

Ho'okahi Ao, Ho'okahi 'Ohana Un Mundo, Una Familia One World, One Family



(Princess Taiping Sails with the Hokule'a by HongKongHuey, from <http://www.flickr.com/photos/46437992@N05/4267626397> , available under Creative Commons Attribution 2.0 Generic license.)

**Hawai'i and Mexico:
A comparative study of pre-contact and modern day
culture and society**

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Fulbright-Hays Seminars Abroad Program 2012

Enduring Understandings:	People from other countries and cultures may appear to be greatly different from ourselves but delving deeper into another culture may reveal more similarities than differences. Despite superficial differences, we are one world and one family. We are one 'ohana.
Ultimate Transfer as Result of this Unit:	When faced with a new people and culture, use critical thinking skills to recognize the similarities and differences between us.
Subject Area:	Social Studies, Language Arts, Science
Grade Level(s):	4–5
Topics:	Geography (landforms, natural disasters), myths (creation myths, oral tradition), astronomy (indigenous use of objects in the sky), plants (indigenous use of coconut palm, maguey and connection to modern day environmental conservation), cultural customs ('ohana, guelaguetza)
Summary:	The goal of the unit is for students to draw parallels between the pre-contact cultures of Hawai'i and Mexico as well as modern day geography and customs. Each lesson begins with students reading an article about the topic. This is followed by students analyzing the text to find the similarities and differences between Hawai'i and Mexico. Students will then summarize the similarities and differences in writing. This provides a scaffold for the culminating comparative essay.
Key Understanding:	Students will understand the similarities and differences between pre-contact Hawai'i and Mexico as well as modern day geography and cultural practices.
Essential Questions:	(1) How are Hawai'i and Mexico the same and different? (2) How are the people and culture of Hawai'i and Mexico the same and different? (3) How does Ho'okahi Ao, Ho'okahi 'Ohana/ Un Mundo, Una Familia/One World, One Family relate to me, my life and how I interact with the world?
Unit Time Frame:	Seven lessons
Prior Knowledge:	This unit focuses on the compare and contrast text structure. Students should have a solid grasp of compare and contrast as well as how to use a basic graphic organizer such as a Venn diagram. For further information, see Prior Knowledge lesson plan ideas following this summary.

Materials Note: This unit is written for a classroom with an Elmo projector (or other camera device). However, the lessons can be modified for classrooms without this technology. For example, instead of using an online KWL chart creator, the teacher may use chart paper instead.

Organizational Note: It is suggested that students keep their work in a portfolio (e.g., loose leaf binder with tabbed dividers). This helps keep student work organized for both the teacher and the student.

If this is not feasible, another suggestion is to keep student work in a filing crate or box. Each student has their own hanging folder. Each lesson will have its own file folder within the hanging folder. After each activity, students may file their work in the filing crate or box.

Definition Note: Throughout the text, the terms “ancient Hawaiians” and “ancient Mexicans” are used. These terms refer to the pre-contact people of Hawai’i and pre-contact people of Mexico.

Lesson Sequence Note: All lessons conclude with students reflecting on the lesson. This reflection should be included in the students’ portfolio.

This unit can incorporate science, social studies and language arts. See below for suggested subject integration for the unit.

Lesson	Social Studies	Science	Language Arts
1	Geography		
2	Formation of the Hawaiian Islands, arrival and adaptation of plants and animals	Landforms, fast and slow processes that change the Earth’s surface	Reading, Writing
3	Myths		Reading, Writing
4	Use of Objects in the Sky	Earth’s rotation and revolution, solar system, gravity (shapes planets)	Reading, Writing
5	Using Nature to Meet Your Needs	Environmental conservation	Reading, Writing, Oral Communication
6	Cultural Customs: ‘Ohana and Guelaguetza, Ahupua’a	Food chain	Reading, Writing
7			Writing, Oral Communication

Assessment Note:	<p>The assessments do not include student participation rubrics. The unit assumes each teacher has their own method and form(s) for assessing student participation.</p> <p>The compare and contrast rubric is taken from readwritethink.org at: http://www.readwritethink.org/files/resources/lesson_images/lesson275/compare_rubric.pdf</p>
Differentiation Note:	<p>Teachers may differentiate the lessons, providing more or less of a scaffold. For example, instead of providing students with a matrix with categories, teachers may provide students with a blank matrix. On the other hand, for students needing more support, a teacher may provide a partially completed matrix.</p>
Extension note:	<p>The accompanying texts may be used to teach context clues as well as text features.</p>

Unit Summary:

1. Anticipatory Set/Introduction: Where is Mexico? Where is Hawai'i?
2. Modern Day Geography and Natural Disasters: What does Hawai'i look like? What does Mexico look like?
3. Pre-Contact Myths—Myths of Creation: What are the stories of Hawai'i and Mexico?
4. Pre-Contact Astronomy/Astrology—Use of Objects in the Sky: Look to the Sky!
5. Pre-Contact Natural Resources—Coconut Palm and Maguey: How did the ancient Hawaiians and ancient Mexicans use the land to help them survive?
6. Modern Day Cultural Customs—'Ohana and Gueleguetza: How do different groups of people live peacefully and growing stronger as a people?
7. Culminating Project: Comparative Essay and Group Presentation

Lesson	Standard	Objectives	Guiding Questions
Lesson 1: Anticipatory Set/Introduction	SS.4.7.1 Identify the major geographic characteristics and demographics of the pre-contact Hawaiian archipelago, including its relative location to other major land masses.	Students will: <ul style="list-style-type: none"> • identify a border. • locate Hawai'i and Mexico on a map. • create a KWL chart. • complete a Venn diagram outlining differences between Hawai'i and Mexico. • draw on their prior knowledge by answering the question "If you met someone from Mexico, do you think you would be more alike than different?" 	What are borders? Where is Hawai'i? Where is Mexico? How are Hawai'i and Mexico alike? How are Mexico and Hawai'i different?
Lesson 2: Modern Day Geography and Natural Disasters: What does Hawai'i look like? What does Mexico look like?	LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information. LA.4.2.5 Summarize main points found in informational texts. LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.	Students will: <ul style="list-style-type: none"> • learn about different landforms and land features. • complete a picture sort. • read and identify similarities and differences in landforms, land features and natural disasters. • write an essay comparing and contrasting the land and natural disasters of Hawai'i and Mexico. 	What are the landforms and land features of Hawai'i? What are the landforms and land features of Mexico? How are the landforms and land features of Hawai'i and Mexico the same? How are the landforms and land features of Hawai'i and Mexico different? How have natural disasters affected Hawai'i? How have natural

			<p>disasters affected Mexico?</p> <p>How are the natural disasters of Hawai'i and Mexico the same?</p> <p>How are the natural disasters of Hawai'i and Mexico different?</p>
<p>Lesson 3: Myths: What are the stories of Hawai'i and Mexico?</p>	<p>SS.4.3.10 Describe how significant people, including those of legend (including Papa and Wakea, Pele, and Pa'ao) affected pre-contact Hawaii.</p> <p>SS.4.6.1 Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values, and behaviors are elements of culture and contribute to the preservation of culture.</p> <p>LA.4.3.1 Explain the problem or conflict in a story and how it is resolved.</p> <p>LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.</p>	<p>Students will:</p> <ul style="list-style-type: none"> • view a cartoon myth. • read a Hawaiian and Aztec creation myth. • find similarities and differences in the myths. • write a compare and contrast essay about the two myths. • write and illustrate their own myth. 	<p>What is the purpose of a myth?</p> <p>How are the Hawaiian and Aztec creation myths the same?</p> <p>How are the Hawaiian and Aztec creation myths different?</p>
<p>Lesson 4: Use of objects in the sky: Look to the sky!</p>	<p>SS.4.3.4 Describe the theories of early migrations from parts of Polynesia to Hawaii, including migration myths and legends.</p> <p>SS.4.3.5 Identify reasons that early explorers, settlers, and immigrants came to Hawaii (including the influence of Pa'ao) or the Polynesian region and describe what their lives and experiences were like.</p> <p>SS.4.6.1 Explain how language, traditional</p>	<p>Students will:</p> <ul style="list-style-type: none"> • read about Polynesian celestial navigation. • make their own Hawaiian star compass. • read about Mayan astronomy/ astrology. • find similarities and differences in Polynesian and Mayan use of objects in the sky. • write a compare and contrast essay about Polynesian and 	<p>How did the Polynesians use the objects in the sky?</p> <p>How did the Mayans use the objects in the sky?</p> <p>How is the Polynesian use of the objects in the sky the same as the Mayans?</p> <p>How is the Polynesian use of the objects in the sky different than the Mayans?</p>

	<p>lore, music, dance, artifacts, traditional practices, beliefs, values, and behaviors are elements of culture and contribute to the preservation of culture</p> <p>LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information.</p> <p>LA.4.2.5 Summarize main points found in informational texts.</p> <p>LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.</p>	<p>Mayan use of objects in the sky.</p> <ul style="list-style-type: none"> • locate the North Star. • follow the maiden voyage of the Hikiliana from Tahiti to Hawai'i. 	
<p>Lesson 5: Natural Resources—Coconut Palm Tree and Maguey: How did the ancient Hawaiians and ancient Mexicans use the land to help them survive?</p>	<p>SS.4.3.1 Explain the origins and culture of early Hawaiians.</p> <p>LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information.</p> <p>LA.4.2.5 Summarize main points found in informational texts.</p> <p>LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.</p> <p>LA.4.6.1 Participate in grade-appropriate oral group activities</p> <p>LA.4.6.2 Give short, informal presentations to inform or persuade</p>	<p>Students will:</p> <ul style="list-style-type: none"> • read about ancient Hawaiian use of the coconut palm tree and pre-contact Mexicans use of the maguey plant. • find similarities and differences in uses of coconut palm and maguey. • write a compare and contrast essay about the Hawaiians use of the coconut palm and ancient Mexican use of maguey. • find uses for a rubber band. 	<p>How did the ancient Hawaiians use the coconut tree?</p> <p>How did the ancient Mexicans use maguey?</p> <p>How is the ancient Hawaiians' use of the coconut tree and ancient Mexicans' use of maguey the same?</p> <p>How is the ancient Hawaiians' use of the coconut tree and ancient Mexicans' use of maguey different?</p> <p>How did ancient people meet their needs?</p> <p>How can you apply this lesson to your life?</p>
<p>Lesson 6: Customs—'Ohana and Guelaguetza: How do different groups of people live peacefully and grow stronger as a people?</p>	<p>SS.4.3.1 Explain the origins and culture of early Hawaiians.</p> <p>SS.4.6.1 Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values, and behaviors</p>	<p>Students will:</p> <ul style="list-style-type: none"> • read about the concept of 'ohana and guelaguetza. • identify the similarities and differences between 'ohana and 	<p>What is 'ohana?</p> <p>What is guelaguetza?</p> <p>How are 'ohana and guelaguetza the same?</p> <p>How are 'ohana and guelaguetza different?</p> <p>How can you practice 'ohana in your life?</p>

	<p>are elements of culture and contribute to the preservation of culture.</p> <p>SS.4.6.2 Describe how individuals or groups deal with conflict, cooperation, and interdependence within the ahupua'a.</p> <p>LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information.</p> <p>LA.4.2.5 Summarize main points found in informational texts.</p> <p>LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.</p>	<p>guelaguetza.</p> <ul style="list-style-type: none"> • write a compare and contrast essay about 'ohana and guelaguetza. • engage in an experiential activity simulating ahupua'a and sharing of resources. 	
Lesson 7: Culminating Activity, Reflection, Lesson Wrap Up	<p>LA.4.2.5 Summarize main points found in informational texts.</p> <p>LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.</p> <p>LA.4.6.1 Participate in grade-appropriate oral group activities</p> <p>LA.4.6.2 Give short, informal presentations to inform or persuade</p>	<p>Students will:</p> <ul style="list-style-type: none"> • write a comparative essay about Hawai'i and Mexico using the graphic organizers and essays from the previous lesson. • present the information learned with another class. • reflect in their learning log about what they've learned in the unit. 	<p>How are Hawai'i and Mexico alike?</p> <p>How are Hawai'i and Mexico different?</p>

Prior Knowledge Required for Curriculum Unit

Students must have an understanding of compare and contrast in order to successfully complete this curriculum unit. The unit utilizes different graphic organizers such as a T-chart and matrix. Students should also be familiar with compare and contrast signal words as well as how to write a simple compare and contrast paragraph.

Below are suggested mini-lessons to be taught prior to the curriculum unit.

Suggested T-Chart/writing mini-lesson: Show students pictures of two objects to compare and contrast (e.g., palm tree and plumeria tree). To use a T-chart, students write everything they notice about one object on one side and the other object on the other side. Then students match the similarities and differences. One suggestion is to draw green ovals around the similarities and draw a line to connect them. Students can draw red rectangles around the differences and draw a line to connect them. (See attached sample T-chart.)

Then model how to write a simple compare and contrast paragraph using signal words. Below is a list of compare and contrast signal words.

Signal Words for Compare and Contrast (*as taken from Pacific CHILD lesson demonstration – November 2008, Sharon M. Look, demonstrator*)

Compare

same as
both
alike
similar to
compared to
just like
as well as

Contrast

different from
not only....but also
on the other hand
instead of
in contrast to
however
either...or
although
yet
most
opposite
opposed to
some
while
unlike

Students may also benefit from a paragraph frame. This also models the A/B writing pattern where the first paragraph discusses similarities and the second paragraph details differences.

Both _____ and _____ are _____. _____ is a
_____ **just like** _____. _____ and _____ are **alike**
_____.

However, _____ **while** _____. _____ **is different than** _____. **On the other hand,** _____. **Although** _____

_____.
(as taken from Pacific CHILD lesson demonstration – November 2008, Sharon M. Look, demonstrator)

Suggested mini-lesson for matrix: Teacher uses the same pictures and creates a matrix with the attributes of each object. Students use the same process (ovals, rectangles) to match similarities and differences. (See attached sample matrix.)

It may be helpful for students to have a completed model. Please see Writing Compare and Contrast Reference Sheet (see Lesson 1) as a sample.

Suggested Organization of Material: To keep these materials organized and easily accessible for students, consider creating a reading and writing resource book. These graphic organizer examples and sample paragraphs can be put into a composition book that students can refer to when needed. This could be titled “Reading and Writing Resource.”

References

Pacific Communities with High-performance In Literacy Development (Pacific CHILD). Pacific CHILD is a program implemented by the Regional Educational Laboratory Pacific (REL Pacific) as a part of a randomized control study in the Pacific Region. Pacific CHILD is a principles-based professional development program consisting of research-based teaching and learning strategies proven to help improve students’ reading comprehension using informational text.

Padua, J.F.M. (2011) *Text Structure: Cause and Effect*. Honolulu, HI: Pacific Resources for Education and Learning.

Padua, J.F.M. (2011) *Growing Professionally*. Honolulu, HI: Pacific Resources for Education and Learning.

Sample T- Chart Comparing Palm Tree and Plumeria Tree

Palm Tree	Plumeria Tree
tall	flowers are pink
skinny	short
leaves	leaves
roots	fat
trunk	in a yard
no flowers	lots of branches
on the beach	thick
slanted	round
crown is green	trunk
long leaves	long leaves
leaves on top only	leaves all over tree

Sample Matrix Comparing Palm Tree and Plumeria Tree

Characteristic/Attribute	Palm Tree	Plumeria Tree
Trunk	<ul style="list-style-type: none">• Has a trunk	<ul style="list-style-type: none">• Has a trunk
Location	<ul style="list-style-type: none">• Beach	<ul style="list-style-type: none">• Yard
Leaves	<ul style="list-style-type: none">• long leaves• leaves on top	<ul style="list-style-type: none">• long leaves• leaves all over
Flowers	<ul style="list-style-type: none">• no flowers	<ul style="list-style-type: none">• pink flowers
Height	<ul style="list-style-type: none">• tall	<ul style="list-style-type: none">• short
Appearance/Size	<ul style="list-style-type: none">• skinny	<ul style="list-style-type: none">• fat

Sample Matrix Comparing Palm Tree and Plumeria Tree

Characteristic/Attribute	Palm Tree	Plumeria Tree
Trunk	<ul style="list-style-type: none"> • Has a trunk 	<ul style="list-style-type: none"> • Has a trunk
Location	<ul style="list-style-type: none"> • Beach 	<ul style="list-style-type: none"> • Yard
Leaves	<ul style="list-style-type: none"> • long leaves • leaves on top 	<ul style="list-style-type: none"> • long leaves • leaves all over
Flowers	<ul style="list-style-type: none"> • no flowers 	<ul style="list-style-type: none"> • pink flowers
Height	<ul style="list-style-type: none"> • tall 	<ul style="list-style-type: none"> • short
Appearance/Size	<ul style="list-style-type: none"> • skinny 	<ul style="list-style-type: none"> • fat

Lesson 1

Anticipatory Set/Building Background Where is Hawai'i? Where is Mexico?

