



GeoCivics Lesson: *Modern vs. traditional Chamorro/Guamanian diet*
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Teacher(s): T. Terlaje	Unit Title: Oceania Lesson Title: Modern vs. traditional Chamorro / Guamanian diet	Grade Level: 6-8
Notes: N/A		
Pre-existing Knowledge: Students should know what a diet is and be able to describe their personal diet habits.		
<p>Overview of Content: “Rates of obesity and chronic diseases such as type 2 diabetes, hypertension, cardiovascular disease, stroke, and cancer, continue to increase in the United States and other Westernized countries. Similar patterns are evident on Guam, a U.S. Territory in the Pacific. In 2003, 41.9% of adults in Guam were ‘normal weight’, while the rest were overweight (36.2%) or obese (21.9%); compared to the 2004 U. S. rates where 33.7% were normal weight and the rest were overweight (34.1%) or obese (32.2%). About 60% of deaths on Guam are caused by chronic diseases that are linked to poor diet and lifestyle patterns.</p> <p>The diet of early Chamorros, or natives of Guam and the Northern Marianas Islands, was predominantly plant based and included taro, yams, breadfruit, bananas, cassava, coconut, and fish. However, after World War II the Chamorro diet began to shift from locally grown foods to imported rice and highly processed canned goods, such as Spam®, corned beef, and Vienna sausage. The most recent dietary assessments of adults on Guam were conducted more than 20 years ago. Since then, population dynamics have changed. The current population of Guam is characterized by substantial ethnic variation: 42.1% Chamorro, 33.3% Filipino, 6.8% Caucasian, 6.2% Asian, 7.6% other Pacific Islanders. An updated dietary assessment reflecting at least some of this diversity was needed. Therefore, we conducted a survey of adults from the two largest ethnic populations in Guam. The objectives of this study were to: (1) compare the dietary intakes of Chamorro and Filipino adults; and (2) assess the relationship between energy density (ED) and weight status.” -- <i>National Library of Medicine</i></p>		

Purpose: *What will students learn?*

Students will learn what factors (colonization, economy-imports/exports, militarization) impact their diet and why modern foods and drinks like spam, king car, ichiban, takis, etc. are so popular on Guam.

National & State Social Studies Standard(s):

National

- **TIME, CONTINUITY, AND CHANGE** - Studying the past makes it possible for us to understand the human story across time.
- **PEOPLE, PLACES, AND ENVIRONMENTS** - During their studies, learners develop an understanding of spatial perspectives, and examine changes in the relationship between peoples, places and environments.

Guam

Standard 1 - Culture & History:

- 7.1.1 Explain the significance of individuals or groups from selected societies, past and present.
- AG.1.4 Describe an example of a government policy that has affected a particular racial, ethnic, or religious group
- 6.2.4 Identify multiple causes and effects when explaining historical events.
- 7.2.3 Describe characteristics of selected contemporary societies that resulted from historical events or factors, such as invasion, conquests, colonization, immigration, and trade.

National & State Geography Standard(s):

National

- Standard 4: The physical and human characteristics of places
- Standard 12: The processes, patterns, and functions of human settlement

Guam

- 6.3.1 Describe how the physical and cultural landscapes of the world influence the interpretation of the past

ELA Standards:

Reading Standards for Informational Text:

- Grade 6: Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Grade 7: Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Grade 8: Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.

ISTE Student Standards:

- N/A

Language Functions:

- **Inquiry/Seeking Information:** Students use language to observe and explore the environment, acquire information, inquire.
- **Summarizing and Informing:** Students use language to identify, report or describe information.
- **Comparing and Contrasting:** Students use language to describe similarities and differences in objects or ideas.

Culturally Responsive Lesson Strategies:

- **VOICE** - Lesson/Assignment allows **places for students to work together cooperatively or share** their learning experiences, strengths, backgrounds, interests, and needs with the instructor and each other.
- **CONNECTION** - Lesson/Activity incorporates real-life connections and representations from various cultures and life experiences.
- **HIGHER ORDER THINKING** - Lesson/Assignment provides avenues for students to engage in higher cognitive processing, applying learning to big-picture analysis and creative applications for learning.

Objective(s):**Students will be able to:**

- Describe the original diet of the CHamoru and what event(s) caused their diet to change
- Describe the health impacts of Guam's traditional vs. current diet
- Compare modern diets to traditional diets on Guam, and analyze their individual diets to make a step by step plan to eat more healthfully.

SIOP

	SIOP Elements	
Preparation	Scaffolding	Grouping Option
Adapting content	Modeling	Whole class
Linking to background	Guided practice	Small groups
Linking to past learning	Independent practice	Partners
Strategies used	Comprehensible input	Independent
Integrating Processes	Application	Assessment
Reading	Hands-On	Individual
Writing	Meaningful	Group
Speaking	Linked to objectives	Written
Listening	Promotes engagement	Oral

Evidence of Mastery

Formative - Students will draw “fiesta plates” exhibiting the current, average meal that best describes their diet and will share their fiesta plates with the class and will engage in a discussion about the differences and similarities in student plates and talk about how these foods represent their culture. The teacher will make note of the students’ presentations for use as formative assessment.

