The Mighty Mesos:
Amazing Achievements of the
Ancient Aztecs & Maya

Grades 5 & 6
Spanish & Social Studies

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The Mighty Mesos: Amazing Achievements of the Ancient Aztecs & Maya

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Subject Areas: Spanish & Social Studies

Topic: Ancient Latin Americans

Targeted Grade Level: Upper Elementary Grades 5–6

Time Frame: 2 ½ –3 week unit

Unit Summary:

By completing a WebQuest and participating in classroom activities, students will investigate and learn about the various aspects of ancient Aztec and Maya life (diet, social pyramid, professions, religion, trade, and agriculture) and their significant architectural, astronomical, and mathematical contributions through various resources (videos, short classroom plays, book resources, and online sites). The final product will be an independent project (based on Howard Gardner’s theory of multiple intelligences) of the student’s choice that will be shared with classmates through an oral presentation.
Goals/National Standards addressed:

I. National Standards for Foreign Language Learning

CULTURES
Gain Knowledge and Understanding of Other Cultures
*Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.
*Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.

CONNECTIONS
Connect with Other Disciplines and Acquire Information
*Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
*Standard 3.2: Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures.

COMPARISONS
Develop Insight into the Nature of Language and Culture
*Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

COMMUNITIES
Participate in Multilingual Communities at Home & Around the World
*Standard 5.1: Students use the language both within and beyond school setting.
*Standard 5.2: Students show evidence of becoming life-long learners by using language for personal enjoyment and enrichment.


II. National Standards for Social Sciences, World History, Grades 5–12
NSS-WH.5-12.3 ERA 3: CLASSICAL TRADITIONS, MAJOR RELIGIONS, AND GIANT EMPIRES, 1000 BCE–300 BCE

The student in grades 5–12 should understand:
- the development of early agrarian civilizations in Mesoamerica.
- major global trends from 1000 BCE–300 CE.

NSS-WH.5-12.4 ERA 4: EXPANDING ZONES OF EXCHANGE AND ENCOUNTER, 300–1000 CE

The student in grades 5–12 should understand:
- the rise of centers of civilization in Mesoamerica and Andean South America in the first millennium CE.
- major global trends from 300–1000 CE.

NSS-WH.5-12.5 ERA 5: INTENSIFIED HEMISPHERIC INTERACTIONS, 1000–1500 CE

The student in grades 5–12 should understand:
- the expansion of states and civilizations in the Americas, 1000–1500.
- major global trends from 1000–1500 CE.

NSS-WH.5-12.6 ERA 6: THE EMERGENCE OF THE FIRST GLOBAL AGE, 1450–1770

The student in grades 5–12 should understand:
- how the transoceanic interlinking of all major regions of the world from 1450 to 1600 led to global transformations.
- how European society experienced political, economic, and cultural transformations in an age of global intercommunication, 1450–1750.
- economic, political, and cultural interrelations among peoples of Africa, Europe, and the Americas, 1500–1750.
- major global trends from 1450 to 1770.


Understandings:
Students will understand that…

- geography shaped Aztec and Mayan civilizations in central and southern Mexico.
- Aztec empire was a warrior culture, ultimately defeated by the arrival of Hernán Cortés.
- Mayan civilization was characterized by great cities, trade, and warfare.
- the Maya made great contributions to math, science, writing, architecture, and art.
- while the decline of the Aztecs was clearly due to the arrival of Hernán Cortés, the decline of the Maya is less definitive and there are several theories.
- the Maya continue to exist today in Mexico.

Essential Questions:
- Where did the Aztecs and Maya live and how did geography influence the structure of their civilizations?
- Who were the Aztecs and the Maya?
- What significant historical contributions did the Aztecs and Maya make and what caused their decline?

Performance Tasks:
1. Goal: Present to small group Aztec & Mayan contributions following research through WebQuest; group members assess performance by rubric.
2. Goal: Pass individual Unit Quiz based on whole- and small-group presentations and discussions.
3. Core Goal: Research and prepare Oral Presentation to class based on one aspect of Mesoamerican history, using WebQuest links and Information Resource Center print media. Presentation based on rubric.

Brief Description of Learning Activities:
1. Whole-group introduction: Students will learn overview together as class about Aztecs (2 days) and Maya (2 days) and view videos (Schlessinger Media’s Ancient Civilizations for Children, Grades 3–7 series, Ancient Maya and Ancient Aztec Empire) with accompanying worksheets.
2. Students will complete a map of Mesoamerica.

3. Students will complete a timeline of both the Aztec and Mayan civilizations to illustrate their distinct time periods and overlap.

4. Students will complete individually and review collectively a Venn Diagram comparing and contrasting the Aztec and Mayan civilizations for shared characteristics and distinct differences.

5. Students are assigned to small groups (group names are Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan) and to topics (Religion/Myths, Writing, Science, Math, Farming, and Architecture). Students conduct their research via WebQuest and report back to their groups as topic experts, ‘jigsaw-style’ to prepare their group mates for the Unit Quiz. Performance assessed by rubric.

6. Students will learn vocabulary, including: maize, chinampas, stele, obsidian, city-state, causeway, glyph, peninsula, sarcophagus, metate, cacao, tribute, codex, equinox, and pok-ta-pok.

7. Students will read excerpt from the Popol Vuh: The Hero Twins myth.

8. Students will learn about and complete worksheets on Mayan Math.

9. Students will re-create the Mexican Flag, emphasizing the center symbol.

10. Students will participate in a Reader’s Theatre based on bartering and class structure in the Mayan marketplace (whole-class activity).