Subject/Topic:
Social Studies

Objective(s):

Students will:

- locate Hawai'i and Mexico on a map.
- identify border between the U.S. and Mexico.
- complete a Venn diagram outlining similarities and differences between Hawai'i and Mexico.
- draw on their prior knowledge by answering the question "If you met someone from Mexico, do you think you would be more alike than different?"
- create a KWL chart.

Guiding Questions:

- Where is Hawai'i?
- Where is Mexico?
- What are borders?
- How are Hawai'i and Mexico alike?
- How are Mexico and Hawai'i different?

Content Standards:

Social Studies

Standard 7: Geography: WORLD IN SPATIAL TERMS: Use geographic representations to organize, analyze, and present information on people, places, and environments and understand the nature and interaction of geographic regions and societies around the world.

SS.4.7.1 Identify the major geographic characteristics and demographics of the pre-contact Hawaiian archipelago, including its relative location to other major land masses.

Brief Summary of Lesson:

Students locate Hawai'i and Mexico and find a border on a world map. Students activate background knowledge by creating a Venn diagram outlining their understanding of the similarities and differences between Hawai'i and Mexico and answering the question "If you met someone from Mexico, do you think you would be more alike than different?" Class will create a KWL chart.

Materials:

- Boarding Passes (<http://www.earlylearninghq.org.uk/themes/vehicles/editable-airline-tickets/>)
- Alternate to Boarding Pass – Passport (https://www.donnaward.net/news.php?cat_id=6&article_id=77)

- Individual student blank map (x2), teacher blank map (<http://www.worldatlas.com/aatlas/wrldnanb.htm>)
- Venn diagram (<http://www.studenthandouts.com/3batch/venn2.pdf>)
- Electronic KWL chart creator (<http://www.readwritethink.org/classroom-resources/student-interactives/creator-30846.html>)
- Large world map (ideally a wall map)
- Rubric (attached)

Lesson Sequence:

1. Teacher opens with handing out boarding passes to students and informs students that they (including the teacher) will be going on a trip to Hawai'i and Mexico. Students may fill in their own names on boarding passes. (Alternatively may use passport instead.)
2. Teacher shares with students that many people prepare for a trip by learning more about the place they are going to visit and they are going to do the same. Teacher asks students to find Hawai'i and Mexico on the world map. (Students may color in countries.)
3. Students self-correct map as teacher provides clues to find each location. Teacher may say:

Where is Hawai'i?
It is a group of islands south and west of California.

Where is Mexico?
It is in the northern hemisphere.
It is contiguous with the United States.
It is south of Texas.

After giving clues, teacher points out location on world map.
4. If needed, students are given second world map. The purpose is for students to have correct location of both Hawai'i and Mexico.
5. Teacher explains that borders define each distinct country or state. Teacher gives definition to students: Border – line between two countries or states (modified from <http://www.wordsmysn.net/?level=2&ent=border>). Teacher points out border on world map and asks students to color the border between the U.S. and Mexico. (If students have their own dictionary, this could be added to their dictionary also.)
6. Teacher asks students what they already know about each location. Students individually complete Venn diagram finding similarities and differences between Hawai'i and Mexico. Students share with class. Teacher may record answers on large Venn diagram (on chart paper) and display in classroom during unit.
7. Students respond to question “If you met someone from Mexico, do you think you would be more alike than different?” Students write their answer and when finished share answers with class. Teacher keeps a tally of students that believe they are more alike and more different. This will be revisited at the end of the unit.

8. Teacher begins KWL discussion by asking students to summarize what they know about Hawai'i. Teacher fills out electronic KWL creator as students contribute to class discussion. Teacher continues discussion about Hawai'i and follows with creating a KWL chart for Mexico. At later time, teacher will print for each student to place in their portfolio.
9. Teacher closes lesson by building excitement for the class journey to both Hawai'i and Mexico. Teacher focuses on topics raised in the "What we want to learn..." column of the KWL chart.
10. Students reflect by responding to the question "Today I learned..."
11. Material Collection: Students place their boarding passes (suggestion: place in sheet protector), map, Venn diagram, response to question, KWL chart, and reflection in portfolio.

Assessment:

Assessment based on correctly identifying location of Hawai'i, Mexico and border between U.S. and Mexico at end of lesson.

**Assessment for Lesson 1: Anticipatory Set/Building Background, Where is Hawai'i?
Where is Mexico?**

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
N/A	Correctly identifies location of Hawai'i, Mexico, and border between U.S. and Mexico.	Correctly identifies two of the following three items – location of Hawai'i, Mexico, and border between U.S. and Mexico.	Correctly identifies one or none of the following three items – location of Hawai'i, Mexico, and border between U.S. and Mexico.

*Assessment based on student map after showing world map to students.

Lesson 2

Modern Day Geography and Natural Disasters of Hawai'i and Mexico What does Hawai'i look like? What does Mexico look like?

Subject/Topic:
Language Arts

Objective(s):

Students will:

- learn about different landforms and land features.
- complete a picture sort.
- read about and identify similarities and differences in landforms, land features and natural disasters.
- write an essay comparing and contrasting the land and natural disasters of Hawai'i and Mexico.

Guiding Questions:

- What are the landforms and land features of Hawai'i?
- What are the landforms and land features of Mexico?
- How are the landforms and land features of Hawai'i and Mexico the same?
- How are the landforms and land features of Hawai'i and Mexico different?
- How have natural disasters affected Hawai'i?
- How have natural disasters affected Mexico?
- How are the natural disasters of Hawai'i and Mexico the same?
- How are the natural disasters of Hawai'i and Mexico different?

Content Standards:

Language Arts

Standard 2: Reading: READING COMPREHENSION: Use reading strategies to construct meaning from a variety of texts.

LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information.

LA.4.2.5 Summarize main points found in informational texts.

Standard 4: Writing: CONVENTIONS AND SKILLS: Use the writing process and conventions of language and research to construct meaning and communicate effectively for a variety of purposes and audiences using a range of forms.

LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.

Brief Summary of Lesson:

Students will explore Hawai'i and Mexico's geography by learning about different landforms and features. Students will then complete a picture sort of these different landforms and land features and reflect on the activity. Next students will read more about Hawai'i and Mexico including recent natural disasters, find similarities and differences, and complete a graphic

organizer. Afterwards, students will write a compare and contrast paragraph using an A/B pattern (i.e. first paragraph discusses similarities, second paragraph discusses differences). Finally, students will reflect on the lesson.

Materials:

Drawing paper

Large pieces of butcher paper for picture sort

Pictures for picture sort/PPT “answer” key for picture sort (available for download from this website)

Directions for picture sort (attached)

Group assessment (pg. 23, http://www.prel.org/media/176012/interactive_eis.pdf)

Hawai’i and Mexico text (attached)

Hawai’i and Mexico compare and contrast matrix - differentiated (attached)

Hawai’i and Mexico compare and contrast matrix – answer key (attached)

Writing compare and contrast reference sheet

Rubric (attached)

Prior Knowledge Required:

1. Students should have an understanding of different landforms and land features. For example, students should know about landforms, mountains, valleys, canyons, rivers, islands, dunes, deltas, and volcanoes.

The following definitions are from Harcourt Science and could be used to teach this lesson. (Bell, M.J. et.al. (2006) *Science*. Orlando, FL: Harcourt School Publishers).

Landform – a natural feature on Earth’s surface

Mountain – an area that is higher than the land around it

Valley – an area with higher land around it

Canyon – valley with steep walls

Island – a body of land surrounded by water

Volcano – a mountain that forms as lava flows through a crack onto Earth’s surface

The following definitions are from www.wordsmyth.net and could be used to teach this lesson.

Delta – a triangle of sand and soil deposited at the mouth of some large rivers

Dune – a mound or hill of sand built up by wind (modified definition)

River – a large natural stream of water flowing in a particular course toward a lake, ocean, or other body of water

2. Also, if students have an understanding of Earth’s fast processes (e.g., earthquakes), the lesson can be extended and a richer discussion could result. For example, when reading about Hawai’i and Mexico’s natural disasters, the class could discuss cause and effect as well as other geographical features such as fault lines.

3. It would be helpful for students to understand the mathematical term, median. This is used in the text.

Lesson Sequence:

1. Teacher opens lesson by drawing on previous lesson by asking students what the land might look like in Hawai'i and Mexico. Teacher guides students to think in terms of landforms and land features. Students draw their answer. Suggestion: Students fold a piece of paper in half and draw their answers for Hawai'i on one half and Mexico on the other half.
2. Teacher reviews the different landforms and land features. Students complete picture sort in group activity. Teacher and students view PPT presentation to gauge performance. (Note the PPT presentation places the landforms or land features into one category only. Many pictures fit into different categories. The teacher will have to use their own knowledge to assess each group's performance visually.) Students self-assess their performance in the group as well as the group's performance as a whole.
3. Teacher leads reflection discussion "What did you notice about Hawai'i and Mexico?" guiding students toward recognizing the similarities and differences in landforms. Teacher revisits students' predictions and asks students if they predicted correctly or incorrectly.
4. Students create their own travel brochures for Hawai'i or Mexico. Teacher leads discussion about persuasive writing and models how to write persuasively. Students must write about one landform or land feature found in either location. Students must accurately define the landform or land feature and place the landform or land feature in the correct location. Students may use matrix from picture sort to assist them with this performance task.
5. Teacher informs students they are going to read more about Hawai'i and Mexico's land and people. Teacher leads discussion about text structure (e.g., compare and contrast text structure is when the author tells how things are the same and how they are different). Using the text, teacher models (thinks aloud) how to recognize text structure. Teacher leads discussion about graphic organizers and how they help organize information for a reader. Teacher models how to fill out graphic organizer. Note: teacher does not model how to match to find the similarities and differences.
6. Students read the text. Teacher and students discuss text. Students complete the graphic organizer. (Note: matrix is differentiated. The first matrix is for the below level students, the second matrix is for the on level students, and the last matrix is for the above level students.) Teacher and students review the compare and contrast matrix. Students self-correct the matrix using a red pen. (The purpose of using a different color is so teacher can assess student performance at end of lesson.) Teacher models how to match to find similarities and differences. Students find the similarities and differences on their own.
7. Teacher reviews matrix with identified similarities and differences with students. Students self-correct using a different color pen (e.g., blue pencil). Teacher models how to write similarity and difference sentences using signal words. Teacher refers to Writing

Compare and Contrast Reference Sheet and reviews how to write a compare and contrast essay.

8. Teacher explains that to really understand the text a reader takes it apart and puts it back together again. Teacher explains this is what students are going to do now. Students write their own compare and contrast essay.
9. Students reflect about what they learned in this lesson by answering the prompt, “In this lesson I learned...”
10. Material Collection: Students place in landform directions, Hawai’i and Mexico text, Hawai’i and Mexico matrix, compare and contrast paragraph and reflection (after teacher has corrected) into their portfolio.

Assessment:

Teacher assesses students’ ability to accurately identify landforms or land features, define these landforms or land features and accurately place them in the correct location, find similarities and differences in text (matrix) as well as written essay.

Landform Land Feature Sort!

In the activity, you will

- sort the photos into different landform or land feature groups, and
- place the photos into the correct column (Hawai'i or Mexico).

Each person has a role. The duties or job of each person is listed below.

1 - Recorder - writes the name of the landform or land feature.

2 - Facilitator - asks group the type of landform or land feature shown in the picture.

3 - Tape Person - tapes the picture into the correct column.

4 - Picture Person - holds and shows photos to the group. Places photos in correct country or state column.

To begin,

A - The **Recorder** writes the name of each country and state at the top of the colored paper.

B - The **Picture Person** shows the first photo to the group.

C - The **Facilitator** asks the group, "What landform or land feature is this?"

D - Once the group agrees on the type of landform or land feature, the **Facilitator** asks, "Where can you find this landform or land feature?"

E - Once the group agrees on where the landform or land feature is located, the **Picture Person** places the photo in the correct column (Hawai'i or Mexico column).

F - The **Tape Person** tapes the picture down.

G - The **Recorder** writes the name of the landform or land feature.

Your colored paper should look something like this

Mexico	Hawai'i
 mountains	 mountains
 rivers	 rivers

BEWARE!

There are many photos that can fit into different categories!

You **MUST have at least one** photo in each category.

You may have more than one photo in each category too.

Here are the categories. Use this list to help you organize your work. Place a check mark in the box when you've found the photo that matches the category.

Category	Hawai'i	Mexico
Valleys		
Mountains		
Canyons		
Rivers		
Islands		
Dunes		
Deltas		
Volcanoes		
Earthquake Damage		

Hawai'i and Mexico

Hawai'i is a state in the United States of America. Mexico is a country located south of the United States. There are some similarities, or ways they are the same, and some differences between these two places.

Location

Hawai'i is located in the north central Pacific Ocean. While Hawai'i is a part of the United States, it is not a part of the North American continent. Hawai'i is bordered by the Pacific Ocean and has no bordering states or countries.

Mexico is located in North America. It is bordered by three different countries, the United States, Belize (bell-eez), and Guatemala (gwah-tay-mah-lah). Mexico is also bordered by three bodies of water, the Caribbean Sea, Gulf of Mexico and North Pacific Ocean.

Size

Hawai'i's total land area equals 6,422.6 square miles. Mexico's total area equals 761,606 sq miles.



Map of Mexico. (From http://en.wikipedia.org/w/index.php?title=File:Mexico_topographic_map-blank.svg&page=1, available under Creative Commons Attribution-Share Alike 3.0 Unported license)

Number of Islands

Hawai'i is made up of 137 islands. There are eight major islands. These islands are Ni'ihau, Kauai, O'ahu, Moloka'i, Lanai, Maui, Kaho'olawe and Hawai'i. The eight main islands make up about 99% of the state.

Mexico also has many islands. The land area of the islands is about 2,317 sq miles. These islands are located in the Pacific Ocean, Gulf of Mexico, Caribbean Sea and Gulf of California. The islands make up about 0.3% of the country.

Landforms

Mountains

The Hawaiian Islands are an underwater mountain range. In other words, the tops of the underwater mountains are the Hawaiian Islands. This mountain range is called the Hawaiian-Emperor seamount chain and is approximately (about) 1,500 miles (2,400 kilometers) long. The highest mountain in Hawai'i, and the U.S., is the volcano Mauna Kea. Mauna Kea is a shield volcano that is 13,796 ft (4,205 m) above sea level. However, as measured from the bottom of the ocean, Mauna Kea is 32,000 ft (9,750 m) tall.

Mexico has four major mountain ranges or the Sierra Madre (See-air-uh Mah-dray) Oriental, Sierra Madre Occidental, and Sierra Nevada, and Sierra Madre del Sur (See-air-uh Mah-dray dell Suhr). The length of each mountain range is listed below.

Mountain Range	Approximate Length (how long)
Sierra Madre Oriental	620 mi (1,000 km)
Sierra Madre Occidental	700 mi (1,100 km)
Sierra Nevada	560 mi (900 km)
Sierra Madre del Sur	620 miles (1,000 km)

The highest point in Mexico is Pico de Orizaba. Pico de Orizaba is a composite volcano and is 18,491 feet (5,636 meters) above sea level.

Land Features

Rivers

Hawai'i has few navigable rivers or rivers that are big enough for boats. Kauai is the only island with navigable rivers. The Wailua River on Kauai is 20 miles long and the only river in Hawai'i that fits boats bigger than kayaks. Kayaks can fit on the Hanalei River. It is about 16 miles long.

Mexico has many rivers. The longest river is the Rio Bravo (Ree-oh Bra-voh). The Rio Bravo begins in the United States as the Rio Grande (Ree-oh Grahn-day) and later becomes the Rio Bravo. This river forms part of the border between the U.S. and Mexico and is about 1,896 miles long.

Natural Disasters

Hawai'i can experience hurricanes, tsunamis, earthquakes and volcanic eruptions. Some of these natural disasters are summarized below.