Summative -students will create a **second fiesta plate** incorporating a balanced diet of both modern and traditional foods and analyze whether they think these changes are better or worse, and provide evidence to support their claims. Teacher will use the 2nd Fiesta Plate Rubric below to assess student learning. A score of 3 or higher will show mastery.

2nd Fiesta Plate Rubric

Exceeds Expectations	Student will be able to draw and label an excellent representation of a balanced meal consisting of both modern and traditional foods, be able to explain why the diet evolved, and analyze if the diet changes are better or worse providing evidence of current health and economic issues and personal experience etc.	4.0
Meets Expectations	Student will be able to draw and/or label a fair representation of a balanced meal consisting of both modern and traditional foods and explain and show their understanding of why the diet evolved and if it’s better or worse for them or their family and/or community, providing some examples supporting their opinion.	3.0
Approaches Expectations	Student will be able to draw and/or label a fair representation of a balanced meal consisting of some modern and traditional foods and explain and show somewhat understanding of why diets evolve and decide whether it’s better or worse with some reasoning.	2.0
Fails to Meet Expectations	Students gave poor representation of a balanced meal consisting of minimal to no modern and traditional foods and explained and showed minimal to no understanding of why diets evolve and can’t provide a decision or reasoning as to whether it’s better or worse.	0-1.0

Key vocabulary:

- **Fiesta:** a large feast, festival, or very extravagant party.
- **Diet:** A diet is the combination of foods typically eaten by a specific group of people or other organisms. Human diets are determined by nutritional needs, the types of food available in a particular region, and cultural beliefs.
- **Traditional Chamoru diet:** As people of the islands, the Chamoru diet traditionally was rich in fruits, tubers (roots) and foods from the surrounding lagoons, reefs and oceans.
- **Guam Festivals:** Modern food events such as fiestas, church gatherings, or other social events may consist of calorie-dense, processed foods. While many foods associated with celebrations are high in calories, they do not provide many necessary nutrients, vitamins and minerals. In addition, the modernized cultural components of food events may promote an increase in the amount of food being consumed during food events. For example, a modern fiesta in Guam may have up to 34 different dishes with more than 100,000 calories available for consumption (Figure 1).
- **Jones Act:** The Jones Act, also known as the Merchant Marine Act of 1920, is a federal statute establishing support for the development and maintenance of a merchant marine in order to support commercial activity and serve as a naval auxiliary in times of war or national emergency (see 46 USC § 50101).
- **Export:** Export refers to a product or service produced in one country but sold to a buyer abroad. Exports are one of the oldest forms of economic transfer and occur on a large scale between nations.
- **Import:** An import is a good or service bought in one country that was produced in another. Imports and exports are the components of international trade. If the value of a country's imports exceeds the value of its exports, the

Materials:

- Blank sheets of paper for student drawing
- Drawing materials-crayons, colored pencils, etc.
- Computer access to videos/online articles
- Projection device
- spam (and/or other common foods)
- Video: *Why SPAM is so Popular in Guam* (0.18 min.) (Link in Sources below)
- Article: *Ancient Chamoru Food and Diet:* (Link in Sources below)
- Article: *Health Consequences of Modern Diets on Guam - Our Food Choices:* (Link in Sources below)
- Student access to laptops/computers for conducting research
- Websites for students to conduct research (see Links in Sources below)
- Speaker for use in giving presentations

country has a negative balance of trade, also known as a trade deficit.

- **Colonization:** the act of taking control of an area or a country that is not your own, especially using force, and sending people from your own country to live there.
- **Sodium:** a chemical element; it has symbol Na (from Neo-Latin natrium) and atomic number 11
- **Sustainable:** meeting the needs of the present without compromising the ability of future generations

Sources:

- Video: *Why SPAM is so Popular in Guam* - [spam youtube video](#)
- Article: *Ancient Chamoru Food and Diet*:
<https://www.guampedia.com/ancient-chamorro-food-and-diet/>
- Article: *Health Consequences of Modern Diets on Guam - Our Food Choices*:
<https://www.guampedia.com/health-consequences-of-modern-diets-on-guam/>

Websites for students to conduct research:

- Article: *How the US Ended up with Guam*:
<https://www.history.com/news/how-the-united-states-ended-up-with-guam>
- Article: *A Brief, 500-Year History of Guam*:
[A Brief, 500-Year History of Guam | At the Smithsonian](#)
- Article: *Maritime Administration*:
<https://www.maritime.dot.gov/ports/domestic-shipping/domestic-shipping#act>
- Video: *Island of Warriors*: - use QR code below to watch on the DOT Maritime Administration site:



Engage

Teacher Will:

(NOTE) Strategically group students to provide language and/or learning support for ELLs/SPED/ Gifted students as needed.