11. Students will research and prepare a creative 5-minute culminating Oral Presentation based on Howard Gardner’s multiple intelligences theory to the class on one aspect of either Aztec or Mayan history and civilization using WebQuest links and Information Resource Center’s print media. Performance assessed by rubric.
The Mighty Mesos Webquest:
Amazing Achievements of the
Ancient Aztecs & Maya

This WebQuest and all supporting handouts can also be found at:
http://teacherweb.com/WQ/MiddleSchool/AncientMexico/

This WebQuest is divided into the following sections:

Introduction
Task
Process
Group Expert Instructions
Evaluation
Conclusion
Links
Print Resources
For the Teacher
Introduction

• Where did the Aztecs and Maya live and how did geography influence the structure of their civilizations?

• Who were the Aztecs and the Maya? What did they look like? What did they wear? Eat? Do for fun? What was the role of men, women, and children? How did they structure their societies?

• What significant historical contributions did the Aztecs and Maya make and what caused their decline?

These are the questions we will seek to answer in this unit.

The Ancient Mesoamericans, namely the Aztecs and the Maya, were amazing civilizations that lived in what comprises present-day Mexico. The geography of Mexico helped to shape both civilizations, but they were very different! While the Aztec empire is best characterized as a warrior culture and known for their calendar and gods, the Maya, who were not without human sacrifice themselves, were characterized as traders and builders, and made contributions to math, science, astronomy, writing, and architecture. Both groups were defeated by Spanish conquistadors, but descendants of the Maya still exist in Mexico today.
**Task**

First, we will learn together as a class to introduce the two fascinating cultures of Mesoamerica and get an overview of the Aztec and Maya civilizations.

Next, you will jigsaw into small groups to learn more details about these amazing societies of Ancient Mexico. You will be assigned to one of the following groups, representing some of the Mesoamerican city-states:

- Palenque
- Calakmul
- Toniná
- Ek-Balam
- Edzná
- Teotihuacan

In these groups, you will be responsible for teaching your group mates as the Group Expert about one of the following sub-topics of Mesoamerican culture so that they are prepared for our Unit Quiz:

- Religion
- Writing
- Science
- Math
- Farming
- Architecture

Finally, at the end of this unit, you will create an individualized project to present to the class, so while we are studying this unit, keep this in mind and if something triggers your curiosity, that might be a great topic to explore in more detail!

There are many links to webpages and additional print resources for you to help you find the information you need. All the materials for this unit that you will need can be downloaded under the Handouts of this WebQuest.
**Process**

Note: All of the underlined items can be found in Appendix A (attached) and online in the “Handouts” section of the WebQuest.

1. Our Mighty Mesos Unit will last approximately 3 weeks. We will have a whole-group introduction. You will learn the overview together as a class about Aztecs (2 days) and Maya (2 days) and view videos (Schlessinger Media’s Ancient Civilizations for Children, Grades 3–7 series, *Ancient Maya* and *Ancient Aztec Empire*). You will complete the K-W-L Chart before and after viewing the video, as well as completing the video worksheets.

2. In class, you will complete a Map of Mesoamerica with respect to the Aztecs & Maya.

3. You will recreate a timeline of both the Aztec and Mayan civilizations to illustrate their distinct time periods and overlap, using the Timeline Handout.

4. You will complete individually and review collectively a Venn Diagram comparing and contrasting the Aztec and Mayan civilizations for shared characteristics and distinct differences.

5. You will be assigned to small groups (group names are Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan) and to a topic (Religion/Myths, Writing, Science, Math, Farming, and Architecture). You will conduct your research via WebQuest and report back to your groups as topic experts, ‘jigsaw-style’ to prepare your group mates for the Mighty Mesoamericans Unit Quiz (they will do the same for you!). Group reporting performance assessed by rubric by group mates. Please use the Small Group Report Notes worksheet and the Small Group Performance Evaluation.

6. You will learn the new Unit Vocabulary.

7. You will read an excerpt from the Popol Vuh: The Hero Twins at the
following Web site: http://mayas.mrdonn.org/herotwins.html

8. You will learn about and complete 2 worksheets on Mayan Math.

9. You will read about & color the Mexican Flag, emphasizing the center symbol and Aztec myth.

10. You will participate in a Reader’s Theatre on Collecting Taxes and Trade based on bartering and class structure in a whole-class activity.

11. You will research and prepare a creative, culminating independent final project (see directions in Unit Project Ideas and Final Project Proposal) to the class on one aspect of this unit that piques your curiosity, using the suggested WebQuest Links and Print Resources. Performance will be assessed using the Unit Project Rubric.
**Group Expert Instructions**

**Group Topic Expert: Religion/Myths**
As a member of your assigned small group (Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan), you will conduct research on Aztec & Mayan Religion by using the Mighty Mesos Links and report back to your group to teach your fellow group members what you have learned. By doing so, you will be preparing them for the Unit Quiz. Your performance as the Group Topic Expert on Religion will be assessed on a rubric by your fellow group mates.

**Group Topic Expert: Writing**
As a member of your assigned small group (Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan), you will conduct research on Aztec & Mayan Writing by using the Mighty Mesos Links and report back to your group to teach your fellow group members what you have learned. By doing so, you will be preparing them for the Unit Quiz. Your performance as the Group Topic Expert on Writing will be assessed on a rubric by your fellow group mates.

**Group Topic Expert: Science**
As a member of your assigned small group (Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan), you will conduct research on Science by using the Mighty Mesos Links and report back to your group to teach your fellow group members what you have learned. By doing so, you will be preparing them for the Unit Quiz. Your performance as the Group Topic Expert on Science will be assessed on a rubric by your fellow group mates.
**Group Topic Expert: Math**

As a member of your assigned small group (Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan), you will conduct research on Mathematics by using the Mighty Mesos Links and report back to your group to teach your fellow group members what you have learned. By doing so, you will be preparing them for the Unit Quiz. Your performance as the Group Topic Expert on Math will be assessed on a rubric by your fellow group mates.

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**Group Topic Expert: Farming**

As a member of your assigned small group (Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan), you will conduct research on Farming and Agriculture by using the Mighty Mesos Links and report back to your group to teach your fellow group members what you have learned. By doing so, you will be preparing them for the Unit Quiz. Your performance as the Group Topic Expert on Farming will be assessed on a rubric by your fellow group mates.