- In September 1992, Hurricane Iniki hit Hawai'i. It caused much destruction or damage including destroyed homes, power outages and storm surges.
- In March 2011, there was a 6 foot tsunami in Maui where the water rose over some roads and, in some places, the water came 500 feet in toward the land. The tsunami damaged boats and flooded some homes.
- There was an earthquake in Hawai'i in 2006. The center of the earthquake was off the coast of the Big Island. The earthquake caused power outages (no electricity) and damaged roads and buildings.
- Kilauea, one of the five volcanoes on the Big Island, has been erupting since 1983. Its lava flows have damaged homes. Mauna Loa, another volcano on the Big Island, erupted in 1984. The lava from this eruption came close to the city of Hilo.



Wailua River in Kauai. (Wailua River by fadedpictures, from <http://www.flickr.com/photos/fadedpictures/1623727104/>, available under [Creative Commons Attribution 2.0 Generic](#) license.)

Mexico can also experience tsunamis, earthquakes and volcanic eruptions. Some of these natural disasters are summarized below.

- In 2002, Hurricane Lane hit Mexico. It caused flooding, destroyed homes and knocked out power.
- There was a small tsunami in Mexico in 1995. It caused flooding and the water also came inland.
- One of the most recent and strongest earthquakes to hit Mexico occurred (happened) in September 2012. The earthquake damaged and destroyed homes, caused power outages and the airport in Mexico City closed for a short time.
- Colima Volcano in Mexico has been erupting since 1998 and is among Mexico's most active volcanoes.

Number of People

Hawai'i has a population, or the number of people that live in a place, of about 1,405,701. The median age of the people in Hawai'i is about 39 years old.

Mexico's population totals about 114,975,406. The median age of the people of Mexico is around 27 years old.

Colors of Flag

The Hawaiian state flag is red, white and blue. There are eight stripes on the flag that represent each of the major Hawaiian Islands.

The Mexican flag is green, white and red. There is also an eagle holding a snake sitting on top of a cactus on the flag.

As seen above, there are many similarities and differences between Hawai'i and Mexico.

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Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
State or Country	State	Country
Location	<p>north central Pacific Ocean</p> <p>not part of North American continent</p> <p>bordered by Pacific Ocean</p> <p>no bordering states or countries</p>	<p>North America</p> <p>Bordered by U.S., Belize and Guatemala</p> <p>Bordered by Caribbean Sea, Pacific Ocean, Gulf of Mexico</p>
Size	total land area = 6,422.6 square miles	total land area = 761,606 sq mi
# of islands		
Landforms – Mountains		
Land Features – Rivers		

Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
Natural Disasters – Hurricane		
Natural Disasters – Tsunami		
Natural Disasters – Earthquake		
Natural Disasters – Volcano		

Hawai'i and Mexico
Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
People		
Flag		

Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
State or Country		
Location		
Size		
# of islands		
Landforms – Mountains		

Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
Land Features – Rivers		
Natural Disasters – Hurricane		
Natural Disasters – Tsunami		
Natural Disasters – Earthquake		

Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
Natural Disasters – Volcano		
People		
Flag		

Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
State or Country		
Location		
Size		

Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico

Hawai'i and Mexico
Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico

Hawai'i and Mexico

Compare and Contrast Matrix – ANSWER KEY

Category/Attribute	Hawai'i	Mexico
State or Country	<ul style="list-style-type: none"> • State 	<ul style="list-style-type: none"> • Country
Location	<ul style="list-style-type: none"> • North Central Pacific Ocean • not part of North American continent • bordered by Pacific Ocean • has no bordering states or countries 	<ul style="list-style-type: none"> • south of U.S. • in North America • bordered by U.S., Belize and Guatemala • bordered by Caribbean Sea, Pacific Ocean, Gulf of Mexico
Size	<ul style="list-style-type: none"> • total land area = 6,422.6 square miles 	<ul style="list-style-type: none"> • Total land area = 761,606 sq mi
# of islands	<ul style="list-style-type: none"> • 137 islands • eight major islands • eight main islands = 90% of state 	<ul style="list-style-type: none"> • many islands • land area of islands = 2,137 sq. miles • located in Pacific Ocean, Gulf of Mexico, Caribbean Sea and Gulf of California • islands = 0.3% of state
Landforms – Mountains	<ul style="list-style-type: none"> • underwater mountain range • 1,500 miles long • highest mountain = Mauna Kea • highest mountain is shield volcano • highest mountain = 13,796 ft above sea level • highest mountain • measured from bottom of ocean = 32,000 ft tall 	<ul style="list-style-type: none"> • four major mountain ranges • Sierra Madre Oriental = 620 mi long • Sierra Madre Occidental = 700 mi long • Sierra Nevada = 560 mi long • Sierra Madre del Sur = 620 mi long • Highest point = Pico de Orizaba • highest mountain is composite volcano • highest mountain = 18,491 ft. above sea level
Land Features – Rivers	<ul style="list-style-type: none"> • few navigable rivers • Kauai only island with navigable rivers • Wailua River on Kauai = 20 mi long 	<ul style="list-style-type: none"> • has many rivers • Rio Bravo = longest river • begins in U.S. as Rio Grande • river forms part of border

	<ul style="list-style-type: none"> • Wailua River = only river in HI that fits boats bigger than kayaks • Hanalei River = 16 miles long, can fit kayaks 	<ul style="list-style-type: none"> • with U.S. • is 1,896 mi long
Natural Disasters – Hurricanes	<ul style="list-style-type: none"> • 1992 – Hurricane Iniki • destroyed homes • caused power outages • caused storm surges 	<ul style="list-style-type: none"> • 2002 – Hurricane Lane • caused flooding • destroyed homes • knocked out power
Natural Disasters – Tsunami	<ul style="list-style-type: none"> • March 2011 • 6 ft tsunami • water rose over roads • water came 500 ft toward land • damaged boards and flooded some homes 	<ul style="list-style-type: none"> • 1995 small tsunami • caused flooding • water came inland
Natural Disasters – Earthquake	<ul style="list-style-type: none"> • 2006 earthquake • center of earthquake off Big Island • caused power outages • damaged roads and buildings 	<ul style="list-style-type: none"> • September 2012 • damaged and destroyed homes • caused power outages • Mexico City airport closed for short time
Natural Disasters – Volcanoes	<ul style="list-style-type: none"> • Kilauea erupting since 1983 • lava damaged homes • Mauna Loa erupted 1984 • Lava came close to Hilo 	<ul style="list-style-type: none"> • Colima erupting since 1998 • among Mexico's most active volcanoes
People	<ul style="list-style-type: none"> • population = 1,405,701 • median age = 39 years old 	<ul style="list-style-type: none"> • population = 114,975,406 • median age = 27 years old
Flag	<ul style="list-style-type: none"> • red • white • blue • eight stripes for each of the major Hawaiian islands 	<ul style="list-style-type: none"> • green • white • red • eagle holding snake on top of a cactus

Hawai'i and Mexico Compare and Contrast Matrix

Category/Attribute	Hawai'i	Mexico
State or Country	<ul style="list-style-type: none"> State 	<ul style="list-style-type: none"> Country
Location	<ul style="list-style-type: none"> North Central Pacific Ocean not part of North American continent bordered by Pacific Ocean has no bordering states or countries total land area = 6,422.6 square miles 	<ul style="list-style-type: none"> south of US in North America bordered by US, Belize and Guatemala bordered by Caribbean Sea, Pacific Ocean, Gulf of Mexico Total land area = 761,606 sq mi
Size		
# of islands	<ul style="list-style-type: none"> 137 islands eight major islands eight main islands = 90% of state 	<ul style="list-style-type: none"> many islands land area of islands = 2,137 sq. miles located in Pacific Ocean, Gulf of Mexico, Caribbean Sea and Gulf of California islands = 0.3% of country

Landforms – Mountains	<ul style="list-style-type: none"> underwater mountain range 1,500 miles long highest mountain = Mauna Kea highest mountain is shield volcano highest mountain = 13,796 ft above sea level highest mountain measured from bottom of ocean = 32,000 ft tall 	<ul style="list-style-type: none"> four major mountain ranges Sierra Madre Oriental = 620 mi long Sierra Madre Occidental = 700 mi long Sierra Nevada = 560 mi long Sierra Madre del Sur = 620 mi long Highest point = Pico de Orizaba highest mountain is composite volcano highest mountain = 18,491 ft. above sea level
Land Features – Rivers	<ul style="list-style-type: none"> few navigable rivers Kauai only island with navigable rivers Wailua River on Kauai = 20 mi long Wailua River = only river in HI that fits boats bigger than kayaks Hanalei River = 16 miles long, can fit kayaks 	<ul style="list-style-type: none"> has many rivers Rio Bravo = longest river begins in US as Rio Grande river forms part of border with US is 1,896 mi long
Natural Disasters – Hurricanes	<ul style="list-style-type: none"> 1992 – Hurricane Iniki destroyed homes caused power outages caused storm surges 	<ul style="list-style-type: none"> 2002 – Hurricane Lane caused flooding destroyed homes knocked out power

Natural Disasters - Tsunami	<ul style="list-style-type: none"> March 2011 6 ft. tsunami water rose over roads water came 500 ft. toward land damaged boards and flooded some homes 	<ul style="list-style-type: none"> 1995 small tsunami caused flooding water came inland
Natural Disasters - Earthquake	<ul style="list-style-type: none"> 2006 earthquake center of earthquake off Big Island caused power outages damaged roads and buildings 	<ul style="list-style-type: none"> September 2012 damaged and destroyed homes caused power outages Mexico City airport closed for short time
Natural Disaster - Volcanoes	<ul style="list-style-type: none"> Kilauea erupting since 1983 lava damaged homes Mauna Loa erupted 1984 Lava came close to Hilo 	<ul style="list-style-type: none"> Colima erupting since 1998 among Mexico's most active volcano
People	<ul style="list-style-type: none"> population = 1,405,701 median age = 39 years old 	<ul style="list-style-type: none"> population = 114,975,406 median age = 27 years old
Flag	<ul style="list-style-type: none"> red white blue eight stripes for each of the major Hawaiian islands 	<ul style="list-style-type: none"> green white red eagle holding snake on top of a cactus

Writing Compare and Contrast Reference Sheet

STRUCTURE #1

Paragraph #1 – how things are the **same**

Paragraph #2 – how things are **different**

Sample:

Apples and oranges are alike. Both oranges and apples are fruit. An orange has skin just like an apple. Oranges and apples are alike because they both have seeds.

Apples and oranges are also different. Oranges are different than apples because the skin of an orange is bumpy. On the other hand, the skin of an apple is smooth. Although oranges are orange, apples can be red, yellow or green.*

*Taken from Pacific Communities with High-performance In Literacy Development lesson demonstration. Sharon M. Look, demonstrator. Wailuku, HI. 2008.

STRUCTURE #2

Paragraph #1 (attribute or element #1) – how A and B are the same, how A and B are different.

Paragraph #2 (attribute or element#2) – how A and B are the same, how A and B are different.

Sample:

The myths of Papa and Wakea and Quetzalcoatl and Tezcatlipoca are alike and different.

Both myths explain the creation of something. The myth of Papa and Wakea explain the creation of the Hawaiian Islands. However, the myth of Quetzalcoatl and Tezcatlipoca explain how the earth and sky were created.

(attribute/element #1 = creation of something)

Assessment for Lesson 2: Landforms and Land Features Picture Sort

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student correctly sorts ALL pictures into the correct landform and land feature categories (NOT geographic location).	Student correctly sorts MOST pictures into the correct landform and land feature categories (NOT geographic location).	Student correctly sorts SOME pictures into the correct landform and land feature categories (NOT geographic location).	Student correctly sorts FEW pictures into the correct landform and land feature categories (NOT geographic location).

Group Assessment used for other purposes such as General Learner Outcomes in Hawai'i (e.g., ability to work with others).

Assessment for Lesson 2: Travel Brochure

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student correctly defines and places the landform or land feature in the correct location. Student uses two persuasive words in the brochure.	Student correctly defines and places the landform or land feature in the correct location. Student uses one persuasive word in the brochure.	Student either correctly defines OR places the landform or land feature in the correct location. Student uses one persuasive word in the brochure.	Student neither correctly defines nor places the landform or land feature in the correct location. Student uses no persuasive words in the brochure.

Assessment for Lesson 2: Hawai'i and Mexico Matrix

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student correctly identifies MOST similarities and differences between Hawai'i and Mexico.	Student correctly identifies SOME of the similarities and differences between Hawai'i and Mexico.	Student correctly identifies A FEW of the similarities and differences between Hawai'i and Mexico.	Student correctly identifies ALMOST NONE of the similarities and differences between Hawai'i and Mexico.

Assessment for Lesson 2: Hawai'i and Mexico Compare and Contrast Essay (Modified from ReadWriteThink.org)

CATEGORY	Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Purpose & Supporting Details	The paper compares and contrasts items clearly. The paper points to specific examples to illustrate the comparison. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is general. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is incomplete. The paper may include information that is not relevant to the comparison.	The paper compares or contrasts, but does not include both. There is no supporting information or support is incomplete.
Organization & Structure	The paper breaks the information into similarities-to-differences, and uses signal words. It follows a consistent order when discussing the comparison.	The paper breaks the information into similarities-to-differences, uses a few signal words but does not follow a consistent order when discussing the comparison.	The paper breaks the information into similarities-to-differences, uses signal words but some information is in the wrong section. Some details are not in a logical or expected order, and this distracts the reader.	Many details are not in a logical or expected order. There is little sense that the writing is organized.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1–2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3–4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content

Lesson 3

Myths

What are the stories of Hawai'i and Mexico?

Subject/Topic:

Social Studies, Language Arts

Objective(s):

Students will:

- view a cartoon myth.
- read a Hawaiian and Aztec creation myth.
- find similarities and differences in the myths.
- write a compare and contrast essay about the two myths.
- write and illustrate their own myth.

Guiding Questions:

- What is the purpose of a myth?
- How are the Hawaiian and Aztec creation myth the same?
- How are the Hawaiian and Aztec creation myth different?

Content Standards:

Social Studies

Standard 3: History: PRE-CONTACT HAWAII HISTORY: Understand the people, events, problems, and ideas that were significant in pre-contact Hawaiian history.

SS.4.3.10 Describe how significant people, including those of legend (including Papa and Wakea, Pele, and Pa'ao) affected pre-contact Hawaii.

Standard 6: Cultural Anthropology: SYSTEMS, DYNAMICS, AND INQUIRY: Understand culture as a system of beliefs, knowledge, and practices shared by a group and understand how cultural systems change over time.

SS.4.6.1 Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values, and behaviors are elements of culture and contribute to the preservation of culture.

Language Arts

Standard 3: Reading: LITERARY RESPONSE AND ANALYSIS: Respond to literary texts from a range of stances: personal, interpretive, critical.

LA.4.3.1 Explain the problem or conflict in a story and how it is resolved.

Standard 4: Writing: CONVENTIONS AND SKILLS: Use the writing process and conventions of language and research to construct meaning and communicate effectively for a variety of purposes and audiences using a range of forms.

LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.

Brief Summary of Lesson:

Students will learn how pre-contact people used stories to explain creation, natural phenomena, how to act and to entertain. Students will learn how oral tradition keeps a culture alive. To begin,

students will view a myth. Next students will read two creation myths and use a T-chart graphic organizer to find the similarities and differences between the two myths. Students will write a compare and contrast essay using the story elements (attributes/categories). Finally, students will write their own myths.

Materials:

Myth videos (<http://www.oiwi.tv/live/channels/keiki/pele-searches-for-a-home/> and <http://www.oiwi.tv/live/article/why-maui-snared-the-sun/>)

Myths worksheet that includes Hawaiian Island creation myth and Aztec creation myth (attached)

Myths worksheet that includes Hawaiian Island creation myth and Aztec creation myth – Answer Key (attached)

Myth story map (<http://teacherweb.com/NC/SalemElementary/KatrinaRaysClass/Myth-Story-Map.pdf>)

T-chart (attached)

T-chart answer key (attached)

Sample myth (attached)

Rubric (attached)

Lesson Sequence:

1. Teacher refers back to previous lesson and natural disasters. Teacher poses question “What causes a volcano to erupt?” Teacher leads discussion toward how pre-contact people explained natural phenomena or use of myths. Teacher activates background knowledge by asking students if they know myths that explain something in nature.
2. Students view animated myths *Pele Searches for a Home* and *Why Maui Snared the Sun*. Teacher hands out Myths worksheet and asks the purpose of these myths. Teacher leads discussion toward myths explaining natural phenomena and how to act.
3. Students read the myth of Papa and Wakeā. Teacher and students discuss the myth. Teacher and students summarize the myth in a myth story map. Teacher leads discussion guiding students to recognize that this myth explains the creation of something.
4. Students read the myth of Quetzalcoatl and Tezcatlipoca. Teacher and students discuss the myth. Students summarize the myth in story map. (Extension: Students may act out the myth.) Teacher leads discussion guiding students to see that this also explains creation. Teacher and students review story map.
5. Teacher models finding similarities and differences using story elements (characters, purpose of myth, etc.) and a T-chart. The T-chart headings are similarities and differences and may be a new format for students. Teacher provides bank of story elements. Students complete the graphic organizer.
6. Teacher and students review the graphic organizer. Students self-correct with a color pen. Teacher models how to use the graphic organizer to write a compare and contrast by element essay. This is a different pattern from the previous compare and contrast essay.

