade their goods to create a mysterious and powerful empire. In this MAYA simulation, your students re-create this lost empire by forming teams and then becoming Mayan citizens playing roles living in historic city-states. Within the simulation they uncover secrets of the Mayan past.



Mayan Chief

Each team begins MAYA with three types of goods that they produce. These goods come in the form of trading strips. Strips are provided by the teacher and are exchanged by the student Ambassadors with other teams in the market place—a teacher designated spot in the classroom. Teams must acquire the goods of other teams through trade in order to meet the minimum requirements for the four sacrifices and to increase their teams overall wealth.

Teams create advantageous trade situations by using deductive reasoning. They deduce which goods the other teams have or lack, as well as figure out the amounts of goods the other teams produce.

Each team also receives a packet of partial information for completing the SECRET CODEX, or Mayan book of knowledge. Each team is given different information. This packet includes information about the Mayan number system, Mayan calendar, the principal Mayan deities, and some of the Mayan prophecies. By sharing their information with other teams, High Priests must complete the pages of their SECRET CODEX.

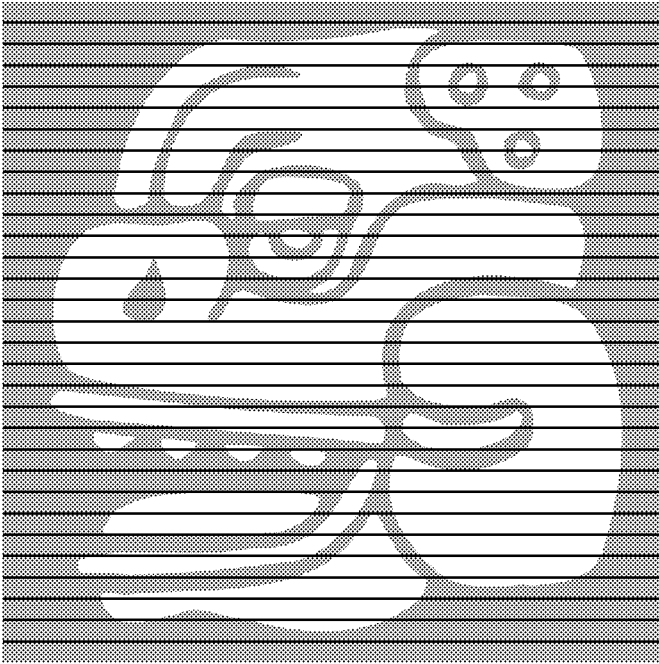
During daily team meetings are called to plan four things:

- deciding what goods are needed for sacrifice
- deciding what information is needed for the SECRET CODEX
- sharing ideas on how the daily art project will be done
- practicing the day's cooperative skill

All team members have a part in the structured meeting presided over by the Noble Lord. After a five- to 10-minute meeting, members go about their daily roles.

OVERVIEW - 2

SECRET



CODEX
















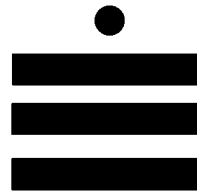
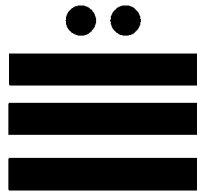
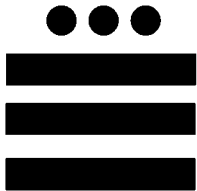
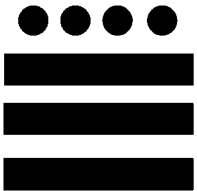

As each day ends, team members account for all valuables and corn they have traded, calculate their city's population, and record new information in their SECRET CODEX. This information is placed in the team's folder along with completed art work and math projects which the teacher checks later.

The teacher rewards excellent work with strips of corn which add to a city's wealth and population. The more advanced students are challenged to earn extra corn strips by completing a research report.

When MAYA concludes with a final Grand Ceremony, students will have gained considerable knowledge and appreciation of the splendid Mayan past. Concurrently, students will have learned the value of and practiced the techniques of working cooperatively with their peers in order to achieve personal goals and group success for their Mayan city.