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**Group Topic Expert: Architecture**

As a member of your assigned small group (Palenque, Toniná, Calakmul, Ek-Balam, Edzná, and Teotihuacan), you will conduct research on Aztec & Mayan Architecture by using the Mighty Mesos Links and report back to your group to teach your fellow group members what you have learned. By doing so, you will be preparing them for the Unit Quiz. Your performance as the Group Topic Expert on Architecture will be assessed on a rubric by your fellow group mates.
Evaluation
You will have 3 different assessments for our Mighty Mesos Unit:

1. Mighty Mesos Unit Quiz

2. Small Group Evaluation – based on how well you taught your group mates as Group Topic Expert. You can see the Group Member Evaluation Rubric.

3. Final Independent Project – based on some aspect of the unit that you found especially interesting and wanted to learn more about. You can see how you will be evaluated on the Final Project Rubric.

Conclusion
You have done it!

You have learned about the Mighty Mesoamericans and their rich contributions to civilization in the areas of religion, writing, science, math, farming, and architecture. You have learned about how their cultures grew, how they were shaped by the geography and topography of Ancient Mexico, and how these groups declined with the arrival of the Spanish conquistadors.

As we end this unit, I hope that you have gained an appreciation for all the wonderful achievements of the Ancient Aztec & Maya. Who knows? You may even set out to discover city-states yet uncovered! If you want to explore these places with your families on a future vacation, there are some great Web sites to visit to get started:

Visit Mexico, Mexico’s Board of Tourism Promotion:
http://www.visitmexico.com/wb2/

U.S. Department of State, Mexico Country Information:
http://travel.state.gov/travel/cis_pa_tw/cis/cis_970.html
Links for Student Research

**Mexico:**
http://lanic.utexas.edu/la/mexico/

**Mesoamericans:**
http://www.angelfire.com/ca/humanorigins/index.html

**Aztecs:**
http://www.mexicolore.co.uk/azt_wel_new.htm
http://archaeology.asu.edu/tm/index2.php

Aztec Account of Conquest:
http://www.fordham.edu/halsall/mod/aztecs1.html

PBS: Fall of Aztecs:
http://www.pbs.org/conquistadors/cortes/cortes_a00.html

PBS: Legacy of the Conquest
http://www.pbs.org/opb/conquistadors/mexico/adventure3/a1.htm

Aztec Daily Life:
http://www.mexica.net/
http://atschool.eduweb.co.uk/nettsch/time/alife.html
http://library.thinkquest.org/C006206F/Aztecas_i.htm

Ancient Aztecs @ThinkQuest:
http://library.thinkquest.org/27981/

Mesoamerican Ballgames (Aztec & Maya):
http://www.ballgame.org/sub_section.asp?section=1&sub_section=1

Aztec Dress:
Aztec Religion & Farming:
http://www2.truman.edu/~marc/webpages/nativesp99/aztecs/aztec_template.html

Aztecs: Minnesota State e-Museum:
http://www.mnsu.edu/emuseum/cultural/mesoamerica/aztec.html

Aztec Calendar:
http://www.azteccalendar.com/

Aztec Mythology:
http://www.windows.ucar.edu/cgi-bin/tour_def/mythology/aztec.html

History of Chocolate:
http://www.essortment.com/all/historychocolat_rywi.htm

Aztec Timeline:
http://www.timelines.info/history/empires_and_civilizations/ancient_civilisations/mesoamerica/aztec/

A Drawing of Tenochtitlan:
http://www.worldtrek.org/odyssey/mexico/Tcity.html

Aztec Ruins in New Mexico:
http://www.nps.gov/azru/index.htm

Aztec Women:
http://www2.ivcc.edu/gender2001/Aztec_Women.htm

Aztec Cosmetics:
http://www.mexica.net/nahuatl/cosmetic.html

Aztec Writing: Codex Mendoza:
http://pages.prodigy.com/GBonline/awaztec.html

Aztec Schooling:
http://www.ancientworlds.net/aw/Post/241670

Aztec Life for Children:
http://www.digonsite.com/drdig/mesoamerica/19.html

Images of Aztec Daily Life:
http://www.mexicolore.co.uk/index.php?one=azt&two=lif
The Maya:
http://www.mesoweb.com
http://www.mayankids.com/

Mayan Astronomy:
  http://www.michielb.nl/maya/astro.html
  http://www.humanities-interactive.org/splendors/
  http://www.learner.org/exhibits/collapse/mayans.html

Mr. Donn’s Pages on the Maya (great resource!):
  http://mayas.mrdonn.org/dailylife.html

Mayan ThinkQuest by Jr. High in Ossining, NY
  http://library.thinkquest.org/J0112511/home.htm

CyberSleuth Kids Mayan Civilization:
  http://cybersleuth-kids.com/sleuth/History/Ancient_Civilizations/Mayans/index.htm

Mayan Calendar:
  http://www.webexhibits.org/calendars/calendar-mayan.html
  http://mayacalendar.com/mayacalendar.html

Mayan Civilization:
  http://www.indians.org/welker/maya.htm
  http://instructional1.calstatela.edu/bevans/mesoamerican/index.html

Collapse of the Maya:
  http://www.learner.org/interactives/collapse/mayans.html

Print Resources for Student Research


For the Teacher

I have used this unit in the classroom and have been amazed and thrilled by my students’ enthusiasm for and the creativity of their final projects. Feel free to email me with any questions, concerns, or suggestions about the information and curricular materials provided here: maureen.mcnicholl@gmail.com

This project is based on my 2009 Fulbright-Hays Seminar Abroad to Mexico. For five weeks, 16 teachers from all corners of the USA traveled from the tip of the Yucatán Peninsula to Mexico City, D.F., visiting 9 archaeological sites and over 11 cities throughout southern Mexico.