1. Share with students that you are hungry and skipped breakfast or lunch and am not sure what you want to eat, and ask, “Do you have any suggestions?”

Students Will:

1. Students share out their meal suggestions to teacher.
- (Grouping; Whole class) (Integrating Processes: Listening/Speaking)**


<ol style="list-style-type: none"> 2. Teacher introduces the 'fiesta' vocab term to students and discusses what it means to residents of Guam. 3. Pass out paper and drawing materials to students and ask them to create a "fiesta plate" showing the common delicious foods they see at breakfast/lunch (depending on time). Have them imagine they are having a feast at home and are eating their favorite breakfast or lunch foods. Give students 5 minutes to draw and label their plates. Use countdown so students are aware of the time remaining. 4. After reviewing fiesta plates, ask students if they believe their plate represents what most kids eat for breakfast and lunch. If they agree, ask them if they believe their diet has a direct impact on their health. Have students elaborate on responses. 5. Direct students to review health information regarding the current Guam diet as they read with their partners the article: Health Consequences of Modern Diet on Guam-Health implications of Guam's 'modern' diet. 6. Then have students do a think/pair/share answering and discussing the ways food affects our health. Ask: <i>What can happen to our bodies/health if we eat poor quality foods every day or every meal?</i> 7. Conduct think pair share and have a few students share their answers to the question: <i>If we know this isn't healthy, why do we eat like this?</i> Refer to spam youtube video. <p>(NOTE) SPED modification: the teacher will use a tablet/laptop and/or pictures of foods to help students pick their favorite foods.</p>	<ol style="list-style-type: none"> 2. Reflect on the meaning of the word 'fiesta' and what they understand about it. (Preparation: Linking to past learning) 3. Students will individually create their fiesta plate according to instructions by drawing a plate showing their favorite breakfast or lunch foods. (Grouping: Independent) (Application: Hands-on/Promotes engagement) 4. Conduct think/pair/share with their elbow partner and share their thoughts about how food impacts our health and what are the health implications if we continue eating these foods. (Grouping: Partners/Whole class)b(Integrating Processes: Listening/Speaking) (Application: Meaningful/Promotes engagement) 5. Read with their partners the article <i>Health Consequences of Modern Diet on Guam</i> and discuss and review the health information regarding the current Guam diet. (Grouping: Partners) (Integrating Processes: Reading/Listening/Speaking) 6. Conduct a think/pair/share with their partners and share out their response to the ways food affects our health and answer the teacher's question. (Preparation: Linking to Background/Linking to past learning) (Grouping: Partners/Whole class) (Integrating Processes: Listening/Speaking) 7. Students discuss with their partner the possible health impacts of the current Guam diet learned in the reading. (Preparation: Linking to Background) (Grouping: Partners/Whole class) (Application: Meaningful/Promotes engagement)
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Explore

<p>Teacher Will:</p> <p>IQ #1: <i>What is the importance of food in shaping culture? Does culture change when a diet changes?</i></p> <ol style="list-style-type: none"> 1. Present Inquiry Question #1 to the class, and have students watch the video: <i>Why SPAM is so Popular in Guam</i> spam youtube video. and take notes on important points learned. Then review the components of the video with the class. 2. Have students read the article: <i>Ancient Chamoru Food and Diet</i>: https://www.guampedia.com/ancient-chamorro-food-and-diet/ and record information of what foods were originally eaten, and the cultural ties the Guam people had with their original diet. 3. Ask students if they think the original Guam diet was healthy. Why or why not? Ask students what caused the people of Guam to drastically change their diet. <i>How did food help shape their culture? What is the rate of diabetes on Guam compared to mainland US? What is the importance of food in shaping culture?</i> 	<p>Students Will:</p> <ol style="list-style-type: none"> 1. Reflect on Inquiry question #1 presented by the teacher and watch the Why SPAM video taking notes on things they feel are key points learned, and engage in a class discussion of the video and key points learned. <p>(Grouping: Whole class) (Integrating Processes: Listening/Writing)</p> <ol style="list-style-type: none"> 2. Students will then read the web page on ancient Chamorro foods and take notes. <p>(Grouping: Whole class/Individual) (Integrating Processes: Reading/Writing)</p> <ol style="list-style-type: none"> 3. Students participate in classroom discussion, of the article, responding to the teacher’s prompts. <p>(Grouping: Whole class) (Application: Meaningful/Promotes engagement)</p>
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Explain