NUMEROS MAYAS

(Teacher reference only)

 1	 2	 3	 4	 5
 6	 7	 8	 9	 10
 11	 12	 13	 14	 15
 16	 17	 18	 19	 20

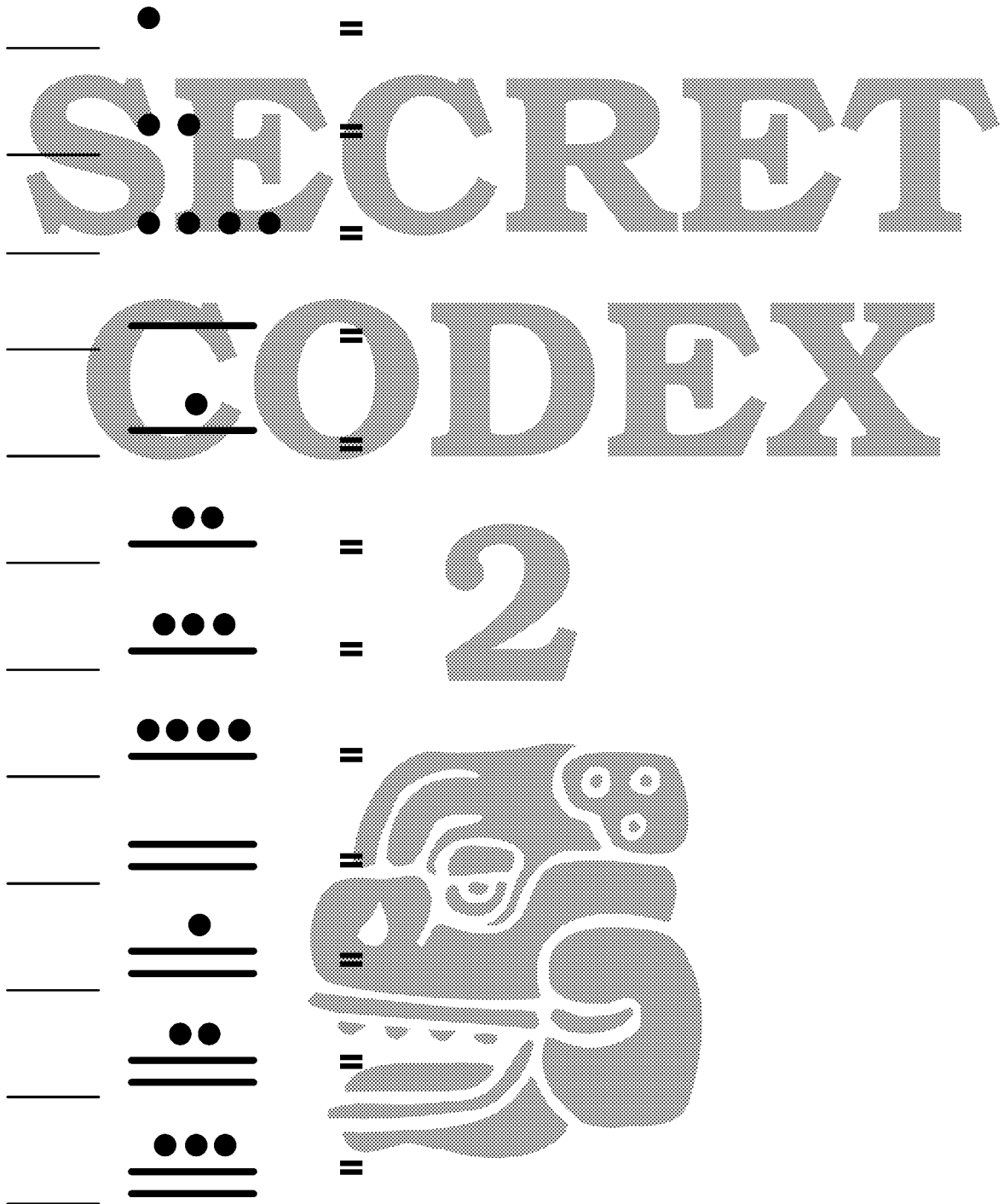
 Below are the glyphs associated with the Mayan numbers.

 0	 1	 2	 3	 4
 5	 6	 7	 8	 9

City of: _____

Mayan Date: _____

The prophecies of the numbers are ...