I can highly recommend this enriching opportunity for fellow teaching colleagues. To learn more about Fulbright-Hays seminars, go to: http://www.ed.gov/programs/iegpssap/sapfacts.html

Sources Cited

Ancient Civilizations for Children: Ancient Aztec Empire. Schlessinger Media: 2004, DVD.

Ancient Civilizations for Children: Ancient Maya. Schlessinger Media: 2006, DVD.


Projects Gallery

Aztec/Mayan Jeopardy Game for Class

Model of Aztec House
Mayanopoly

Flight of Cortes vs. Aztecs (Mexicas)

3-D Model of Kukulkan Pyramid, Chichén Itzá

Explaining Mexican handicrafts to classmates

Proud creator of Cenote dig game
Author of Mayan girl's diary in last days before the Spanish conquest

Explaining Sacred Cenote board game to class
Moctezuma model and biography

Mexico Gallery
Appendix A: Student Handouts

KWL Chart for the Mighty Mesos
*Ancient Maya & Ancient Aztec Empire* Video Worksheets
Outline Map of Mexico
Timeline: Aztecs & Maya
Venn Diagram: Aztecs vs. Maya
Small Group Report Notes
Small Group Performance Evaluation
Mighty Mesos Unit Vocabulary
Deciphering Maya Numbers Worksheet
Maya Math Worksheet: Addition and Subtraction
Mexican Flag
Reader's Theatre: Collecting Taxes
Trade is Lifeblood to the Maya
Aztec Society Pyramid Worksheet
Como leer un códice
Dresden Codex (Maya)
Procession to Sacred Cenote picture
Cortés attacks Tenochtitlán picture
Daily Life in Palenque picture
The Mighty Mesos Unit Project Ideas
The Mighty Mesos Final Project Proposal
Rubric: Mighty Mesos Unit Project
K-W-L Chart
Aztecas/Mayas
The Mighty Mesos Unit

<table>
<thead>
<tr>
<th>K (What you already know)</th>
<th>W (What you want to know)</th>
<th>L (What you have learned)</th>
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Ancient Maya: Video Worksheet

1. Describe a major Maya city such as Tikal or Chichén Itzá.

2. What major achievements in math and science were made by the Maya? Compare them to advances made by other ancient civilizations.

3. What was the Maya writing system like? Why was it unique in Native America?

4. People of Mayan ancestry still live in Central America and Mexico. What traditions have the ancient Maya passed down to their descendants?

5. What were some of the most important crops of the Maya?

6. What was life like for a Maya girl or boy? What did kids do for fun and how did they adorn themselves?

7. Give one theory for the rapid decline of the Maya civilization around 900.
Ancient Aztec Empire: Video Worksheet

1. Where did archaeologists find remains of Aztec buildings? What was special about where the ruins were located?

2. What was the Templo Mayor?

3. What name did the Aztec people call themselves?

4. Describe Tenochtitlán. Why did the Aztecs build causeways to the city?

5. What happened after the Mexica defeated other tribes in battle?

6. What was daily life like for an Aztec boy or girl?

7. Which animals were symbols for warriors?

8. Why did the Aztecs believe in making sacrifices to their gods?
When did the Aztecs live?

The Aztecs lived in the Valley of Mexico for over 200 years before the Spaniards conquered them in 1521. This time-chart shows the dates of the Aztec empire and of some other civilizations that existed in Mexico before then.

**STEP BACK IN TIME**

At home or at school set up a giant 'time line'. You need:

- a long piece of rope, string or clothes line (about 10 metres)
- some cards or pieces of paper
- pencils and clothes pegs.

Lay the rope on the ground and fix each end so it doesn't move.

You are going to walk back through time in Mexico. Every step is 100 years (a century). Start at one end of the rope and write the present date on a card (it's easier to round it up to AD 2000). Count steps down the rope to the Spanish Conquest and peg on another card with the date. Keep walking and pegging dates until you get back to the beginning of the Olmec period. Try decorating the cards with pictures of the right date, or you could make models.

Be a time detective and find some dates for important events in Mexico after AD 1500 and peg them on your line. You could make another time line for other parts of the world.
The Aztecs

Five hundred years ago the Aztecs were the most powerful people in their part of the world. Although most people know them as Aztecs, they called themselves Mexico. Does that give you a clue to the modern name of their country?

Many other groups of people also lived in the area, speaking many different languages. Some of them were allies and others traded with the Aztec, like the Maya in the south. Some, like the Tlaxcallans, were their enemies. Some people think there were about twenty million people in Mexico in around 1500 AD. One hundred years later, there were only about one to two million native people left. This was because of new diseases, war and slavery brought to the country by Europeans after the Spanish Conquest.

Can you find Mexico in an atlas? Find the two main mountain ranges and put them on this map. Can you see which areas are desert and which are rain forest? Mark those on this map too.
Aztecs vs. Maya

Venn Diagram Graphic Organizer
The Mighty Mesos Unit: Small Group Report Notes

Please take notes on your fellow groupmates’ reports to your small group so that you can use these notes to study for the Mighty Mesos Unit Quiz.

**Religion**

*Aztecs:*

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

*Maya:*

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

**Writing**

*Aztecs:*

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

*Maya:*

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

**Science**

*Aztecs:*

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________

*Maya:*

__________________________________________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________________________________________
Math

Aztecs:

Maya:

Farming

Aztecs:

Maya:

Architecture

Aztecs:

Maya:
DIRECTIONS: Honestly evaluate your fellow groupmates’ performances in your small group. Read the statements below. Use the following scale to rate their work and contributions.