Teacher also models using signal words within the essay. Students finish writing their own essay. (Students may share with class afterwards.)

7. Teacher leads discussion about how myths were passed from one generation to another (oral tradition). Teacher engages students by asking if they have been told stories about their culture. (This could be turn and talk.) Note: these stories don't have to be myths. The focus of this part of the lesson is oral tradition.
8. Teacher models how to use myth story map to create your own myth. Students complete their own myth story map. (Alternatively, students may draw their own story map and fill in graphic organizer later. For example, students may first draw a conflict and resolution, then fill out the myth story map.)
9. Teacher models how to write a myth including how to write dialogue. (See Sample Myth.) Students may benefit from a resource reference sheet for this activity. Students write their own myths. After final revisions, students may illustrate their myth also. (Suggestion: Students may create their own myth booklet. Place the myths [Papa and Wakeā, Quetzalcoatl and Tezcatlipoca], compare and contrast T-chart, compare and contrast essay, and student's own myth and illustration into the booklet.) Students may share their myths with their classmates.
10. Teacher closes lesson by revisiting purpose of myths and how myths are passed from one generation to another. Students reflect on the lesson by answering "In this lesson I learned ..."
11. Material Collection: Students place the Hawaiian and Aztec myths, compare and contrast T-chart, compare and contrast essay, student's own myth and illustration, and reflection in portfolio. If students created myth booklet, place the Hawaiian and Aztec myths, myth booklet and reflection into the portfolio.

Assessment:

Students are assessed on the compare and contrast T-chart, compare and contrast essay using element format, and their own myth.

Myths

Myths are used for many reasons. Think about Pele Searches for a Home and Why Maui Snared the Sun. Why do you think the ancient Hawaiians told these myths?

1 –

2 –

3 –

Papa and Wakea*

Papa and Wakeā were two Hawaiian gods. Papa was a beautiful woman and Wakeā was an impressive man. Papa's full name is Papahānaumoku which means "Papa who gives birth to islands."

Papa and Wakeā were married and had a child. This child was the island of Hawai'i. Their next child born was the island of Maui. Afterwards they had another child and that child was the island of Kaho'olawe.

Papa and Wakeā live their lives. Papa then travels to Tahiti. While Papa is away, Wakeā meets another woman. Her name is Ka'ula. Wakea and Ka'ula are married and together they create another island or the island of Lanai. Then Wakeā meets another woman, Hina. Wakeā and Hina are married and together they produce Moloka'i.

Wakeā lives with his two wives. Papa is still in Tahiti but hears of Wakeā's new wives from a migrating bird named Laukaula. Papa returns to Hawai'i. Wakeā tells Papa it was true that he had two other wives. Papa is upset.

She later meets and marries a young man named Lua. Papa and Lua have a child and that child is O'ahu.

Later Papa and Wakeā come back together. Papa leaves Lua and Wakeā gives up his other wives. Together Papa and Wakeā have two more children, Kauai and then Ni'ihau.

*Summarized from - Armitage, Kimo. (2005) *Akua Hawai'i, Hawaiian Gods and Their Stories*. Honolulu, HI: Bishop Museum.

Why do you think the ancient Hawaiians told this story from one generation to the other?

Aztec Myth of Quetzalcoatl and Tezcatlipoca**

Quetzalcoatl and Tezcatlipoca were gods. They lived in the sky. They created things to live in the water below the sky. But a big Earth Goddess monster lived in the water. She ate everything Quetzalcoatl and Tezcatlipoca created.

Quetzalcoatl and Tezcatlipoca usually did not agree on much. However they agreed on the fact that the Earth Goddess monster had to be stopped. They turned themselves into two snakes and slid down to the water.

When they found the Earth Goddess monster, each snake wrapped itself around opposite ends of the monster's body. They tore the monster in two. The Earth Goddess monster's head and shoulders become the Earth. The rest of her body became the sky.

**Summarized from - Salterio Torres, James W. (2007). *Aztec Mythology: The Influence of Aztec Mythology on Mexican Culture and History*. Retrieved from <http://www.uh.edu/honors/honors-and-the-schools/houston-teachers-institute/curriculum-units/pdfs/2007/world-mythologies/salterio-07-myths.pdf>

Why do you think the ancient Aztecs told this story from one generation to the other?

How are the myths of Papa and Wakea and Quetzalcoatl and Tezcatlipoca the same?

How are the myths of Papa and Wakea and Quetzalcoatl and Tezcatlipoca different?

Use the graphic organizer to help you.

Myths Answer Key

Myths are used for many reasons. Think about Pele Searches for a Home and Why Maui Snared the Sun. Why do you think the ancient Hawaiians told these myths?

- 1 – Teaches you how to act.
- 2 – Explains nature.
- 3 – Entertains you.
- 4 – After reading myths below, add fourth reason: explains creation of something.

Papa and Wakea*

Why do you think the ancient Hawaiians told this story from one generation to the other?

To explain creation of Hawaiian Islands.

To entertain.

To keep stories/culture alive. Is example of oral tradition.

Aztec Myth of Quetzalcoatl and Tezcatlipoca**
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Why do you think the ancient Aztecs told this story from one generation to the other?

Told to explain how the Earth was made, to entertain, and to keep culture alive.

References for Myths Lesson

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Story Elements Bank

Main Characters

Setting

Purpose

Type of story

Conflict and Resolution

Myth T-Chart

Myth T-Chart (**ANSWER KEY**)

Same	Different
Type of Story: Both are myths.	<ul style="list-style-type: none"> • Papa and Wakeā is a Hawaiian myth. • Quetzalcoatl and Tezcatlipoca is an Aztec myth.
Purpose of myth: Both explain creation.	<ul style="list-style-type: none"> • Papa and Wakeā explain the creation of the Hawaiian Islands. • Quetzalcoatl and Tezcatlipoca explain how the Earth and sky were formed.
Setting: Both settings are in the gods' house* <small>*This is inferred.</small>	
Main Characters: Both myths have main characters that are gods.	<ul style="list-style-type: none"> • Papa and Wakeā are the main characters in the Hawaiian myth. • Quetzalcoatl and Tezcatlipoca are the main characters in the Aztec myth.
Conflict and Resolution: Both myths have gods that are angry with each other.	<ul style="list-style-type: none"> • Papa and Wakeā reconcile. • Quetzalcoatl and Tezcatlipoca rip apart the Earth Goddess monster.

Title – Coqui, Coqui, Coqui

Natural Event Explained – Why the coqui frog says “coqui, coqui, coqui”

Characters: Coqui Frog, Other Animal gods (Toad, Gecko, Bird)

Setting: Forest on Hawai’i Island

Conflict: Coqui Frog is too boastful about his beauty, brains and wit (humor). Angers other animals in the forest.

Key Events:

- 1 – Coqui Frog meets Toad – boasts about beauty. Calls Toad unattractive.
- 2 – Coqui Frog meets Gecko – boasts about brains. Tells Gecko he is smarter than him.
- 3 – Coqui Frog meets Bird – boasts about wit. Tells Bird he is funnier than him.
- 4 – Animals grumble about Coqui. Merge all their magical powers and shrink Coqui Frog into small animal that can only say “coqui, coqui, coqui.” This always reminds Coqui Frog that all animals are important and being boastful only results in you hurting yourself.

Coqui Frog, Toad, Gecko and Bird all live in a magical forest on Hawai'i Island. Each animal has equally strong magical powers.

Coqui Frog is the largest of all these animals. He also has beautiful, iridescent colors on his back. His eyes sparkle. He is one of the most attractive animals in the forest.

Coqui Frog is hopping along the in the forest when he meets Toad. Toad is brown with bumpy skin. Coqui Frog stops to chat with Toad.

"Toad, how are you this fine day?" chirps Coqui Frog.

"I am sad," replies Toad. "I am on my way to visit my toad friend with fewer bumps than me. I don't feel attractive when I'm around this toad friend."

"Well," preens Coqui Frog, "I'm glad I don't have to worry about that. I have beautiful smooth skin that is all the colors of the rainbow! And, I am gorgeous."

"What does it feel like to be so plain and have so many horrible bumps on your skin?" asks Coqui.

Toad's feelings are very hurt. He mumbles "I have to go, Coqui." Toad hops away.

Coqui continues hopping in the forest when he runs into Gecko.

"Gecko my friend!" booms Coqui. "How are you this lovely day?"

Gecko replies, "I've just come from playing chase and find your tail with some of the other animals in the forest that can lose their tails too. I am upset. I always lose. Those other animals are so much smarter than me."

Coqui says, "I don't know what that feels like Gecko. I am very smart. I know exactly where to find all the bugs I can eat. It is like a buffet of bugs! I don't know how you can't find your own tail Gecko! It is such an easy game."

Gecko frowns. "I have to go," says Gecko. He quickly scurries away. His feelings are hurt.

Coqui continues on his way and sees Bird.

"Good afternoon Bird! How are things high up in the sky?" asks Coqui.

Bird glumly replies, "Things in the sky are not so great. My bird friends have taken to telling jokes while flying around. I tried to tell many different jokes but my bird friends tell me they are like baby jokes. I don't know any sophisticated jokes."

Coqui smiles. “I am very witty Bird. I am the life of every party. I can tell very smart and funny jokes. I don’t know how come you can’t just tell a good sophisticated joke. You must not be very funny or witty.”

Bird is unhappy with Coqui. He quickly replies, “I have to go, Coqui” Bird flies away.

The next day Toad, Gecko and Bird all meet in the forest. They all agree that Coqui is too boastful and he doesn’t understand that all animals are special in their own way. All three animals decide to combine their magical powers to teach Coqui to be less boastful and more humble.

They cast a magical spell. The spell shrinks Coqui into a very small brown frog that can only say “coqui, coqui.” Therefore, Coqui can no longer boast about his beauty, brains or wit. Each time Coqui opens his mouth, he can only say “coqui, coqui” and will always be reminded to be humble.

And, this is why the coqui frog can only say “coqui, coqui, coqui.”

Assessment for Lesson 3: Myth T-Chart

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student correctly identifies ALL similarities and differences between myths.	Student correctly identifies MOST similarities and differences between myths.	Student correctly identifies SOME similarities and differences between myths.	Student correctly identifies FEW similarities and differences between myths.

Assessment for Lesson 3: Hawaiian and Aztec Myth Compare and Contrast Essay (Modified from ReadWriteThink.org)

CATEGORY	Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Purpose & Supporting Details	The paper compares and contrasts items clearly. The paper points to specific examples to illustrate the comparison. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is general. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is incomplete. The paper may include information that is not relevant to the comparison.	The paper compares or contrasts, but does not include both. There is no supporting information or support is incomplete.
Organization & Structure	The paper breaks the information into similarities -to- differences by elements, and uses signal words. It follows a consistent order when discussing the comparison.	The paper breaks the information into similarities -to- differences by elements, uses a signal words but does not follow a consistent order when discussing the comparison.	The paper breaks the information into similarities -to- differences by elements, uses signal words but some information is in the wrong section. Some details are not in a logical or expected order, and this distracts the reader.	Many details are not in a logical or expected order. There is little sense that the writing is organized.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1–2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3–4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content

Assessment for Lesson 3: Student Myth (Modified from ReadWriteThink.org)

CATEGORY	Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Purpose	The myth has two of the following three: explains natural phenomena, explains creation or tells you how to act.	The myth has one of the following three: explains natural phenomena, explains creation or tells you how to act.	The myth has one of the following three: explains natural phenomena, explains creation or tells you how to act. However, the myth is incomplete and does not fully explain its purpose.	The myth tells a story but does not explain natural phenomena, explain creation or tell you how to act.
Story Elements	The myth has a setting, characters, conflict and resolution. The myth concludes with an explanation of its purpose (e.g., this explains how the Hawaiian Islands were formed). The myth is written in an order (beginning, middle, end) and flows. The myth includes extensive dialogue.	The myth has a setting, characters, conflict and resolution. The myth does not conclude with an explanation of its purpose (e.g., this explains how the Hawaiian Islands were formed). The myth is written in some order (beginning, middle, end) and somewhat flows. The myth includes some dialogue.	The myth has a setting, characters, and a conflict and resolution. The myth lacks conflict and resolution details and does not have an explanation of its purpose (e.g., this explains how the Hawaiian Islands were formed). The myth does not follow an order (beginning, middle, end) and is choppy. The myth includes limited dialogue.	The myth lacks one or more of the following: setting, character or conflict and resolution. Myth does not follow an order (beginning, middle, end) and has no dialogue.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1–2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3–4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content.

Lesson 4

Use of objects in the sky Look to the sky!

Subject/Topic:

Social Studies
Language Arts

Objective(s):

Students will:

- read about Polynesian celestial navigation.
- make their own Hawaiian star compass (extension activity).
- read about Mayan astronomy/astrology.
- find similarities and differences in Polynesian and Mayan use of objects in the sky.
- write a compare and contrast essay about Polynesian and Mayan use of objects in the sky.
- locate the North Star .
- follow the maiden voyage of the Hikiliana from Tahiti to Hawai'i.

Guiding Questions:

- How did the Polynesians use the objects in the sky?
- How did the Mayans use the objects in the sky?
- How is the Polynesian use of the objects in the sky the same as the Mayans?
- How is the Polynesian use of the objects in the sky different than the Mayans?

Content Standards:Social Studies

Standard 3: History: PRE-CONTACT HAWAII HISTORY: Understand the people, events, problems, and ideas that were significant in pre-contact Hawaiian history.

SS.4.3.4 Describe the theories of early migrations from parts of Polynesia to Hawaii, including migration myths and legends.

SS.4.3.5 Identify reasons that early explorers, settlers, and immigrants came to Hawaii (including the influence of Pa'ao) or the Polynesian region and describe what their lives and experiences were like.

Standard 6: Cultural Anthropology: SYSTEMS, DYNAMICS, AND INQUIRY: Understand culture as a system of beliefs, knowledge, and practices shared by a group and understand how cultural systems change over time.

SS.4.6.1 Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values, and behaviors are elements of culture and contribute to the preservation of culture

Language Arts

Standard 2: Reading: READING COMPREHENSION: Use reading strategies to construct meaning from a variety of texts.

LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information.

LA.4.2.5 Summarize main points found in informational texts.

Standard 4: Writing: CONVENTIONS AND SKILLS: Use the writing process and conventions of language and research to construct meaning and communicate effectively for a variety of purposes and audiences using a range of forms.

LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.

Brief Summary of Lesson:

Students will learn how the Polynesians and Mayans used objects in the sky. (Note: the text focuses on particular uses and is not an exhaustive list of how Polynesians, Hawaiians or Mayans used objects in the sky.) Students will read two articles. The first article is about Polynesian celestial navigation. The second article is about how Mayans used objects in the sky. Then students will find similarities and differences in the Polynesian and Mayan uses of objects in the sky. Students will complete a graphic organizer or matrix. Finally, students will write a compare and contrast essay.