Noble Lord: _____

Mathematician: _____

High Priest: _____

Scribe: _____

Ambassador: _____

FATE CARDS: Unworthy Sacrifices

Cut apart and laminate—if possible.

Chac thinks that your sacrifice should have been better. Mild rains let you grow only enough corn to meet your consumption. No gain or loss.

Maybe your sacrifice could have been a little better, but Chac has been busy making rain. You grow 20 bushels of corn. You are indeed lucky Chac was not insulted.

Chac deems your sacrifice to be insufficient. Poor rainfall means not enough to eat. Lose 10 bushels of corn.

Clouds cover your city and Chac allows the rain to fall. Your corn harvest is 10 bushels.

Chac is happy with your sacrifice. Great amounts of corn have been harvested. You harvest 30 bushels.

How dare you insult the great rain god Chac with your measly little sacrifice. A dry spell means you lose 10 bushels of corn.

Chac demonstrates his generosity with heavy rainfalls. He hopes you will demonstrate your generosity at the next celebration. Your harvest is 30 bushels.

The rain god Chac has provided your city with enough rain to grow enough corn for 20 bushels.

Chac awards your efforts to please him with good rainfall. Your harvest is 20 bushels.

Chac knows you could have been more generous with your sacrifice. Light rainfall means you only grow enough corn to meet consumption. No gain or loss.

FATE CARDS: Worthy Sacrifices

Cut apart and laminate—if possible.

Chac demonstrates his generosity with heavy rainfalls. He hopes you will demonstrate your generosity at the next celebration. Your corn harvest is 30 bushels.

Chac deems your sacrifices to be insufficient. Poor rainfall means not enough to eat. Lose 10 bushels of corn.

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HEADRESS PROJECT - 1

The Final Grand Ceremony

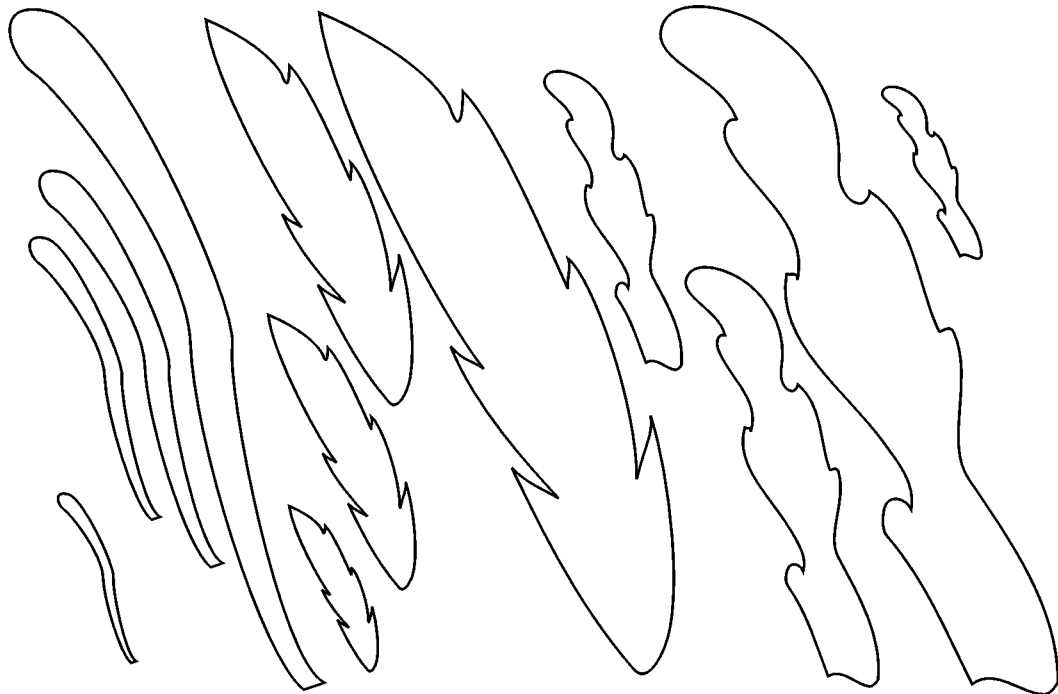
This celebration honors the Mayan Empire's cities great leaders. Each city must construct a magnificent headdress of many colorful feathers for this event. (The city's greatness of is symbolized by the glorious and elaborate headdress its Noble Lords wears.)