Scale:
1 = Poor    2 = Moderately Poor    3 = Average    4 = Moderately Strong    5 = Strong

### Group Member 1: __________________ Expert Topic: __________________
1. How well did this group member complete his/her assigned tasks for the group?
   1  2  3  4  5

2. How would you rate how this group member reported back to the group with his/her expert topic information in a clear and logical manner?
   1  2  3  4  5

3. How would you rate his/her preparation for his/her part of the assignment?
   1  2  3  4  5

4. How would you rate the accuracy of his/her presentation?
   1  2  3  4  5

5. Overall, how would you rate this group member’s performance in the group?
   1  2  3  4  5

### Group Member 2: __________________ Expert Topic: __________________
1. How well did this group member complete his/her assigned tasks for the group?
   1  2  3  4  5

2. How would you rate how this group member reported back to the group with his/her expert topic information in a clear and logical manner?
   1  2  3  4  5

3. How would you rate his/her preparation for his/her part of the assignment?
   1  2  3  4  5

4. How would you rate the accuracy of his/her presentation?
   1  2  3  4  5

5. Overall, how would you rate this group member’s performance in the group?
   1  2  3  4  5

### Group Member 3: __________________ Expert Topic: __________________
1. How well did this group member complete his/her assigned tasks for the group?
   1  2  3  4  5

2. How would you rate how this group member reported back to the group with his/her expert topic information in a clear and logical manner?
   1  2  3  4  5
3. How would you rate his/her preparation for his/her part of the assignment?
   1  2  3  4  5

4. How would you rate the accuracy of his/her presentation?
   1  2  3  4  5

5. Overall, how would you rate this group member’s performance in the group?
   1  2  3  4  5

**Group Member 4:** __________________  **Expert Topic:** __________________
1. How well did this group member complete his/her assigned tasks for the group?
   1  2  3  4  5

2. How would you rate how this group member reported back to the group with his/her expert topic information in a clear and logical manner?
   1  2  3  4  5

3. How would you rate his/her preparation for his/her part of the assignment?
   1  2  3  4  5

4. How would you rate the accuracy of his/her presentation?
   1  2  3  4  5

5. Overall, how would you rate this group member’s performance in the group?
   1  2  3  4  5

**Group Member 5:** __________________  **Expert Topic:** __________________
1. How well did this group member complete his/her assigned tasks for the group?
   1  2  3  4  5

2. How would you rate how this group member reported back to the group with his/her expert topic information in a clear and logical manner?
   1  2  3  4  5

3. How would you rate his/her preparation for his/her part of the assignment?
   1  2  3  4  5

4. How would you rate the accuracy of his/her presentation?
   1  2  3  4  5

5. Overall, how would you rate this group member’s performance in the group?
   1  2  3  4  5

**Group Member 6:** __________________  **Expert Topic:** __________________
1. How well did this group member complete his/her assigned tasks for the group?
   1  2  3  4  5

2. How would you rate how this group member reported back to the group with his/her expert topic information in a clear and logical manner?
   1  2  3  4  5

3. How would you rate his/her preparation for his/her part of the assignment?
   1  2  3  4  5

4. How would you rate the accuracy of his/her presentation?
   1  2  3  4  5

5. Overall, how would you rate this group member’s performance in the group?
Mighty Mesos Unit Vocabulary

Look up the following words. Define each and use in a sentence relating to our unit.

Cacao: Pok-ta-pok:

Causeway: Tribute:

Cenote: Sarcophagus:

Chinampas: Stele (stelae):

City-state:

Codex:

Equinox:

Glyph:

Jade:

Maize:

Mesoamerica:

Metate:

Obsidian:

Peninsula:
DECIPHERING MAYA NUMBERS WORKSHEET

You are an archeologist who has discovered a tablet which translates Maya numbers into Arabic numbers. Unfortunately, parts of the tablet are broken and cannot be read. Using the translated numbers, decipher the rest of the numerals.

TRANSLATED NUMERALS:

\[
\begin{align*}
\cdot \cdot &= 2 \\
\ldots &= 8 \\
\ldots &= 13 \\
\cdot &= 20 \\
\ldots &= 33
\end{align*}
\]

Using the key above, translate the following Maya numbers into Arabic numerals:

a) \[\ldots = \____\]  
b) \[\ldots = \____\] 
c) \[\ldots = \____\]

d) \[\ldots = \____\]  
e) \[\ldots = \____\] 
f) \[\ldots = \____\]

g) \[\ldots = \____\]  
h) \[\ldots = \____\] 
i) \[\ldots = \____\]

j) \[\ldots = \____\]  
k) \[\ldots = \____\] 
l) \[\ldots = \____\]

m) \[\ldots = \____\]  
n) \[\ldots = \____\] 
o) \[\ldots = \____\]
MAYA MATH WORKSHEET
ADDITION AND SUBTRACTION

Solve the following equations and write the answers in both Maya and Arabic. Remember that decimal places move up vertically. Numbers at the bottom represent units of one, while those in the second decimal place represent units of 20.

a) • • + 三是 = ____
h) — — + ● = ____

b) — — — — — — = ____
j) ● ● ● — ● = ____

c) 二 = 五 = __________
f) 二 二 = __________

d) 二 — — — = ____
k) 二 二 = __________

e) 五 = — — = __________
l) 五 + 五 = __________

f) 二 = 五 = __________
m) — — — — — — = __________

f) 二 = 五 = __________
n) 二 — — — — = __________
The Mexican Flag

The Mexican Flag is a red, white and green banner whose center contains an eagle eating a rattlesnake while standing with its left claw upon a nopal cactus, and a half circle of green oak (enciño) on the left (symbolizing strength) and laurel branches on the right (symbolizing victory). The red symbolizes the blood that was shed during the battles for Independence. The white symbolizes purity. The green symbolizes the fertility of the earth.

The eagle eating a snake while perched upon a cactus is from an ancient Aztec legend in which the Aztec people were told by Huitzilopochtli (their God) that to find their promised land, they were to find the place where an eagle landed on a nopal cactus while eating a snake. After wandering for hundreds of years, they found the eagle on a small swampy island in Lake Texcoco. This new Aztec home was named Tenochtitlan (meaning "Place of the Nopal Cactus"), and in 1325, they built what is now called Mexico City.