Materials:

Text – Using the Objects in the Sky (attached)

Text – Using the Objects in the Sky in Mexico (attached)

Compare and contrast matrix (attached)

Compare and contrast matrix answer key (attached)

Hikianalia route map (http://www.hawaiiink.net/~mms/www_hikianalia/)

Nainoa Thompson’s Hawaiian star compass

(http://pvs.kcc.hawaii.edu/ike/hookele/star_compasses.html) ©

Finding North Star directions

(http://coolcosmos.ipac.caltech.edu/cosmic_kids/AskKids/northstar.shtml)

Lesson Sequence:

1. Teacher activates background knowledge by reviewing previous lessons. In particular, teacher draws connection between myths and formation of Hawaiian Islands. Teacher poses question “How were the islands populated?” Teacher leads discussion about Polynesians migrating to Hawai’i and their voyage from their homeland to Hawai’i. Teacher thinks aloud, “I wonder how the Polynesians made their way to Hawai’i?”
2. Teacher and students read the text (Using the Objects in the Sky) and discuss Polynesian use of objects in the sky.
3. Teacher shows students the Hawaiian star compass, discusses modern day wayfinding (i.e., Polynesian Voyaging Society, Hokule’a) and the latest voyage from Tahiti to Hawai’i (i.e., Hikianalia). Teacher shows students map and crew blog entries. Teacher helps students tie in directions referred to in the blog posts (e.g., east, west, etc.) to the Hawaiian star compass. For homework, students search for North Star. (Extension activity – Students make their own copy of a star compass. Teacher may tie in Earth’s rotation to explain using the sun to find east and west.)
4. Teacher poses question, “I wonder if the Polynesians were the only ancient people to use the objects in the sky?” Teacher leads discussion toward Mayan use of objects in the sky.

Teacher and students read the text (Using the Objects in the Sky in Mexico) and discuss Mayan use of objects in the sky. (Extension activity – Teacher may tie in Earth’s rotation and revolution and seasons.) Teacher points out to students that they previously read an Aztec myth and are now reading about the Mayan use of objects in the sky. Teacher leads students to the fact that Mexico had many pre-contact people while Hawai’i only had one group of pre-contact people.

5. Teacher asks students if they think the Polynesian and Mayan use of objects in the sky are more similar or different. Teacher models how to fill out the graphic organizer (matrix). This may require more scaffolding because the unit is moving toward analyzing two texts rather than one text. Students complete remainder of graphic organizer on their own. (Differentiation – provide a blank graphic organizer for those students needing less support.)
6. Teacher and students review graphic organizer. Students use a different color pen to correct. Students find similarities and differences. Teacher and students review together. Students self-correct using a different color pen.
7. Teacher models how to use graphic organizer to write a compare and contrast essay. Teacher uses signal words while modeling. Teacher uses elements (attributes/categories) to model essay. Students write their own compare and contrast essay.
8. Teacher closes lesson by asking students how the Polynesians and Mayans were the same and how they were different. Teacher also asks students how they might use objects in the sky today. Students reflect on the lesson using the prompt “In this lesson I learned....”
9. Material Collection: Students place both texts, compare and contrast matrix and essay into their portfolio.

Assessment:

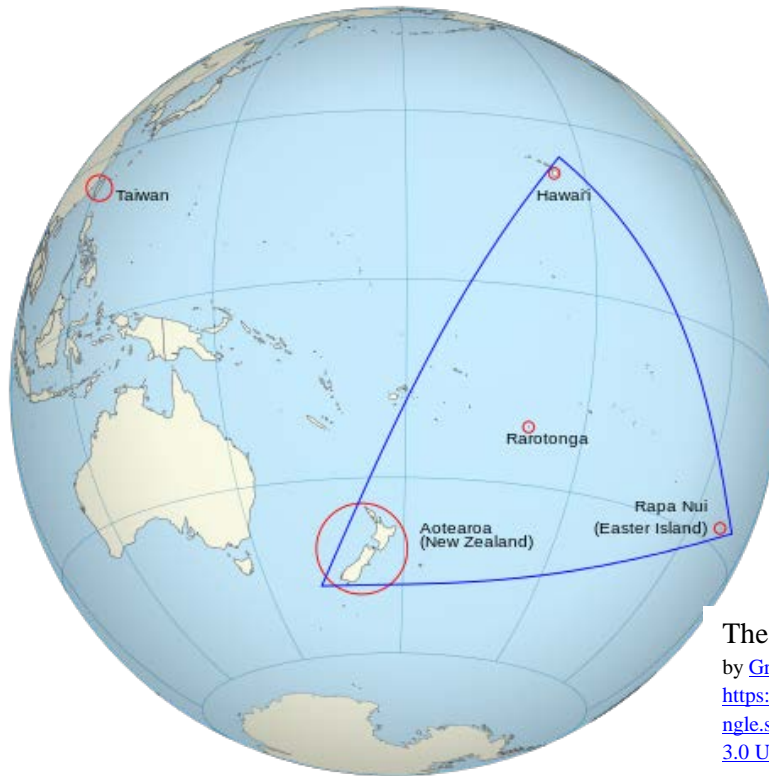
Students’ compare and contrast matrix and essay are assessed.

Using the Objects in the Sky

First People of Hawai'i

The first people of Hawai'i came from an area known as the Polynesian Triangle. The Polynesian Triangle stretches from Hawai'i to Easter Island to New Zealand and includes many islands. Together these islands are called Polynesia.

The word Polynesia comes from the word part “poly” and “nesos.” Both are Greek word parts. “Polys” means many and “nesos” means island. Putting these word parts together literally means “many islands.”



The Polynesian Triangle. (Polynesian Triangle, by [Gringer](#), from https://commons.wikimedia.org/wiki/File:Polynesian_triangle.svg, available under [Creative Commons Attribution 3.0 Unported](#) license)

The area of the Polynesian Triangle is about the same size as the area of North and South America put together. However, if you combined all the islands in the Polynesian Triangle, the land area is smaller than the state of New York.

The people of Polynesia explored the world using canoes. It is thought that the Polynesians even made it as far as South America because sweet potatoes could be found all over Polynesia. Sweet potatoes come from Peru (located in South America). There is more evidence supporting the idea that the Polynesians traveled as far as Peru. The Polynesians called sweet potatoes kumara. This is the same word used by the Peruvian Indians for sweet potato.

Wayfinding

The Polynesians did not have GPS or Google Maps to help them find their way over the vast (large) ocean. So how did they find their way? They used nature to help them find their way from one land area to another. This is called wayfinding when you don't use special equipment or tools (e.g., compass) to find your way.

Polynesian Voyaging Society

In the 1970s, the Polynesian Voyaging Society (PVS) was formed to discover exactly how the Polynesians navigated their way to Hawai'i. There weren't extensive or detailed records telling us how the Polynesians used nature to help them find their way from one place to another. This could be for many different reasons such as there weren't written records or chants were lost (ancient Hawaiians created dances, chants and stories to record their knowledge) or they couldn't find the people that knew about the ancient Polynesian navigation ways.

However, there was a little information about what the canoes looked like and how they were built. PVS worked to create a copy of what they thought the first canoes looked like. This canoe was named Hokule'a which means "star of gladness." Once they were done, they had to find someone to teach them about the ancient (from long ago) navigation ways.

There still remained the problem of finding someone to teach the PVS members how to use nature to navigate from one land area to another. PVS called on Mau Piailug from a tiny island in Micronesia. Knowing how to navigate the ocean was an important life skill for Mau and the people of the island. Their island is too small to grow all the food needed to survive. So Mau and others had to learn how to fish to survive. In order to survive, Mau had to learn how to read the ocean.

Mau shared his knowledge of using nature, including objects in the sky, to navigate the ocean. He also used the place where stars rose in the night sky, the moon, the sun, the ocean waves, clouds and wildlife to guide him



The Hokule'a. (Princess Taiping Sails with the Hokule'a by HongKongHuey, from <http://www.flickr.com/photos/46437992@N05/4267626397>, available under [Creative Commons Attribution 2.0 Generic](#) license)

A navigator has to also keep track of where they have been, where they are going and how fast the boat is going. Navigators use their senses and even their hands to help guide them. Your hand can be used to measure angles.

With Mau's help and the hard work of many people, the Hokule'a successfully sailed from Hawai'i to Tahiti without any special sailing tools. Since then, the Hokule'a has made additional trips to Polynesia and all over the world using only nature to guide the way.

Using nature to find your way

When the canoe is close to land, a navigator may use land or what they see under the water (e.g. reef) to guide or steer the canoe.

Once the canoe makes it into the open ocean away from land, a navigator can use the stars, sun, moon and other things to find their way. The sun and the moon rise in the east and set in the west. This helps the navigator determine or figure out the direction of where they are going.

Navigators can use the stars too. Just like the sun and moon, the stars rise in the east and set in the west. Also, there are other stars to tell north and south. For example, a navigator can use the North Star, or Hōkūpa'a, and the Southern Cross, or a group of stars in the south that form a cross, to figure out which direction is north and south.

Planets can also help guide the canoe. The planets that are visible, or able to be seen, include Mercury, Venus, Mars, Saturn, and Jupiter. Navigators use the position (location) of the planets along with the stars to help them navigate the canoe.

Ocean swells are also used to help steer the canoe. An ocean swell is like waves in the middle of the ocean. An ocean swell is created by storms or wind but last longer than the storm or wind that made them. Wind is also used to help guide the canoe. However, the swells and wind are not used by themselves to guide the canoe. They are used together with the stars and sun.

Seamarks are also used. Seamarks are signs of wildlife that tell the navigator they are at a certain place or location in the ocean. An example of a seamark is a group of swimming sharks. For example, seeing a group of swimming sharks could tell the navigator that they are two days journey from their final destination.

Finally, navigators also use land birds to help them steer the canoe. Some land birds fly out to the ocean to hunt for food during the day and return to land by the evening. Therefore, if one of these birds is spotted (and it isn't nesting season), the navigator knows they are close to land.

Would you go?

The Polynesians used their knowledge of nature and the ocean to sail long distances between Polynesia and Hawai'i. If you had the chance to do the same (sail without modern tools), would you go?

Vocabulary Words (definitions from <http://www.wordcentral.com>):

Navigate - 1a: to travel by water; b: to sail over, on, or through

2a: to direct one's course in a ship or aircraft; b: to control the course of: STEER

3: to make one's way about over, or through

Navigation – 1: the act or practice of navigating

2: the science of getting ships, aircraft, or spacecraft from place to place; *especially*: the method of figuring out position, course, and distance traveled

Navigator – one that navigates or is qualified to navigate

Using the Objects in the Sky in Mexico

Ancient People

The ancient people of Mexico were different from the ancient people of Hawai'i. Before Europeans or Americans arrived in Hawai'i, the people that lived in Hawai'i were known as the Hawaiian people. Unlike Hawai'i, there were many ancient peoples in Mexico including the group of people called the Aztecs as well as the Olmecs, Mayans, Toltecs, Zapotecs and Totonacs.

This article focuses on the Mayans. The Mayans lived in an area that included Mexico, Guatemala, Belize, El Salvador and Honduras.

Mayans and the Sky

The Mayans closely watched the sky. They believed the gods were the objects in the sky such as the sun, moon, certain stars and planets. The gods' movement was their way of communicating with the Mayans.

These gods helped the Mayans make many decisions in their lives. For example, when the Mayans observed certain stars or planets, they knew it was a good time to plant crops. Also, the Mayans used Venus to help them time their wars or battles. The sky also predicted events. For instance, when Mayans saw a comet, it meant that a noble person was going to pass away.

Because the objects in the sky were important, the Mayans built observatories to help them watch the sky. Some buildings were built to face certain directions. For example, some hypothesize that this pyramid was built to show the shadow of a serpent two times a year. Some buildings had windows facing a certain direction to watch particular events.



Chichen Itza pyramid showing the shadow of a serpent. (Chichen Itza Temple of Kukulcan Serpent, by [Bmamlin](#), from http://en.wikipedia.org/wiki/File:Chichen_Itza_Temple_of_Kukulcan_Serpent.JPG, available under public domain.)

Objects in the Sky

The most important object in the sky was the sun because it provides for humans' basic needs. The sun appears in different parts of the sky because of the tilt of the Earth. Watching the sun also allowed the Mayans to keep track of the seasons.

The moon was also important. Depending on its appearance, the moon is either a young or old goddess. When the moon appears to be getting larger (i.e., we see more and more of a moon), the goddess is a young woman. When the moon appears to be getting smaller (i.e., we see less and less of a moon), the goddess is an old woman that rules childbirth.

Venus was also significant (important) to the Mayans. Not only did Mayans use Venus to help them plan when to go to battle, it was also connected with the god Quetzalcoatl. Mayans watched Venus closely and considered it bad luck when Venus rose in the morning. They stayed inside and tried to avoid any light from Venus.

The stars were important and used to determine planting. Certain stars, such as the Southern Cross, Big Dipper, Orion's Belt and Cassiopeia, were important to the Mayans. Stars were also used to plan festivals. Special star events also predicted the future.

Keeping Track

There were special priests who watched the sky. They recorded their findings and were able to accurately keep track of the different cycles of the objects in the sky such as the cycles of the moon and Venus. The Mayans accurately determined there are 365 days in a year.

The Mayans also created calendars. The Mayans kept four different calendars.

Information Lost

Some of the information about how the Mayans used the sky comes from codices. The codices are folded books made of tree bark. The Mayans mostly used the bark of the wild fig tree. The Mayans recorded many different things in these books.

Today there are only four codices left. After the Europeans arrived, they burned the Mayan codices. They believed the books were evil, or bad.

In addition to the codices, scientists used archeological sites (a place where there is evidence of past people and their lives) and artifacts (things made or used by humans that lived in the past), and books written by the Europeans to learn more about the Mayans.

The Mayans weren't the only ancient people to watch the sky in Mexico and Central America. Other ancient people also used the sky too. How do you think you can use the sky to help you in your life?

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Use of Objects in the Sky: Compare and Contrast Matrix

Category or Attribute	Ancient Hawaiians	Ancient Mayans
Use of objects in the sky		
Use of the sun		
Use of the moon		
Use of the stars		
Use of planets		
How did they keep track of what they learned?		

Use of Objects in the Sky: Compare and Contrast Matrix – **ANSWER KEY**

Category or Attribute	Ancient Hawaiians	Ancient Mayans
Use of objects in the sky	<p>Navigate</p> <p>used stars</p> <p>used sun</p> <p>used moon</p> <p>used planets</p>	<p>help make decisions</p> <p>were gods, movement = gods</p> <p>communicating with Mayans</p> <p>used sun</p> <p>used moon</p> <p>used planets</p> <p>used stars</p>
Use of the sun	<p>used to determine direction</p> <p>used to find east and west (because sun rises in east and sets in west)</p>	<p>was most important object in sky because provided for basic needs</p> <p>used to keep track of seasons</p>
Use of the moon	<p>used to determine direction</p> <p>used to find east and west (because moon rises on east and sets in west)</p>	<p>moon was goddess</p> <p>when moon gets larger, goddess is young woman</p> <p>when moon is getting smaller, goddess is old woman that rules childbirth</p>
Use of the stars	<p>used to determine direction</p> <p>used to find north, south, east, west</p> <p>used North Star to find north</p> <p>used Southern Cross to find south</p>	<p>used to predict future (e.g., when see a comet, a noble person is going to pass away)</p> <p>used to tell when to plant</p> <p>used to plan festivals</p>
Use of planets	<p>used to determine direction</p> <p>used Mercury</p> <p>used Venus</p> <p>used Mars</p> <p>used Saturn</p> <p>used Jupiter</p>	<p>used Venus to plan battles or wars</p> <p>Venus tied to Quetzalcoatl</p> <p>used to tell when to plant</p> <p>helped make decisions – bad luck when Venus rose in the morning</p>
How did they keep track of what they learned?	<p>used chants, dances and stories</p>	<p>wrote in codices</p>

Use of Objects in the Sky
Compare and Contrast Matrix – ANSWER KEY

Category or Attribute	Ancient Hawaiians	Ancient Mayans
Use of objects in the sky	<p>Navigate</p> <p>used stars used sun used moon used planets</p>	<p>helped make decisions</p> <p>were gods, movement = gods communicating with Mayans</p> <p>used sun used moon used planets used stars</p>
Use of the sun	<p>use to determine direction</p> <p>use to find east and west (because sun rises in east and sets in west)</p>	<p>was most important object in sky because provided for basic needs</p> <p>used to keep track of seasons</p>
Use of the moon	<p>use to determine direction</p> <p>use to find east and west (because moon rises on east and sets in west)</p>	<p>moon was goddess</p> <p>when moon gets larger, goddess is young woman</p> <p>when moon is getting smaller, goddess is old woman that rules childbirth</p>
Use of the stars	<p>use to determine direction</p> <p>use to find north, south, east, west</p> <p>use North Star to find north</p> <p>use Southern Cross to find south</p>	<p>used to predict future (e.g. when see a comet, a noble person is going to pass away)</p> <p>used to tell when to plant</p> <p>used to plan festivals</p>
Use of planets	<p>use to determine direction</p> <p>used Mercury</p> <p>used Venus</p> <p>used Mars</p> <p>used Saturn</p> <p>used Jupiter</p>	<p>used Venus to plan battles or wars</p> <p>Venus tied to Quetzalcoatl</p> <p>used to tell when to plant</p> <p>helped make decisions – bad luck when Venus rose in the morning</p>
How did they keep track of what they learned?	<p>used chants, dances and stories</p>	<p>wrote in codices</p>

Assessment for Lesson 4: Use of Objects in the Sky Matrix

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student correctly identifies MOST similarities and differences between Polynesian and Mayan use of objects in the sky.	Student correctly identifies SOME of the similarities and differences between Polynesian and Mayan use of objects in the sky.	Student correctly identifies A FEW of the similarities and differences between Polynesian and Mayan use of objects in the sky.	Student correctly identifies ALMOST NONE of the similarities and differences between Polynesian and Mayan use of objects in the sky.