Each city's **Scribe** should follow these suggestions while preparing his/her city's ceremonial headdresses:

1. **Beginning** Begins this project no later than Day 11. The headdresses will take two to three days to complete, and the Scribe may need other group members' help after they have finished their other work.
2. **Construction paper colors** Obtain six colors of construction paper: green, red, blue, yellow, purple, and orange. Cut the construction paper into the following sizes and amounts for each group:
 - 1-1/2" x 3" (12 of each color)
 - 3" x 5" (6 of each color)
 - 3" x 7" (6 of each color)
 - 4" x 12" (1 of each color)
3. **Feather patterns** Each city creates its own feather patterns for 3", 5", 7", and 12" feathers. This way each city's headdress will be unique. Cut the feathers from the construction paper. The Scribe should use the paper's full length so the feathers don't end up shorter than they should be.

Note:

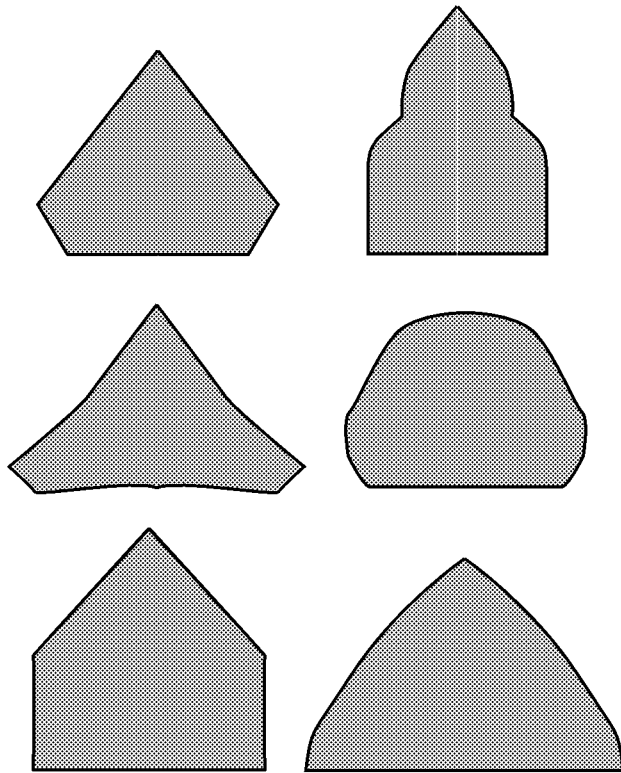
The feathers patterns on the bottom of this page have been proportioned to show you how they will look if you make them in 3", 5", 7", and 12" lengths as suggested in #3.



HEADDRESS PROJECT - 2

4. Shape patterns

Each headpiece should be around 14" to 16" across the base. As Scribe you may select the shape you and other city members most like, or you may wish to create your own new shape. *Be creative, but work to remain as true to Mayan design as you can.*



5. **Cutting** Cut six headbands from heavy tagboard around 25" x 3". Glue and staple these headbands to the headpieces, centering them along the base. (Cut a couple of extras for "backup.")



Note the elaborate feathers in this chief's headdress.