This flag was first used on September 17, 1968 (it was decreed by Gustavo Díaz Ordaz); it was a variation on a flag first used in 1821.
APPENDIX E

Collecting Taxes - Maya

Narrator I: It is February. The peasant families are hard at work preparing their tribute. March is tribute month, and the peasants work hard to be ready. Every six months all those who are ruled by the Maya lord and ruler in Tulum pay their taxes. They cannot pay taxes in money, because they don't have any.

Narrator II: The first thing they prepare is their manta or cotton cloth. Every household has to provide a piece of woven cotton cloth which they have to bring to the temple and present to the batab. Even now the peasants are working on their manta.

Batab: I am the batab, or governor, of the city of Tulum, and I am also the tax collector. I am one of the leaders of the city, so, I, of course, do not have to pay taxes.

Lord and Ruler: I am the lord and ruler of the city of Tulum. I am the most important and most powerful person in the city. My word is law. I think it is an honor for the citizens of Tulum to pay taxes to support me and my family.

Priest: I am the priest of the Great Temple of Tulum. I preside over all of the religious ceremonies at the temple. I foretell the future. I help people keep the gods happy so we have good fortune in Tulum. Tax and tribute help to support the temple and the priests.

Plom: I am the plom, or merchant. I trade with people in far off lands for things, such as gold and pearls and exotic feathers. These are things that we do not have in our land. I do not pay taxes, although I use tribute, which is paid to me, for my business.

Nacon: I am the nacon, or war captain. I was chosen to be the nacon by the members of my clan, because I am a brave person. I do not pay taxes either.

Holpop: I am the holpop of the city of Tulum. I make decisions about what to do with people who are accused of crimes. I am also in charge of the musical instruments used in religious ceremonies. I do not pay taxes.

Tupil: I am the tupil for the city of Tulum. I make sure that the decisions and orders of the batab are carried out. I am one of the minor officials of Tulum, but I still do not have to pay taxes.

(The batab, lord and ruler, priests, nacon, holpop, and tupil are resting, reading, eating and drinking while the peasants are preparing their tributes.)
Narrator I: Each citizen, except those who are not taxed, pays his taxes in the product with which he trades. Beekeepers bring honey and wax; a fisherman might be called upon to provide dried fish. A family might provide pottery, blowguns, spears, feather headdresses, salt, shells, or food, such as corn, black beans, hot peppers, sweet potatoes, tomatoes or squash. [The peasants are preparing their tribute.]

Peasant I: It is time for us to journey to Tulum to pay our taxes. [Each peasant makes his or her way to the offices of the batah and presents to him their manta and their other tribute.]

Peasant II: Here, sir, are our taxes. [After presenting their taxes, they return home to continue working on their products.]

Batah: Thank you, peasants. [The batah goes to the priest and gives the manta to the priests. Then he goes to the lord and ruler, bows and presents half of all he has collected to the ruler.] Here, sir, is the tribute from your people.

[The batah goes to the plom and gives him a portion, and to the nacon, the holpec, and the tupil.]

[Everyone thanks the batah and pockets his portion of the tribute.]

Peasant III: Now, we can trade with each other what is left of our products, so we can get things we need but don't have.

Plom: Now that I have my tribute, I must set sail for distant lands to locate gold, pearls and other things which the Mayan peasants do not provide for their rulers and their city. [He departs.]

Peasant IV: Now, since we have finished working in our fields and we have finished trading amongst ourselves; for the things we need, we must return to Tulum for the second part of our tax.

Peasant V: This is our work-service. Without our work-service the temples, buildings and roads of Tulum would never be built. Since we have sowed our crops and have some spare time, we must give some of our time to the state of Tulum.

Peasant VI: The buildings in the city of Tulum were built by peasants. The decorations on the buildings were done by peasants. The great white sache roads were built by peasants. [Peasants depart to work on Tulum projects.]

Plom: I have returned from far off lands with gold and pearls. I must go to the batah to present the things I have. [He presents the things he has gotten to the batah who keeps a little for himself and gives the bulk of the treasures to the lord and ruler and to the priests to decorate the temples and to clothe the rulers.]

Narrator II: The end.
TRADE IS LIFEBLOOD TO THE MAYA

Diego has never been to the yaab, or market, until now. He was amazed by how huge it was—six hundred square feet in the plaza. As he looked around, he saw beautiful buildings and stone monuments. He remembered that this market was called “the place of the thousand monuments.” The walls were painted bright blue, yellow and red. Behind the walls were the fat ploms, or merchants, who waited to begin the day’s trading. The temples gleamed high above him.

His father had told him that trade is lifeblood to the Maya. He had explained that because the Maya only had to work a small part of the year to harvest their corn, and then have more than was needed, there was leisure time to learn a skill. Every family had their own specialty: products made by hand to trade with at the market.

He hugged his basket of feather headdresses tighter to his chest. This was his family’s craft—bright, beautiful headdresses to exchange for what they needed. There was plenty of everything here at the yaab. Jade workers carved the sacred stone for jewelry and decoration. There were woodcarvers. Salt gatherers, who collected the pure white seasoning from the sea when the tide had receded, had brought sacks for trading.

Food was in another section. Just to see it all made Diego’s mouth water. Hot little red peppers, sweet potatoes, tomatoes, squash, and many kinds of beans. Corn was there, and macal, and fruits, too. Nearby were the spice traders, who had brought vanilla, pepper and chaya.

If a Maya needed cloth, it too was here at the market. Women sat underneath the awnings, with beautifully woven cloth of every color. There were jewelers as well, who were highly respected men. They traded the popular jade and topaz, a small yellow stone. There were also jewels from sea shells, obsidian, turquoise, and even pearls. Diego knew you must have many cacao beans to afford such luxuries.