Assessment for Lesson 2: Polynesian and Mayan Use of Objects in the Sky Compare and Contrast Essay (Modified from ReadWriteThink.org)

CATEGORY	Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Purpose & Supporting Details	The paper compares and contrasts items clearly. The paper points to specific examples to illustrate the comparison. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is general. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is incomplete. The paper may include information that is not relevant to the comparison.	The paper compares or contrasts, but does not include both. There is no supporting information or support is incomplete.
Organization & Structure	The paper breaks the information into elements, and uses signal words. It follows a consistent order when discussing the comparison.	The paper breaks the information into elements, uses a few signal words but does not follow a consistent order when discussing the comparison.	The paper breaks the information into elements, uses signal words but some information is in the wrong section. Some details are not in a logical or expected order, and this distracts the reader.	Many details are not in a logical or expected order. There is little sense that the writing is organized.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1–2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3–4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content.

Lesson 5

Natural Resources – Coconut Palm Tree and Maguey

How did ancient Hawaiians and ancient Mexicans use the land to help them survive?

Subject/Topic:

Social Studies

Language Arts

Objective(s):

Students will:

- read about ancient Hawaiian use of coconut palm tree and pre-contact Mexicans use of maguey plant.
- find similarities and differences in uses of coconut palm and maguey.
- write a compare and contrast essay about the ancient Hawaiians' use of the coconut palm and ancient Mexicans' use of maguey.
- find uses for a rubber band.

Guiding Questions:

- How did the Polynesians use the coconut tree?
- How did the ancient Mexicans use maguey?
- How are the Polynesian use of the coconut tree and ancient Mexican use of maguey the same?
- How are the Polynesian use of the coconut tree and ancient Mexican use of maguey different?
- How did ancient people meet their needs?
- How can you apply this lesson to your life?

Content Standards:

Social Studies

Standard 3: History: PRE-CONTACT HAWAII HISTORY: Understand the people, events, problems, and ideas that were significant in pre-contact Hawaiian history.

SS.4.3.1 Explain the origins and culture of early Hawaiians.

Language Arts

Standard 2: Reading: READING COMPREHENSION: Use reading strategies to construct meaning from a variety of texts.

LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information.

LA.4.2.5 Summarize main points found in informational texts.

Standard 4: Writing: CONVENTIONS AND SKILLS: Use the writing process and conventions of language and research to construct meaning and communicate effectively for a variety of purposes and audiences using a range of forms.

LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.

Standard 6: Oral Communication: CONVENTIONS AND SKILLS: Apply knowledge of verbal and nonverbal language to communicate effectively in various situations: interpersonal, group, and public: for a variety of purposes.

LA.4.6.1 Participate in grade-appropriate oral group activities.

LA.4.6.2 Give short, informal presentations to inform or persuade.

Brief Summary of Lesson:

Students will learn how pre-contact people used natural resources to meet their needs. First, students will read about the ancient Hawaiians' use of the coconut palm tree and ancient Mexicans' use of the maguey plant. Next, students will use a matrix to compare and contrast the ancient Hawaiians' use of the coconut palm tree and the ancient Mexicans' use of the maguey plant. Then, students will write a compare and contrast essay. Finally, students will come up with as many uses as they can for a rubber band.

Prior Knowledge:

Students should have an understanding of the four basic needs of humans (i.e. water, air, food and shelter).

Materials:

Coconut and Maguey text (attached)

Coconut and Maguey compare and contrast matrix (attached)

Coconut and Maguey compare and contrast matrix Answer Key (attached)

Directions for weaving a fish (extension activity) (<http://diyhowtodo.blogspot.com/2011/02/how-to-weave-fish-from-reused-paper.html>)

Rubber band direction sheet (attached)

Rubber band

Lesson Sequence:

1. Teacher opens lesson by activating background knowledge from previous lesson. Teacher asks, "Now that we know how the Polynesians navigated their way to Hawai'i, how did they survive here? What did they use to meet their basic needs?"
2. Students brainstorm ways basic needs were met and share with the class. Teacher leads discussion toward difference between meeting needs in modern times (i.e., go to the store and purchase the things) and pre-contact times (i.e., use nature to meet basic needs).
3. Teacher asks students if they think using nature to meet a person's needs is exclusive only to the ancient Hawaiians or if it applies to other pre-contact peoples also. Teacher informs students they will be reading about how ancient peoples met their needs.
4. Teacher and students read and discuss the text. Note: text does not include clear headings. During discussion, teacher should guide students toward recognizing the three main categories of information (How the tree/plant came to Hawai'i/Mexico, How the tree/plant was used, Facts about the tree/plant). This is purposeful and aims to build students' ability to analyze text. Next, teacher leads discussion toward the similarities and differences in the Hawaiians' use of the coconut palm tree and the ancient Mexicans' use

of the maguey plant. Teacher scaffolds by reminding or providing students with the three main categories or attributes to help students locate similarities and differences.

5. Teacher models how to complete the graphic organizer. (Note: students may use a T-chart instead of a matrix. If using a T-chart, teacher may let students determine three main categories on their own. Students will write all information from article in T-chart and use T-chart to determine main categories.) Students finish completing graphic organizer on their own. Teacher and students review graphic organizer. Students use a different color pen to correct. Students find similarities and differences. Teacher and students review together. Students self-correct using a different color pen.
6. Teacher models how to use graphic organizer to write a compare and contrast essay. Teacher shows how to use categories as elements and models an element compare and contrast essay. Teacher also models using signal words. Students write their own compare and contrast essay.
7. An extension activity is a demonstration of using natural resources to meet human needs. For example, a parent or student could teach the class how to weave. This simulates lauhala weaving. (See Materials section for website with directions.)
8. Teacher asks students how the ancient people met their needs and leads them to see people had to be creative. (If teacher is to use rubber band rubric below, students must have been taught about the basic needs of human beings.) Teacher informs students it is their turn to be creative. Teacher asks students to come up with as many uses as they can for a rubber band. Teacher provides further directions (rubber band direction sheet).
9. Students share their findings with each other (in a group) and choose one (rubber band and rubber band plus other) to present to the class. Students nominate a presenter that presents their findings.
10. Teacher closes lesson by asking students how the ancient Hawaiians' use and ancient Mexicans' use of nature was the same and different. Teacher leads students to realize ancient people practiced environmental conservation by using a large portion of the tree or plant. Teacher asks students if they practice the same philosophy in their lives (i.e., concept of reduce and reuse). Teacher leads students to further understand the concept of mālama 'āina or the belief that if you take care of the land, the land will take care of you.
11. Teacher asks students what they are doing to mālama 'āina. Students share with the class. Finally, students reflect on the lesson using the prompt "In this lesson I learned...."
12. Material Collection: Students place the text, compare and contrast matrix and essay, list of rubber band uses and reflection into their portfolio.

Assessment:

Students' compare and contrast matrix and essay are assessed. Students' rubber band ideas are assessed only as it relates to understanding a human's basic needs.

How many ways can you use a...?

Have you ever thought about how different your life would be if you lived in ancient times? How would you meet your basic needs? Ancient peoples found ways to use nature to help them meet their basic needs and to entertain themselves.

Hawai'i

Plants and other living things arrive in Hawai'i

Before the Polynesians arrived in Hawai'i, plants and other living things made their way to the islands. Seeds, plants and insects found their way to Hawai'i on the wind, on the ocean and on birds. Over many years, these first living organisms adapted to meet their needs in the new land.

When the Polynesians arrived in Hawai'i, there was already plant life on the islands. For example, they found olonā and lauhala. The settlers found ways to use the existing plants on the islands to help meet their needs. For example, the settlers made ropes and mats out of olonā and lauhala.

Polynesians bring plants and animals

The Polynesians also brought some of their own plants and animals such as kalo (taro), niu (coconut), wauke (paper mulberry), pua'a (pig), 'ilio (dog), and moa (chicken) to meet their needs. These were brought for food and for other uses throughout their lives. The plants brought by the Polynesians are called canoe plants.

The Polynesians found many different uses for the plants they found and brought with them. The plants were used to meet their needs. One example of many uses for one plant is the coconut tree. The Polynesians found uses for all parts of the coconut tree. The coconut tree could be used as building materials for houses and canoes. Coconut meat could be used for food and the liquid inside can be used for drink. Other parts of the tree were used for lamps, baskets, brooms, musical instruments and dishes. The coconut tree could be used to make ropes. One part of the tree can be used to make a needle for stringing lei. The coconut oil could be used for smoothing skin. Coconut could also be used to help with medical problems like asthma too.



Niu. (Cocos nucifera, Coconut palm, niu, by [Forest & Kim Starr](#) from <http://www.starrenvironmental.com/images/image/?q=031209-0059&o=plants>, available under [Creative Commons Attribution 3.0 License](#))

Coconut Tree

The coconut tree can grow up to almost 100 feet tall. The leaves can grow up to 13 to 20 feet long. A coconut tree can produce 50–80 fruit per year. Even today, in some places, the coconut tree is known as the “tree of life” because it still can be used in many ways.

Mexico

Mexico is different than Hawai'i. It is not an island. Unlike Hawai'i, Mexico also had many different ancient peoples including the group of people called the Aztecs as well as the Olmecs, Mayans, Toltecs, Zapotecs and Totonacs.



Maguey. (Maguey, by Mannyp, from <http://en.wikipedia.org/wiki/File:Maguey.jpg> , available under [Creative Commons Attribution-Share Alike 3.0 Unported](#) license)

Just like Hawai'i, the ancient peoples used the land to help them meet their needs. One plant used in many different ways to help meet the peoples' needs was maguey (muh-gay). However, unlike the coconut tree, maguey is native to Mexico.

The ancient people used the prickly maguey leaves to make ropes and cloth. The leaves could also be used as building material as well as for cooking. In addition, the prickly tips of the leaves were used as needles, both for medical and sewing purposes.

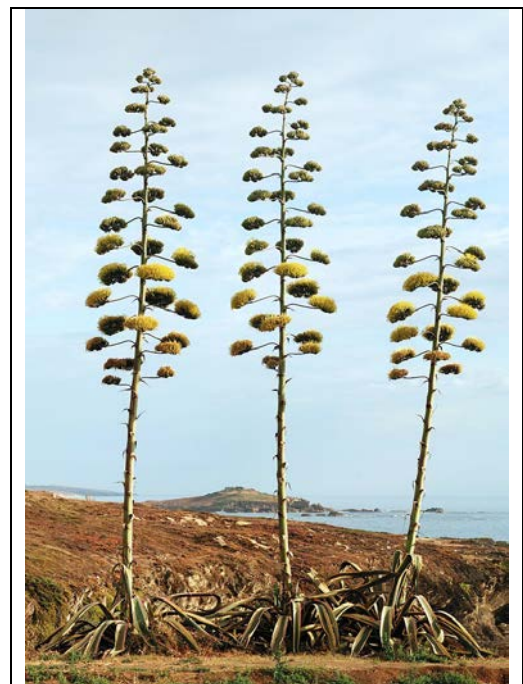
The maguey was also used as a drink. The name of the drink is aguamiel which is Spanish for "honey water." Pulque is another form of aguamiel and was used for special occasions only. Not everyone was allowed to drink the pulque.

Finally, maguey was also used as medicine to help sick people.

Maguey

The Spanish named the plant maguey. They got the name from the Taino (another group of people living at that time). In Nahuatl, or one of the languages spoken in the area where maguey is grown, the name is metl. The maguey looks like a cactus but isn't at all related to it.

The maguey plant lives for 20 to 30 years. The center part of the plant can grow up to 13 feet wide. The leaves can grow to 6 feet. It only flowers once in its lifetime and the main branch of flowers can grow up to about 26 feet high.



Flowering maguey. (Agave, by [Alvesgaspar](#), from http://en.wikipedia.org/wiki/File:Agave_July_2011-1.jpg , available under [Creative Commons Attribution-Share Alike 3.0 Unported](#) license)

Be creative

The ancient peoples of Hawai'i and Mexico used the land to help meet their needs. They had to be creative to find ways to use the plants around them. Could you do it? Let's practice. How many ways can you use a rubber band?

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Coconut Palm and Maguey: Compare and Contrast Matrix

Category or Attribute	Coconut Palm	Maguey
How it came		
How it was used		
Facts		

Coconut Palm and Maguey: Compare and Contrast Matrix ANSWER KEY

Category or Attribute	Coconut Palm	Maguey
How it came	Polynesians brought to Hawai'i	Native to Mexico
How it was used	Building materials for houses and canoes Food (coconut meat) Drink Lamps Baskets Brooms Musical instruments Dishes Ropes Needle for stringing lei Smoothing skin (oil) Medicine	Ropes Cloth Building material Cooking Needles (medicine and sewing) Drink (aguamiel) Medicine
Facts	100 ft tall Leaves grow up to 13 to 20 ft long 50–80 fruit per year Known as “tree of life”	Lives 20–30 years Center part grows up to 13 ft wide Leaves can grow up to 6 ft Flowers only once in lifetime Main branch of flowers can grow 26 ft high

Coconut Palm and Maguey
Compare and Contrast Matrix ANSWER KEY

Category or Attribute	Coconut Palm	Maguey
How it came	Polynesians brought to Hawai'i	Native to Mexico
How it was used	<p>Building materials for houses and canoes</p> <p>Food (coconut meat)</p> <p>Drink</p> <p>Lamps</p> <p>Baskets</p> <p>Brooms</p> <p>Musical instruments</p> <p>Dishes</p> <p>Ropes</p> <p>Needle for stringing lei</p> <p>Smoothing skin (oil)</p> <p>Medicine</p>	<p>Ropes</p> <p>Cloth</p> <p>Building material</p> <p>Cooking</p> <p>Needles (medicine and sewing)</p> <p>Drink (aguamiel)</p> <p>Medicine</p>
Facts	<p>100 ft. tall</p> <p>Leaves grow up to 13 to 20 ft. long</p> <p>50-80 fruit per year</p> <p>Known as "tree of life"</p>	<p>Lives 20-30 years</p> <p>Center part grows up to 13 ft. wide</p> <p>Leaves can grow up to 6 ft.</p> <p>Flowers only once in lifetime</p> <p>Main branch of flowers can grow 26 ft. high</p>

Rubber Band Direction Sheet

How many different ways can you use a rubber band to meet your basic needs? How many other ways can you use a rubber band? List all the ways you can use a rubber band on the left. Then list all the ways you can use a rubber band with other things on the right.

Rubber Band Only

Rubber Band Plus Other

Assessment for Lesson 5: Coconut Palm and Maguey Matrix

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student correctly identifies MOST similarities and differences between ancient Hawaiians' use of coconut palm and ancient Mexicans' use of maguey.	Student correctly identifies SOME of the similarities and differences between ancient Hawaiians' use of coconut palm and ancient Mexicans' use of maguey.	Student correctly identifies A FEW of the similarities and differences between ancient Hawaiians' use of coconut palm and ancient Mexicans' use of maguey.	Student correctly identifies ALMOST NONE of the similarities and differences between ancient Hawaiians' use of coconut palm and ancient Mexicans' use of maguey.

Assessment for Lesson 5: Ancient Hawaiians' Use of Coconut Palm and Ancient Mexicans' Use of Maguey (Modified from ReadWriteThink.org)

CATEGORY	Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Purpose & Supporting Details	The paper compares and contrasts items clearly. The paper points to specific examples to illustrate the comparison. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is general. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is incomplete. The paper may include information that is not relevant to the comparison.	The paper compares or contrasts, but does not include both. There is no supporting information or support is incomplete.
Organization & Structure	The paper breaks the information into elements, and uses signal words. It follows a consistent order when discussing the comparison.	The paper breaks the information into elements, uses a few signal words but does not follow a consistent order when discussing the comparison.	The paper breaks the information into elements, uses signal words but some information is in the wrong section. Some details are not in a logical or expected order, and this distracts the reader.	Many details are not in a logical or expected order. There is little sense that the writing is organized.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1–2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3–4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content.