<p>Teacher Will:</p> <ol style="list-style-type: none"> 1. Using what was learned in Explore, students will draw another “fiesta plate,” this time detailing <i>the current, average meal that best describes their diet</i>. 2. Have students share their fiesta plates with the class and the teacher will facilitate a whole group discussion about the differences and similarities in student plates, asking “<i>Do these foods represent your culture? If so, how?</i>” The teacher will make note of each students’ presentation and discussion for use as a formative assessment of student learning. 	<p>Students Will:</p> <ol style="list-style-type: none"> 1. Students create fiesta plates which demonstrate the average meal/diet they have at home. <p>(Preparation: Linking to Background)</p> <ol style="list-style-type: none"> 2. Students share their Fiesta plates with class, and identify any common foods included in other students’ presentations, and reflect on how the foods represent their culture. Students will then participate in a whole group conversation about the differences and similarities in student plates and how these represent their culture. <p>(Grouping: Independent/whole class) (Assessment: Individual/Oral)</p>
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Elaborate	
<p>Teacher Will:</p> <p>IQ #2: <i>What events occurred that changed the historic, traditional diet of Guam, and in what ways? How did the Jones Act impact the diet of Guam?</i></p> <ol style="list-style-type: none"> 1. Introduce and discuss Inquiry Questions #2 with the class, asking questions to engage students in reflecting on and discussing historical aspects of Guam and how these may have impacted the traditional diet of Guam. 2. Have students conduct research on Inquiry Questions #2 using the following sites, to read articles and watch the video: <i>Have students take notes as they view each site:</i> <ol style="list-style-type: none"> a. https://www.history.com/news/how-the- united-states-ended-up-with-guam b. https://www.smithsonianmag.com/smithsonian-institution/brief-500-year-history-guam-180964508/ c. https://www.maritime.dot.gov/ports/domestic-shipping/domestic-shipping#act d. Video- Island of Warriors: - use QR code to watch on the DOT Maritime Administration site: <div style="text-align: center;">  </div> <p>(NOTE:) The teacher will strategically group ELLs/SPED and Gifted students as needed to provide any language and learning support needed to conduct their research. The teacher will also work with, model, and guide students in conducting their research and taking notes to provide support when needed. (Scaffolding: Modeling/Guided Practice)</p>	<p>Students Will:</p> <ol style="list-style-type: none"> 1. Discuss with the class Inquiry Question #2 and any questions asked by the teacher. (Preparation: Linking to past learning) (Grouping: Whole class) (Integrating Processes: Listening/ Speaking) 2. Students research the inquiry questions by reading the articles on the web sites provided and watching the video. Students will keep Inquiry Questions #2 in mind and take notes as they conduct their research. (Grouping: Independent or Partners) (Integrating Processes: Reading/Writing/Speaking/Listening) (Application: Hands-on/Meaningful/Promotes engagement/ Linked to Objectives)

Evaluate	
<p>Teacher Will:</p> <ol style="list-style-type: none"> 1. Using their notes and their learning from research conducted in this lesson, students 	<p>Student Will:</p> <ol style="list-style-type: none"> 1. Using notes and their learning from their research conducted in this lesson, students

will now create a **second fiesta plate** incorporating **both modern and traditional foods**. Students will be told to draw and label an excellent representation of a balanced meal consisting of both modern and traditional foods, and will be shown the 2nd Fiesta Plate Rubric to know what characteristics to include in their presentation of their plate. They will be told that they must be able to explain why/how the diet evolved, and analyze and explain if the diet changes are better or worse by providing evidence of current health and economic issues and personal experience, etc.

2. After creating their 2nd fiesta plate, the students will share their fiesta plate with the class and explain how the diet has evolved and how the diet changes are better or worse by providing evidence of current health and economic issues and their own personal experiences. After their presentations, the teacher will engage the students in a whole group discussion of their learning. The teacher will then use the 2nd Fiesta Plate Rubric to assess students' plate and presentation with a score of 3 or higher indicating mastery.

will create a **second fiesta plate** incorporating a *balanced diet of both modern and traditional foods*. Students prepare for presenting their fiesta plates by analyzing whether they think these changes are better or worse and reflect on and gather evidence to support their claims. Students will also use the 2nd Fiesta Plate Rubric as a guide in creating their plates and preparing to present their plates to the class.

(Grouping: Independent) (Integrating Processes: Listening/Speaking/Reading/Writing) (Application: Hands-on/Meaningful/Promotes engagement) (Linked to Objectives)

2. Students share their second fiesta plate with the class and participate in whole group discussion.

(Assessment: Individual/Written/Oral)

Extensions:

- Students can be given opportunities to share their Fiesta Plates with other students at the school, at home, and in their community.
- They can also be given an opportunity to conduct further research by exploring the National Library of Medicine to learn about national health issues and to connect these to what they have learned through their current research.
- They can be asked to reflect on their own daily diet and how they can use what they have learned to improve their health in the future.