Diego smiled happily to himself. He was glad that after paying their taxes of cotton cloth and feather headdresses, his family still had plenty left over with which to trade. He would not have wanted to miss out on this day!
The Great Speaker was the most important person in Aztec society and slaves were the least important.

Fill in the spaces in the pyramid with drawings of characters from different levels in Aztec society.
Como leer un códice

En los códices, los dibujos representan ideas. Aquí encontrarás algunos de esos dibujos y debajo de cada uno, lo que quieren decir, escrito primero en lengua náhuatl y después en español.

Así podrás entender un poco más qué significa cada cosa de las que ves dibujadas.

- **Cipactli**: cocodrilo
- **Ehécatl**: viento
- **Calli**: casa
- **Cuetzpallin**: lagartija
- **Cóatl**: serpiente
- **Miquiztlí**: muerte
- **Máztatl**: venado
- **Tochtli**: conejo
Page 13a of the *Dresden Codex*, one of three remaining Maya books. The gods of death, maize and the north (left to right), each holding the symbol for maize, are identified in the inscriptions above. Maya books were made to fold like a screen, as shown in the small picture.
Procession to Sacred Cenote (from *El Encuentro*)
Cortés attacks Tenochtitlán (from El Encuentro)
Daily Life in Palenque (from *El Encuentro*)

Name: __________________
The Mighty Mesos Unit Project Ideas
(based on Howard Gardner’s Multiple Intelligences & Bloom’s Taxonomy)

Choose one of the Ancient Mexican groups we have been studying (Aztecs or Mayas) to research. Create an individualized project on some aspect of their contributions to culture & civilization. What part of our unit made you curious about learning more about these amazing peoples? Here are some ideas to get you started. Your research starts here:

http://teacherweb.com/WQ/MiddleSchool/AncientMexico/apt7.aspx

• ALL projects need to demonstrate additional research outside of class so that when you make your presentation, you are teaching us new information that we have not already learned.

• You may select a project idea from the list below or propose one of your own – just make sure to run your idea by me first.
  
  • Use PowerPoint to create a multi-media slide presentation of information on a theme related to our unit (Minimum: 10 cards for presentation, “bookended” with 2 additional cards: the Title Card at beginning & Bibliography Card at end.)

  • Create a museum display featuring objects (either found or made) that represent themes from our unit in a shoe (or boot) box. Be sure to neatly write a title of each item and brief description of each item on an index card. (Minimum: 8 cards for 8 objects.)

  • Create an architectural dig of remains that were found at either a cenote or an ancient Aztec or Mayan village as an explorer to the region.
• Write a script for Reader’s Theatre including facts about the topic you’re interested in, such as a myth or daily life in the markets, and then assign parts to classmates to read in class.

• Create a diorama of a scene of daily life from Ek Balam, Chichén Itzá, or Tenotchtitlán.

• **Recreate a page from the Mayan Codex**, using the writing symbols we have learned about in class. In your presentation, translate for the class what the symbols mean.

• Write the *script for a talk show interview* with an ancient Mayan or Aztec who has time-traveled to the present to tell us about his or her daily life, job, class in society, responsibilities, meals, etc.

• **Create a colorful children’s story book (even a pop-up book)** of *una leyenda* from the Aztecs or Maya that you have learned about in our unit and illustrate it. For example, one sentence per page with pictures.

• **Write and perform a skit** on one of the Aztec or Maya legends or e-x-t-e-n-d the story by writing a new ending, especially if you did not like the way it ended. You might even videotape it and show it to the class as a short iMovie.

• **Create a detailed 3-D map of the areas where the 2 groups lived in the Western Hemisphere.** Remember to include the time periods in which they lived, since there will be some overlap.

• **Invent a board game** based on what you have learned about the Aztecs or Maya. Write the rules so that classmates can play it in class. (Test it out with family or friends first to make sure your game works!)

• **Write & compose a song** based on a theme from our unit and perform it in class.

• **Compare & contrast** the two native groups and present it on a poster for the class in a pie chart or graph either by hand or by a computer program, such as Excel.

• **Create a scrapbook** that documents an imaginary trip to Ek Balam, Palenque, Chichén Itzá, or Tenotchtitlán from our unit with explanations for each entry or page. (Minimum: 8 pages.)

• **Make a story map or timeline** depicting the main historical events of one of the cultures, using the MacTimeliner program in the Computer.
Lab or Library or by hand. Include pictures and details, for each entry. (Minimum: 10 events, each with pictures.)

- **Burn a CD of various types of music** which appropriately represent different characters (gods or goddesses), historical events, scenes, or legends. Include a song list with artist names and an illustrated cover. Most importantly, for each song explain the significance of your selections by writing why you chose these songs in 2–3 sentences for each one. (Minimum: 8 songs and descriptions.)

- **Draw a storyboard/cartoon** illustrating one of the Aztec or Mayan legends. Use full-sentence captions, at least one per page. (Minimum: 8 cartoon blocks on 1 page of 8 ½” x 11” paper.)

- **Develop a 3-D model** of one of the ancient sites we have studied, such as the Temple of Kulkulkan at Chichén Itzá or even a Sacred Cenote or Chinampas. Be sure to include a paragraph (minimum: 8 sentences) about this important historical place and interesting facts about it.

- **Create a picture collage** of one of these regions of Mexico and the continuing influence of the Aztecs or Maya in present day Mexico and attach a typed paragraph description (minimum: 10 sentences) about why you included certain images.

- **Write poetry in Spanish** (a simple Haiku or Cinquain) that describes a place, setting, or one of the gods of the Aztecs or Maya, etc. Illustrate it.

- Select challenging vocabulary from the unit. Find the definitions of at least 10 words and create a word puzzle game such as a crucigrama or sopa de letras at www.puzzlemaker.com or discoverieschool.com. Make both the worksheet AND answer key. Give it out to classmates (and me!), grade it, and return it to us. 😊

- **Create puppets & put on a puppet show** about one of the ancient Aztec or Mayan rituals so that we can learn why it was important to them.