Assessment for Lesson 5: Uses of a Rubber Band

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student's rubber band use meets two or more basic needs.	Student's rubber band use meets one basic need.	Student's rubber band does not meet any basic need.	Student's rubber band use does not meet any need.

Lesson 6

'Ohana and Guelaguetza

How do different groups of people live peacefully and grow stronger as a people?

Subject/Topic:

Social Studies

Language Arts

Objective(s):

Students will:

- read about the concept of 'ohana and guelaguetza.
- identify the similarities and differences between 'ohana and guelaguetza.
- write a compare and contrast essay about 'ohana and guelaguetza.
- engage in an experiential activity simulating ahupua'a and sharing of resources.

Guiding Questions:

- What is 'ohana?
- What is guelaguetza?
- How are 'ohana and guelaguetza the same?
- How are 'ohana and guelaguetza different?
- How can you practice 'ohana in your life?

Content Standards:

Social Studies

Standard 3: History: PRE-CONTACT HAWAII HISTORY: Understand the people, events, problems, and ideas that were significant in pre-contact Hawaiian history.

SS.4.3.1 Explain the origins and culture of early Hawaiians.

Standard 6: Cultural Anthropology: SYSTEMS, DYNAMICS, AND INQUIRY: Understand culture as a system of beliefs, knowledge, and practices shared by a group and understand how cultural systems change over time.

SS.4.6.1 Explain how language, traditional lore, music, dance, artifacts, traditional practices, beliefs, values, and behaviors are elements of culture and contribute to the preservation of culture.

SS.4.6.2 Describe how individuals or groups deal with conflict, cooperation, and interdependence within the ahupua'a.

Language Arts

Standard 2: Reading: READING COMPREHENSION: Use reading strategies to construct meaning from a variety of texts.

LA.4.2.2 Use organizational patterns (e.g., sequential, cause and effect) to access and understand information.

LA.4.2.5 Summarize main points found in informational texts.

Standard 4: Writing: CONVENTIONS AND SKILLS: Use the writing process and conventions of language and research to construct meaning and communicate effectively for a variety of purposes and audiences using a range of forms.

LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.

Brief Summary of Lesson:

Students will learn about the practice of ‘ohana and guelaguetza. Students will first read about ‘ohana and guelaguetza. Then students will find similarities and differences in each practice. Next, students will write a compare and contrast essay. Finally students will engage in a group activity simulating the practice of ‘ohana within an ahupua’a.

Prior knowledge:

It would be helpful for students to have a rudimentary understanding of the ahupua’a or land division.

Materials:

‘Ohana and Guelaguetza text (attached)

‘Ohana and Guelaguetza T-chart (attached)

‘Ohana and Guelaguetza T-chart answer key (attached)

‘Ohana interactive task directions, student worksheet and answer key (attached)

Group assessment (pg. 23, http://www.prel.org/media/176012/interactive_eis.pdf)

Lesson Sequence:

1. Teacher activates background knowledge of previous lessons. Teacher says, “Now that we’ve learned how the ancient Hawaiians met their basic needs, I wonder how they lived and worked together peacefully. I wonder how the people became stronger as a group.” Teacher elicits responses from students. Teacher poses question if student responses are specific to ancient Hawai’i only or if it pertains to people as well.
2. Teacher informs students that they will be learning more about how ancient peoples and people today work and live together peacefully.
3. Teacher and students read and discuss the text. Teacher leads discussion toward the similarities and differences in the practice of ‘ohana and guelaguetza. (Suggested activity to help students understand the difference between even exchange and gifting [sharing and helping without expecting repayment] – Yarn Spider Web: Students stand in circle. Student #1 has a ball of yarn and tosses it to Student #2. Student #2 tosses it back to Student #1. This represents an even exchange. To represent gifting, Student #1 tosses yarn to Student #2 (represents giving of gift). Student #2 tosses yarn to Student #3. Student #3 tosses yarn to Student #4, etc., etc., etc. This will make a yarn spider web and should help students understand the difference between even exchange and gifting.
4. Teacher models how to complete the T-chart graphic organizer. Students finish completing graphic organizer on their own. Teacher and students review graphic organizer. Students use a different color pen to correct. Students find similarities and differences. Teacher and students review together. Students self-correct using a different color pen.

5. Students write their own compare and contrast essay. Teacher gives explicit instructions to include signal words in the essay. Because this is among the final essays, there is purposely no modeling for students.
6. Teacher asks students what they've learned about 'ohana and guelaguetza leading the discussion toward helping each other. Teacher points out that the practice of helping is not exclusive to Hawai'i but is also practiced in Mexico. Teacher informs students they will be doing a group activity related to 'ohana and guelaguetza. Students engage in the activity and self-assess their group work. (Extension – may include probability in this part of the lesson. For example, what is the probability that your next color in the chain will be red?)
7. Teacher shows students finished product and guides discussion toward the connectedness between each person in the 'ohana.
8. Teacher closes lesson by asking students to reflect on what they've learned from the activity. Students share their thoughts. Teacher leads discussion toward how the practice of 'ohana helps us today. Teacher asks students to reflect on the lesson by asking, "How do you practice 'ohana today?" and "Why do you think 'ohana is important to practice today?"
9. Material Collection: Students place the text, compare and contrast T-chart and essay, group worksheet, and reflection into their portfolio.

Assessment:

Students are assessed using compare and contrast T-chart, and compare and contrast essay.

‘Ohana and Guelaguetza

“‘Ohana means family. Family means no one is left behind—or forgotten.” Lilo (Lilo & Stitch)

(Spencer, C. (Producer) & DeBlois, D. and Sanders, C. (Directors). 2002. Lilo & Stitch [Motion Picture]. USA: Walt Disney Pictures.)

‘Ohana is family. It can mean your immediate family (e.g., mom, dad, brother, sister) and extended family (e.g., grandmother, grandfather, cousins, aunts, uncles). It can mean anyone related to you and can include family members that have passed away.



Taro. The round bottom part is called a corm.

(Colocasia esculenta, Taro, kalo, by [Forest & Kim Starr](http://www.starrenvironmental.com/images/image/?q=091003-7567&o=plants), from <http://www.starrenvironmental.com/images/image/?q=091003-7567&o=plants>, available under [Creative Commons Attribution 3.0 License](#))

The main part of the word ‘ohana is ‘ohā. ‘Ohā refers to a shoot growing from a main part or stalk of a taro plant.

This describes how families are related to each other. Each family member can trace themselves back to one main family. In other words, each branch or leaf is connected back to the main stalk and root of the plant.

In ancient Hawai‘i, most members of an ‘ohana lived close to one other. They worked together and shared the things they made and grew.



Taro. (Colocasia esculenta, Taro, kalo, by [Forest & Kim Starr](http://www.starrenvironmental.com/images/image/?q=060329-6825&o=plants), from <http://www.starrenvironmental.com/images/image/?q=060329-6825&o=plants>, available under [Creative Commons Attribution 3.0 License](#))

The idea of ‘ohana was important to the ancient Hawaiians. It was a major part of the ahupua‘a system. The ancient Hawaiians divided the land into triangular-like pieces called an ahupua‘a. The ahupua‘a stretched from the top of the mountain to the sea. This allowed those living in the ahupua‘a to grow crops and fish for food and have access to water. In other words, the ancient Hawaiians could meet most of their basic needs without having to leave the ahupua‘a.

There are three different sections or parts of an ahupua‘a. These sections are the mountains (mauka), plains (kula) and the sea (makai). ‘Ohana living near the sea could fish for food. They shared this fish with the ‘ohana from the plains and mountains. The ‘ohana living in the plains grew taro and shared their taro with the ‘ohana from the sea and mountains. The ‘ohana in the mountains shared the koa (wood) growing on the mountain with the ‘ohana from the plains and sea.

If an ‘ohana could not find and share what they needed in their own ahupua’a, they could go share with another ahupua’a.

The meaning of ‘ohana has expanded or grown in modern times. Today ‘ohana can also include people that are like your family members but are not related to you at all. However, the idea of an ‘ohana working and sharing and helping each other out has remained the same.



The ancient Zapotecs of Mexico had a similar idea of sharing and helping each other out. The ancient Zapotecs were a group of people that lived in Mexico. They lived in an area called Oaxaca (Wuh-ha-cuh). Just like the Hawaiians, there are still Zapotecs living in Mexico today.

The 12 districts of Maui. (Map of the twelve historical mokus (districts) of Maui, by [Snlper](https://commons.wikimedia.org/wiki/File:Historic_Mokus_of_Maui_Map.svg), from https://commons.wikimedia.org/wiki/File:Historic_Mokus_of_Maui_Map.svg, available under public domain.)

The idea of sharing and cooperating is called guelaguetza (g-ell-uh-get-zah). Ancient Zapotecs and Zapotecs today practice guelaguetza. Guelaguetza is a Zapotec word that “means an offering or gift” (www.mexonline.com) or even “exchange of gifts and services” (Wikipedia.com).

Guelaguetza can be sharing and helping without expecting anything in return. It can also be sharing and helping expecting repayment. If the Zapotecs practice guelaguetza expecting repayment, they record the things they’ve shared or time worked. They write this information in a book. Sometimes the debt (what is owed) takes a long time to pay back. Repayment (paying back) is done in the exact form it was given. In other words, if a neighbor helps you prepare for a large party by making food, you are expected to do the same to repay them.

In either case, guelaguetza can come in different forms. First, people share their resources such as animals. For example, if one family is having a celebration, a neighbor may share or contribute their chickens to the party. Another way to share is labor or work. For example, a person may work on the community farm helping to harvest the crops or help make food for a neighbor’s celebration. Regardless of what is shared and how others are helped, just like the concept of ‘ohana, guelaguetza helps everyone.

How do you think you can practice ‘ohana and guelaguetza in your life?

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‘Ohana and Guelaguetza T-Chart

‘Ohana	Guelaguetza

‘Ohana and Guelaguetza T-Chart – ANSWER KEY

‘Ohana	Guelaguetza
means family (immediate, extended, alive or passed away)	Zapotecs had similar idea of sharing and helping each other out
‘ohana is a Hawaiian word	Zapotecs lived in Oaxaca, Mexico
main part of word is ‘ohā, means shoot growing from main part of stalk or root of taro	Zapotecs still live in Mexico
‘ohā describes how families are related	sharing and cooperating is called guelaguetza
lived close together	ancient Zapotecs and Zapotecs today practice guelaguetza
worked together	guelaguetza is Zapotec word meaning offering or gift or even exchange of gifts and services
share things made and grew and helped each other, no payment expected (implied in reading)	can be sharing without anything expected in return
important to ancient Hawaiians	can be sharing expecting repayment
can share with another ahupua’a	record debt in a book
major part of ahupua’a	repayment given in exact form given
lived in ahupua’a	shares resources
today includes non-family members but same idea of sharing and helping	share work or labor
helps everyone	helps everyone

‘Ohana and Guelaguetza T-Chart – **ANSWER KEY**

*Italics= similarities, **Bold = differences**, Regular type = extra information*

Note to teacher: This is a starting point for you and your students. Students may recognize other implied similarities or differences. For example, students may note Hawaiians live in Hawai'i whereas Zapotecs live in Mexico. Those sorts of similarities and differences are not noted below.

‘Ohana	Guelaguetza
means family (immediate, extended, alive or passed away)	guelaguetza is Zapotec word meaning offering or gift or even exchange of gifts and services
‘ohana is a Hawaiian word	sharing and cooperating is called guelaguetza
share things made and grew and helped each other, no payment expected (implied in reading)	can be sharing expecting repayment
	record debt in a book
	repayment given in exact form given
<i>share things made and grew and helped each other, no payment expected (implied in reading)</i>	<i>can be sharing without anything expected in return</i>
<i>important to ancient Hawaiians</i>	<i>ancient Zapotecs and Zapotecs today practice guelaguetza</i>
<i>today includes non-family members but same idea of sharing and helping (implied that ‘ohana is still a part of modern day culture)</i>	
<i>helps everyone</i>	<i>helps everyone</i>
<i>share things made and grew and helped each other, no payment expected (implied in reading)</i>	<i>Zapotecs had similar idea of sharing and helping each other out</i>
<i>share things made and grew and helped each other, no payment expected (implied in reading)</i>	<i>shares resources</i>
<i>worked together</i>	<i>share work or labor</i>

can share with another ahupua'a	Zapotecs lived in Oaxaca, Mexico
main part of word is 'ohā, means shoot growing from main part of stalk or root of taro	Zapotecs still live in Mexico
'ohā describes how families are related	
lived close together	
major part of ahupua'a	
lived in ahupua'a	

‘Ohana and Guelaguetza T-Chart – ANSWER KEY

‘Ohana	Guelaguetza
means family (immediate, extended, alive or passed away)	Zapotecs had similar idea of sharing and helping each other out
‘ohana is a Hawaiian word	Zapotecs lived in Oaxaca, Mexico
main part of word is ‘ohā, means shoot growing from main part of stalk or root of taro	Zapotecs still live in Mexico
‘ohā describes how families are related	sharing and cooperating is called guelaguetza
lived close together	ancient Zapotecs and Zapotecs today practice guelaguetza
worked together	guelaguetza is Zapotec word meaning offering or gift or even exchange of gifts and services
share things made and grew and helped each other	can be sharing without anything expected in return
important to ancient Hawaiians	can be sharing expecting repayment
can share with another ahupua’a	record debt in a book
major part of ahupua’a	repayment given in exact form given
lived in ahupua’a	shares resources
today includes non-family members but same idea of sharing and helping	share work or labor
helps everyone	helps everyone

‘Ohana Interactive Task Sheet

Directions for teacher:

Supplies needed for activity.

- Scissors
- Glue sticks
- Different color paper (template at end of directions). Ideally there should be one sheet per student in the group.

1 – Divide students into three groups representing the three areas of the ahupua’a.

- One group should be makai.
- A second group should be kula.
- A third group should be mauka.

2 – Give each group one supply.

Give the scissors to the makai group.

Give the glue sticks to the kula group.

Give a packet of color paper to the mauka group. (Be sure to clip the paper together into a packet)

3 – Show student the Directions for Activity

4 – Have students roll dice to determine their role.

5 – Hand out Recording Sheet. Have students complete the first side. Have students work together to finish the top of the second side.

6 – Have students complete the activity.

7 – Afterwards, discuss the question, “Now imagine that the scissors = food, glue stick = water, paper = shelter, what did you have in your part of the ahupua’a and what did you have to do to meet your needs?”

Help students draw the connection between the scissors, glue and paper and makai having food (fish), kula having water and mauka having wood (koa). Discuss how the students were only able to make the chain if they shared resources within an ‘ohana and ahupua’a. Guide students toward understanding that they need to share in order to meet their basic needs.

8 – Conclude the activity by having students answer the final question on the recording sheet.



Sample of ‘ohana chain

Directions for Activity

We are one 'ohana living in different parts of the same ahupua'a. In order to survive, we need to make a paper chain. You have to figure out how to make the chain. What would the ancient Hawaiians do to help them make the chain?

Each person in the ahupua'a has a role. Roll the dice to figure out your role.

The first person to roll a

- 1 = Time Keeper
- 2 or 5 = Emissary
- 3 = Facilitator
- 4 or 6 = Recorder

Recording Sheet

We are one 'ohana living in different parts of the same ahupua'a. In order to survive, we need to make a paper chain. You have to figure out how to make the chain. What would the ancient Hawaiians do to help them make the chain?

We live _____ in the ahupua'a.

The people in our 'ohana are _____

In our ahupua'a, we each have roles. Here are our roles and responsibilities.

Facilitator – person that leads the group.
Facilitator does not tell the group what to do but asks group members “What do you think we should do?” and “What should we do next?”
Emissary – person that goes to another 'ohana to share and trade resources.
Recorder – goes to teacher to get Recording Sheet. Records what your 'ohana does on Recording Sheet.
Time Keeper – keeps track of time and gets supplies from teacher. Reminds group how much time is left.

In our ahupua'a, we have _____

We need _____

How we get what we need to make our chain.

We _____

Once you have what you need, each group makes a chain.

Now imagine that the scissors = food, glue stick = water, paper = shelter, what did you have in your part of the ahupua'a and what did you have to do to meet your needs?