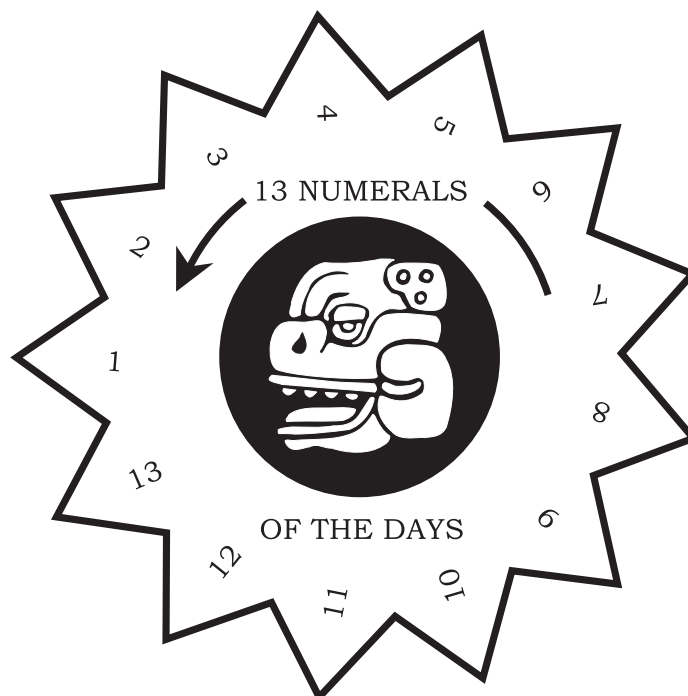
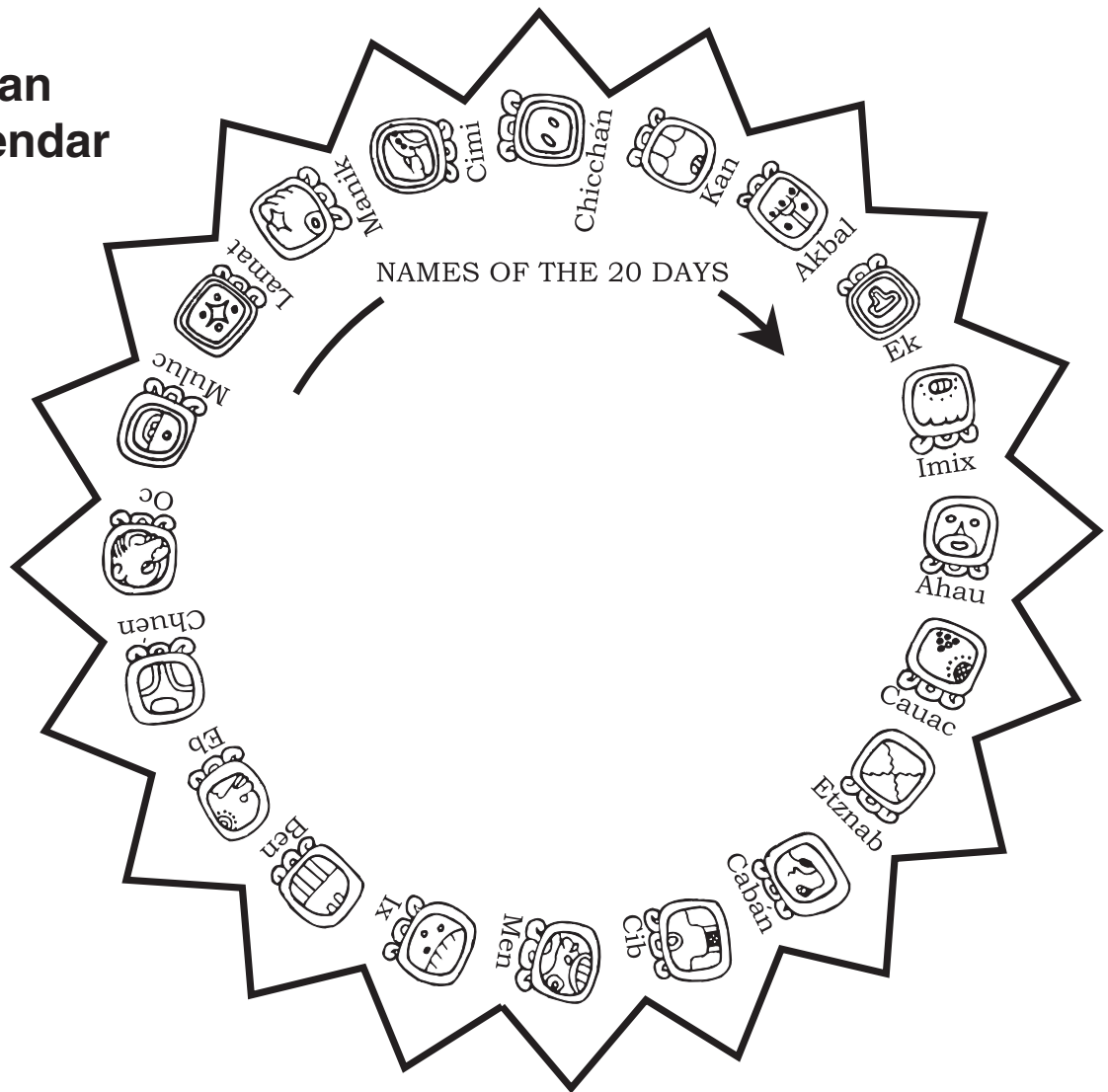
6. **Gluing** Once all feathers have been cut, have Scribes begin gluing the 7" feathers along the top of the headpieces, working their way down. When they have used all of the 7" feathers, begin with the 5" feathers continuing to work down. Finish the bottom section with the 3" feathers being sure that all areas get filled in and no part of the tagboard is showing. Top off the headdress with the 12" feathers arranged in a floppy fashion along the top and sides.
8. **Wearing** Personally fit each headband to the group member who will be Noble Lord on the last day. Noble Lords will wear the ceremonial headdress during the final ceremony, but he or she should share the honor with the other team members if they desire.
7. **Finishing** Be sure you have finished your gluing the day before the Final Grand Ceremony so the glue will be dry. If necessary, you can make last minute fixes with a stapler.