- Do a “You Are There” newscast on Aztec or Mayan TV of an important event in their history as if it were happening in the present, such as when the Spaniards first invaded and conquered. Research the event to include REAL details of what happened. Include images or guests if possible.
• Along the same lines, create a “Today Show” segment on Aztec or Mayan daily life, such as cooking, weaving, astronomy, education, trade, etc.

• Do you have another creative idea that is not listed here? I’d love to hear it! Let’s discuss it so that we can make it work!
The Mighty Mesos Final Project Proposal

Project Information:

Student Name: __________________________

Topic Chosen for Final Project: __________________________

Project Chosen: __________________________

Due Date: __________________________

Project Plan:
To complete this assignment by the due date, I propose to do the following three steps:

1.)

2.)

3.)

Student Signature: __________________________

Teacher Approval of Project: √ or X

[ ] approved

[ ] rejected – please speak with me, then adjust this project plan and re-submit

Reason:
Rubric: Mighty Mesos Unit Project

**Goal:** To show and communicate understanding of the Ancient Mexican cultures studied and their contributions to society.

<table>
<thead>
<tr>
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<td><strong>Inclusion &amp; Accuracy of New Information</strong></td>
<td>Project shows evidence of outstanding research &amp; contains all new information that is accurate &amp; thorough; excellent use of resources. Terrific! ©</td>
<td>Good work! Most information is new &amp; accurate, though some facts could have been more detailed or stretched; good use of resources.</td>
<td>Research is evident, yet there is either missing, inaccurate, or previously learned facts in final project; average use of resources.</td>
<td>Project lacks new facts. Includes general topic information but nothing new. Facts in presentation were learned in class. Use of resources not evident. ©</td>
</tr>
<tr>
<td><strong>Creativity</strong></td>
<td>Extremely creative; excellent use of materials to execute final project; exceeds expectations.</td>
<td>Project is creative; demonstrates good use of materials to complete final project.</td>
<td>Creative idea, but not stretched or developed as far as possible. Average use of materials.</td>
<td>Very little time spent developing topic or making project creative or appealing; weak use of materials to complete final project.</td>
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<td>Excellent effort with care and attention to details. Hard work and time spent on project is evident.</td>
<td>Good effort evident. Project shows care and time spent.</td>
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**Total score:** ________/12 points = ______%
Appendix B: Teacher Resources

Mighty Mesos Unit Quiz
Deciphering Maya Numbers Answer Sheet
Maya Math Answer Sheet: Addition and Subtraction
Aztec Pyramid Chart Key
Rubric: Mighty Mesos Unit Project
Replace underline words to make the sentence true:

1. The Mayas played a game, similar to basketball or soccer, called Hide & Seek.

2. The Aztecs, or Mexicas, primarily settled along the coast of Mexico.

3. As a tasty treat for special occasions, the Maya would drink water.

4. The Aztecs built their city on an island and called it Chalulu.

5. The Maya held sacrificial ceremonies in their backyards.

Circle the correct answer:

6. The Spanish conquistador who conquered the Aztecs was:
   a. Cortés
   b. Pizarro
   c. Moctezuma

7. The Maya did NOT develop which of the following:
   a. interlocking calendar
   b. writing and number systems
   c. scientific tools

8. Which word best describes the Aztecs?
   a. scientists
   b. writers
   c. warriors

9. Where did the Maya live?
   a. Mexico’s Yucatán Peninsula
   b. Andes Mountains
   c. Rocky Mountains
DECIPHERING MAYA NUMBERS
ANSWER SHEET

You are an archeologist who has discovered a tablet which translates Maya numbers into Arabic numbers. Unfortunately, parts of the tablet are broken and cannot be read. Using the translated numbers, decipher the rest of the numerals.

TRANSLATED NUMERALS:

\[
\begin{align*}
\text{○ ○} & = 2 & \text{-----} & = 8 & \text{-----} & = 13 & \text{--} & = 20 & \text{-----} & = 33
\end{align*}
\]

Using the key above, translate the following Maya numbers into Arabic numerals:

\[
\begin{align*}
a) \quad \text{-----} & = 3 & b) \quad \text{-----} & = 5 & c) \quad \text{-----} & = 12 \\
\text{-----} & = 0 & e) \quad \text{-----} & = 9 & f) \quad \text{-} & = 1 \\
g) \quad \text{-----} & = 11 & h) \quad \text{-----} & = 15 & i) \quad \text{-----} & = 4 \\
\text{-----} & = 7 & k) \quad \text{-----} & = 10 & l) \quad \text{-----} & = 19 \\
m) \quad \text{-----} & = 40 & n) \quad \text{-} & = 27 & o) \quad \text{-----} & = 134
\end{align*}
\]
MAYA MATH ANSWER SHEET

ADDITION AND SUBTRACTION

Solve the following equations and write the answers in both Maya and Arabic. Remember that decimal places move up vertically. Numbers at the bottom represent units of one, while those in the second decimal place represent units of 20.

a) • • + 三是 = 三 (15)  h)  — + 三是 = 三 (5)

b) 二 - 四 = 四 (3)  i) 三 - 二 = • (39)

c) 三 + 四 = 五 (19)  j) 三 - 二 = • (7)

d) 四 - 二 = 二 (7)  k) 三 - 五 = 二 (1)

e) 四 + 二 = 二 (20)  l) 三 + 二 = 三 (67)

f) 三 - 四 = 四 (3)  m) 三 - 五 = 三 (77)

g) 二 + 三是 = 二 (21)  n) 三 - 二 = 三 (98)
The Great Speaker was the most important person in Aztec society and slaves were the least important.

Fill in the spaces in the pyramid with drawings of characters from different levels in Aztec society.

---

copyright ©2001 ~ the learning connection ~
Rubric: Mighty Mesos Unit Project

**Goal:** To show and communicate understanding of the Ancient Mexican cultures studied and their contributions to society.

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