Recording Sheet – Answer Key

We are one 'ohana living in different parts of the same ahupua'a. In order to survive, we need to make a paper chain. You have to figure out how to make the chain. What would the ancient Hawaiians do to help them make the chain?

We live **makai or kula or mauka** in the ahupua'a.

The people in our 'ohana are **students write name of group members**

In our ahupua'a, we each have roles. Here are our roles and responsibilities.

Facilitator – person that leads the group.
Facilitator does not tell the group what to do but asks group members “What do you think we should do?” and “What should we do next?”
Emissary – person that goes to another 'ohana to share and trade resources.
Recorder – goes to teacher to get Recording Sheet. Records what your 'ohana does on Recording Sheet.
Time Keeper – keeps track of time and gets supplies from teacher. Reminds group how much time is left.

In our ahupua'a, we have **students write the supplies they have (e.g., glue)**

We need **students list supplies they need (e.g., paper)**

How we get what we need to make our chain.

We **have to share and trade resources**

Once you have what you need, each group makes a chain.

Now imagine that the scissors = food, glue stick = water, paper = shelter, what did you have in your part of the ahupua'a and what did you have to do to meet your needs?

We have to share, exchange and cooperate.

Template for Paper Chain

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Assessment for Lesson 6: ‘Ohana and Guelaguetza T-Chart

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Student correctly identifies MOST similarities and differences between ‘ohana and guelaguetza.	Student correctly identifies SOME of the similarities and differences between ‘ohana and guelaguetza.	Student correctly identifies A FEW of the similarities and differences between ‘ohana and guelaguetza.	Student correctly identifies ALMOST NONE of the similarities and differences between ‘ohana and guelaguetza.

Assessment for Lesson 6: ‘Ohana and Guelaguetza (Modified from ReadWriteThink.org)

CATEGORY	Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Purpose & Supporting Details	The paper compares and contrasts items clearly. The paper points to specific examples to illustrate the comparison. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is general. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is incomplete. The paper may include information that is not relevant to the comparison.	The paper compares or contrasts, but does not include both. There is no supporting information or support is incomplete.
Organization & Structure	The paper breaks the information into elements or similarities-to-differences, and uses signal words. It follows a consistent order when discussing the comparison.	The paper breaks the information into elements or similarities-to-differences, uses a few signal words but does not follow a consistent order when discussing the comparison.	The paper breaks the information into elements or similarities-to-differences, uses signal words but some information is in the wrong section. Some details are not in a logical or expected order, and this distracts the reader.	Many details are not in a logical or expected order. There is little sense that the writing is organized.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1–2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3–4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content.

Lesson 7

Culminating Activity, Reflection, Lesson Wrap Up Ho'okahi Ao, Ho'okahi 'Ohana/Un Mundo, Una Familia/One World, One Family

Subject/Topic:

Social Studies
Language Arts

Objective(s):

Students will:

- write a comparative essay about Hawai'i and Mexico using the graphic organizers and essays from the previous lessons.
- present their information via jigsaw to another class.
- reflect in their learning log about what they've learned in the unit.

Guiding Questions:

- How are Hawai'i and Mexico alike?
- How are Hawai'i and Mexico different?

Content Standards:Language Arts

Standard 2: Reading: READING COMPREHENSION: Use reading strategies to construct meaning from a variety of texts.

LA.4.2.5 Summarize main points found in informational texts.

Standard 4: Writing: CONVENTIONS AND SKILLS: Use the writing process and conventions of language and research to construct meaning and communicate effectively for a variety of purposes and audiences using a range of forms.

LA.4.4.1 Write in a variety of grade-appropriate formats for a variety of purposes and audiences.

Standard 6: Oral Communication: CONVENTIONS AND SKILLS: Apply knowledge of verbal and nonverbal language to communicate effectively in various situations: interpersonal, group, and public: for a variety of purposes.

LA.4.6.1 Participate in grade-appropriate oral group activities

LA.4.6.2 Give short, informal presentations to inform or persuade

Brief Summary of Lesson:

Students will learn that Hawai'i and Mexico have many similarities and some differences. Students will understand how we are one world and one 'ohana. Students will first analyze previous work to find similarities and differences between Hawai'i and Mexico. Students will then use the graphic organizers and essays from the previous lessons to write a comparative essay. Next, students will complete an art project illustrating the unit theme. Finally, students will share what they've learned from the previous lessons with another class or group in the school.

Materials:

Consolidated graphic organizer (attached) – Note: there are two different formats included; use is based on student preference

Additional Compare and Contrast pattern example (attached)

World ‘Ohana Circle project directions (attached)

Culminating project guidelines (attached)

Lesson Sequence:

1. Teacher activates background knowledge by asking students what they’ve learned over the course of the unit. Students turn and talk. Students contribute answers to whole class.
2. Teacher informs students that they will be writing a comparative essay using the graphic organizers and essays from previous lessons. Teacher refers students back to graphic organizers from previous lessons. Teacher models consolidating the information from the existing graphic organizers into a new consolidated graphic organizer (see consolidated graphic organizer). Teacher and students practice transferring information together. When teacher sees students are ready to complete task independently, they do so.
3. Teacher models using the consolidated graphic organizer to write a compare and contrast essay. Teacher models using A/B (similarities presented first, differences presented second) and elements (topics of each lesson) pattern. Teacher refers students back to writing compare and contrast reference sheet. Teacher also provides additional example. (See additional compare and contrast pattern example.) Students independently write a compare and contrast essay.
4. Teacher revisits original question posed in Lesson 1. “If you met someone from Mexico, do you think you would be more alike than different?” Teacher revisits original tally results (i.e., number of students that believed they are more different than someone from Mexico). Teacher draws on previous lessons and guides discussion toward recognizing there are more similarities between Hawai’i and Mexico than differences. To do this teacher reviews previous lessons (lesson titles) and lists similarities and differences for students to see there are more similarities than differences. This may take extensive discussion. Teacher focuses on shared history (e.g., use myths, use objects in the sky, use nature to meet their needs) and customs (‘ohana and guelaguetza). Teacher guides students to see that despite the differences between the people of the world, we are more alike than different. Teacher asks question again (“If you met someone from Mexico, do you think you would be more alike than different?”) and tallies students’ response. Teacher points out difference in original tally from Lesson 1 and current tally. Teacher thinks aloud change in position (e.g., more research, looking at commonalities, etc. leads to seeing how we are more alike than different).
5. Teacher refers back to the concept ‘ohana and asks students how this relates to the similarities and differences between Hawai’i and Mexico. Teacher leads students to see that our many similarities make us a world ‘ohana.

6. Teacher refers back to 'ohana chain created by students in previous lesson. Teacher guides discussion toward the connectedness between each person in an 'ohana. Teacher asks if the small 'ohana is part of a larger 'ohana and leads students to recognize that we are part of a larger world 'ohana. To visually represent this, students complete world 'ohana circle project.
7. Teacher asks students, "Now that we've learned more about our world 'ohana and the many similarities between Hawai'i and Mexico, if you met someone from another country like Russia, do you think you would be more similar than different? What would you do to help you answer this question? How would you figure out the answer?" Students turn and talk. Each student shares with the whole class OR students record their answer on their unit final reflection sheet. The goal is have students recognize they need to ask questions and critically think when meeting and working with new people.
8. To close the unit, teacher asks students to reflect on the unit title. Students respond to the prompt "Ho'okahi Ao, Ho'okahi 'Ohana/Un Mundo, Una Familia/One World, One Family means ..." and record their reflection on their unit final reflection sheet.
9. As a culminating project, students present the information learned with other students in the school. (See culminating project guidelines.)
10. Teacher returns to the KWL chart and the class completes the "What I Learned.." column. Teacher asks students what else they would like to learn. This can be used for further activities or enrichment.

Assessment:

Students are assessed using the comparative essay, group presentation, and unit final reflection.

Hawai'i and Mexico Consolidated Compare and Contrast Matrix

Category	How Mexico and Hawai'i are the same	How Mexico and Hawai'i are different
Landforms, Land Features and Natural Disasters		
Myths		

Category	How Mexico and Hawai'i are the same	How Mexico and Hawai'i are different
Use of Objects in the Sky		
Using Nature to Meet Needs		
'Ohana and Guelaguetza		

Hawai'i and Mexico Consolidated Compare and Contrast Matrix

Category	How Hawai'i and Mexico are the same
Landforms, Land Features and Natural Disasters	
Category	How Hawai'i and Mexico are different
Landforms, Land Features and Natural Disasters	

Category	How Hawai'i and Mexico are the same
Myths	
Category	How Hawai'i and Mexico are different
Myths	

Category	How Hawai'i and Mexico are the same
Use of Objects in the Sky	
Category	How Hawai'i and Mexico are different
Use of Objects in the Sky	

Category	How Hawai'i and Mexico are the same
Using Nature to Meet Your Needs	
Category	How Hawai'i and Mexico are different
Using Nature to Meet Your Needs	

Category	How Hawai'i and Mexico are the same
'Ohana and Guelaguetza	
Category	How Hawai'i and Mexico are different
'Ohana and Guelaguetza	

Additional Compare and Contrast Pattern Example

Example of A/B pattern:

Hawai'i and Mexico are similar. Both Hawai'i and Mexico have had earthquakes. Hurricane Iniki caused power outages in Hawai'i. Hurricane Lane also knocked out power in Mexico. In addition, both ancient Hawaiians and ancient Mexicans used nature to meet their needs. For example, the ancient Hawaiians used the coconut palm for needles. The ancient Mexicans used the maguey plant for needles too.

Hawai'i and Mexico are also different. The median age of people in Hawai'i is 39 years old while the median age of people in Mexico is 27 years old. In addition, the practice of 'ohana does not keep track of things or work time shared. In contrast, the practice of guelaguetza sometimes keeps track of things or work time shared. It is written in a book.

Example of elements pattern:

Objects in the Sky

Both the Polynesians and Mayans used objects in the sky. However, the Polynesians used the objects in the sky to navigate while the Mayans used objects in the sky to help them make decisions.

World ‘Ohana Circle Project

The world ‘ohana circle project may help students visualize the One World, One ‘Ohana concept.

Materials:

Construction Paper

Scissors

Pipe cleaners (2 per student)

Hole punch

Markers

Directions:

- 1 – Connect two pipe cleaners by twisting one set of ends together.
- 2 – Fold the paper (landscape orientation) in half. Draw four concentric circles (like a rainbow).
- 3 – Cut each circle out.
- 4 – Label smallest circle “Name of your town ‘Ohana.” For example, Pā‘iā ‘Ohana.
- 5 – Label the next larger circle “Name of your state ‘Ohana.” For example, Hawai‘i ‘Ohana.
- 6 – Label the next larger circle “Name of your country ‘Ohana.” For example, U.S. ‘Ohana.
- 7 – Label final circle World ‘Ohana.

At this point, the teacher explains how we are all connected and fit together as one ‘ohana. Teacher may visually represent this by showing/fitting the nested circles together.

- 8 – Punch a hole at the top of each circle and string the circles by size (i.e., smallest to largest).



Unit Final Reflection

Now that we've learned more about our world 'ohana and the many similarities between Hawai'i and Mexico, if you met someone from another country like Russia, do you think you would be more similar than different? What would you do to help you answer this question? How would you figure out the answer?

Ho'okahi Ao, Ho'okahi 'Ohana/Un Mundo, Una Familia/One World, One Family means ...

Culminating Project Guidelines

To close the unit, students may present the new information to another class. This may be conducted using a jigsaw format. Each group becomes “experts” in a given subject.

Group 1 – Landforms, Land Features, Natural Disasters

Group 2 – Myths

Group 3 – Use of Objects in the Sky

Group 4 – Using Nature to Meet Your Needs (Coconut Palm and Maguey)

Group 5 – ‘Ohana and Guelaguetza

Each group simultaneously presents while the visiting class circulates throughout each “expert group.”

To close the activity, teacher asks visiting students to share something new they learned.

Assessment for Lesson 7: Comparative Essay (From ReadWriteThink.org)

CATEGORY	Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Purpose & Supporting Details	The paper compares and contrasts items clearly. The paper points to specific examples to illustrate the comparison. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is general. The paper includes only the information relevant to the comparison.	The paper compares and contrasts items clearly, but the supporting information is incomplete. The paper may include information that is not relevant to the comparison.	The paper compares or contrasts, but does not include both. There is no supporting information or support is incomplete.
Organization & Structure	The paper breaks the information into whole-to-whole, similarities-to-differences, or point-by-point structure. It follows a consistent order when discussing the comparison.	The paper breaks the information into whole-to-whole, similarities-to-differences, or point-by-point structure but does not follow a consistent order when discussing the comparison.	The paper breaks the information into whole-to-whole, similarities-to-differences, or point-by-point structure, but some information is in the wrong section. Some details are not in a logical or expected order, and this distracts the reader.	Many details are not in a logical or expected order. There is little sense that the writing is organized.
Transitions	The paper moves smoothly from one idea to the next. The paper uses comparison and contrast transition words to show relationships between ideas. The paper uses a variety of sentence structures and transitions.	The paper moves from one idea to the next, but there is little variety. The paper uses comparison and contrast transition words to show relationships between ideas.	Some transitions work well; but connections between other ideas are fuzzy.	The transitions between ideas are unclear or nonexistent.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1–2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3–4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content.

Assessment for Lesson 7: Group Presentation (to be completed for each group) – From Rubistar

CATEGORY	Exceeds Proficiency (4)	Meets Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
Content	Shows a full understanding of the topic.	Shows a good understanding of the topic.	Shows a good understanding of parts of the topic.	Does not seem to understand the topic very well.
Volume	Volume is loud enough to be heard by all audience members throughout the presentation.	Volume is loud enough to be heard by all audience members at least 90% of the time.	Volume is loud enough to be heard by all audience members at least 80% of the time.	Volume often too soft to be heard by all audience members.
Posture and Eye Contact	Stands up straight, looks relaxed and confident. Establishes eye contact with audience.	Stands up straight and establishes eye contact with everyone in the audience during the presentation.	Sometimes stands up straight and establishes eye contact.	Slouches and/or does not look at people during the presentation.
Speaks Clearly	Speaks clearly and distinctly all (100–95%) the time, and mispronounces no words.	Speaks clearly and distinctly all (100–95%) the time, but mispronounces one word.	Speaks clearly and distinctly most (94–85%) of the time. Mispronounces no more than one word.	Often mumbles or can not be understood OR mispronounces more than one word.
Enthusiasm	Facial expressions and body language generate a strong interest and enthusiasm about the topic in others.	Facial expressions and body language sometimes generate a strong interest and enthusiasm about the topic in others.	Facial expressions and body language are used to try to generate enthusiasm, but seem somewhat faked.	Very little use of facial expressions or body language. Did not generate much interest in topic being presented.
Collaboration with Peers	Almost always listens to, shares with, and supports the efforts of others in the group. Tries to keep people working well together.	Usually listens to, shares with, and supports the efforts of others in the group. Does not cause "waves" in the group.	Often listens to, shares with, and supports the efforts of others in the group but sometimes is not a good team member.	Rarely listens to, shares with, and supports the efforts of others in the group. Often is not a good team member.
Uses Complete Sentences	Always (99–100% of time) speaks in complete sentences. Always uses acceptable school English.	Mostly (80–98%) speaks in complete sentences. Mostly uses acceptable school English.	Sometimes (70–80%) speaks in complete sentences. Sometimes uses acceptable school English.	Rarely speaks in complete sentences.

http://rubistar.4teachers.org/index.php?screen=ShowRubric&module=Rubistar&rubric_id=1417749&

Assessment for Lesson 7: Unit Final Reflection

Exceeds Proficiency (4)	Meets with Proficiency (3)	Developing Proficiency (2)	Well Below Proficiency (1)
<p>Student recognizes when faced with a new people and culture, s/he must use critical thinking skills to recognize the similarities and differences between us.</p> <p>Student recognizes that people from other countries and cultures may appear to be greatly different from ourselves but delving deeper into another culture may reveal more similarities than differences. Despite superficial differences, we are one world and one family. We are one 'ohana.</p>	<p>Student recognizes that people from other countries and cultures may appear to be greatly different from ourselves but delving deeper into another culture may reveal more similarities than differences. Despite superficial differences, we are one world and one family. We are one 'ohana.</p>	<p>Student recognizes there are many more similarities than differences in people of the world. We are one 'ohana.</p>	<p>Student recognizes more differences than similarities in people based on superficial information (e.g., appearances, food choices, etc.).</p>