TEAM PACKETS

(This page and next eleven pages)

**Mayan
Calendar**

Directions: Duplicate seven of these calendars—one for each city-team folder/packet and one for yourself so that you can check students' work. Cut apart the two parts and laminate them if possible. **Note:** Directions for duplicating, cutting, and laminating other materials for the six teams are found on the next six sequential pages in this Teacher Guide.



Note: Directions for using this Mayan Calendar are found at the top of page 4 of the Student Guide.

Directions: Duplicate one copy of this sheet. Cut apart the pieces, laminate them (if possible), and hand them out in the sequence given in the Daily Directions.

UXMAL TEAM PACKET



Ah Mun
(God of Corn)

DEITY
CARD

UXMAL

UXMAL

Trading Schedule

Day 1/6 = Chichen Itza
Day 2/7 = Palenque
Day 3/8 = Tulum
Day 4/9 = Tikal
Day 5/10 = Mayapan

Trading Valuables

(See strips)
• 30 Zapotec Idols
• 20 Cacao Units
• 10 Silver Units

UXMAL NUMBER PROPHECY CARD

Your lucky number is ...

 **8 Uaxac**

It is associated with the God Ah Mun, the maize god. He has an effect on the amount of corn that is grown.

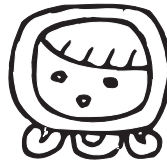
UXMAL NUMBER PROPHECY CARD

 **12 Lahca**

Represents a favorable number for trading

UXMAL

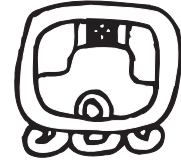
Mayan Days



IX (14)



MEN (15)



CIB (16)

UXMAL

Picture Glyphs of the Mayan Numbers



0



1



2



3



4



5



6



7



8



9

 In your *SECRET CODEX*, draw these glyphs next to the numbers they represent.

PALENQUE TEAM PACKET

Directions: Duplicate one copy of this sheet. Cut apart the pieces, laminate them (if possible), and hand them out in the sequence given in the Daily Directions.



Xaman Ek
(God of the
North Star
and Travelers)
**DEITY
CARD**

PALENQUE

PALENQUE

Trading Schedule

Day 1/6= Mayapan

Day 2/7= Uxmal

Day 3/8= Chichen Itza

Day 4/9= Tulum

Day 5/10= Tikal

Trading Valuables

(See strips)

• 30 Obsidian Points

• 20 Quetzal Feathers

• 10 Turquoise

PALENQUE NUMBER PROPHECY CARD

Your lucky number is ...

 **6 Uac**

This number is associated with the God Chac, It has an effect on the amount of rain that will fall.

PALENQUE NUMBER PROPHECY CARD

 **5 Ho**

Represents a favorable number for trading

PALENQUE

Mayan Days



IMIX (1)



EK (2)



AKBAL (3)

PALENQUE

Mayan Numbers



5



10



15



20