FOOD AS A LENS TO UNDERSTANDING CULTURE AND CULTURAL VALUES IN HAWAI‘I AND OTHER COUNTRIES

BY JENNIFER SEKI

How do people in different countries and cultures view and value food in their daily lives and how does this reflect their culture?

MIDDLE SCHOOL SEVENTH GRADE

TIMEFRAME FIVE 45-MINUTE CLASS PERIODS

NEW GENERATION SCIENCE STANDARDS (NGSS)
MS-PS1-2: Analyze and interpret data to determine similarities and differences in findings.
MS-PS1-3: The uses of technologies and any limitations on their use are driven by individual or societal needs, desires, and values; by the findings of scientific research; and by differences in such factors as climate, natural resources, and economic conditions. Thus technology use varies from region to region and over time.

COMMON CORE STATE STANDARDS (CCSS)
7.EE.3 - Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations as strategies to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
7.W.1 - Write arguments to support claims with clear reasons and relevant evidence.
7.SL.4 - Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.

NĀ HONUA MAULI OLA (NHMO)
‘Ike Mauli Lāhui – Cultural Identity Pathway
- We envision generations who walk into the future with confidence in their cultural identity and a commitment of service to akua, ʻāina, and each other.
- Perpetuating Native Hawaiian cultural identity through practices that strengthen knowledge of language, culture, and genealogical connections to akua, ʻāina, and kanaka.

‘Ike Naʻauao – Intellectual Pathway
- We envision generations fostering the cycle of joyous learning through curiosity, inquiry, experience, and mentorship.
- Fostering lifelong learning, curiosity, and inquiry to nurture the innate desire to share knowledge and wisdom with others.

‘Ike Honua – Sense of Place Pathway
- We envision generations who accept kuleana for our honua.
- Demonstrating a strong sense of place, including a commitment to preserve the delicate balance of life and protect it for generations to come.
ENDURING UNDERSTANDING
- People have different ethnic and cultural backgrounds which is often reflected in the foods they eat at home.
- The food people eat both at home and outside of home reflects the cultures of the place (country, town, community) in which they live.
- People in the United States eat a wide variety of foods from many different cultures due to the diversity of ethnic backgrounds.
- People in other countries may think about food differently than we do and these differences may be rooted in their culture.

CRITICAL SKILLS AND CONCEPTS:
- Students will list the foods they eat at home with their family and with friends to compare to other students in class and in other countries.
- Students will have an understanding of some of the different ways that people of different cultures value food and its sources.
- Students will be able to describe the similarities and differences between food production and consumption in Hawai’i and the U.S. compared to that of other countries.

AUTHENTIC PERFORMANCE TASK:
- Students will write letters to students at another school (preferably in a different country) and share about their daily lives including what they eat and where their food comes from.
- Students will create an infographic using the online application Piktochart (2015) illustrating their family tree including ethnicities of family members.
- Students will show their ethnic background using a pie chart to show proportions of each ethnicity.
- Students will include the foods they eat at home and outside of home and the countries of origin of those foods on a map in their infographic.
## RUBRIC FOR FAMILY FOOD TREE

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
<th>Description</th>
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| Overall Presentation | 5      | - Infographic is visually balanced so that the information is distributed over the entire page and is easily read onscreen or when printed  
- [Name]'s Family Food Tree is clearly separated as the title in large text at the top of the page  
- Infographic is downloaded as a JPEG and renamed Last First Family Food Tree and placed in Science Google folder  
- *Screenshots of missing parts of family food trees are named Last First Family Food Tree Screenshot# and placed in Science Google folder |
| Family Tree | 5      | - Family tree includes given names of all family members through at least three generations (student and siblings, parents, grandparents)  
- Correct shapes are used (circles for females, squares for males)  
- Links are used correctly between family members  
- Colors assigned to shapes clearly define a particular trait (gender, ethnicity, etc.)  
- Family tree includes ethnicities for each subfamily |
| Ethnicity Pie Chart | 5      | - Graph tool used to create pie chart  
- Pie chart accurately depicts the percentage of each ethnicity, adding up to 100%  
- Names of ethnicities are included near pie chart  
- Pie chart colors match those assigned to countries on a world map shown on Infographic |
| Food photos | 5      | - Photos of foods eaten at home, with family, and with friends are clearly separated  
- Photos include a label with the name of the food  
- Photos are placed near a flag or on a map showing their country of origin  
- Minimum of 15 foods are included  
- Minimum of three countries of origin are included |

## AUTHENTIC AUDIENCE:

**University Laboratory School (ULS)**

- A public charter school that operates in partnership with the Curriculum Research & Development Group (CRDG), a research unit within the College of Education at the University of Hawai'i
- Serves as an experimental site for researching and developing innovations in teaching, learning, and assessment in grades K-12 while providing a high quality education for all its students
- CRDG-ULS developed programs demonstrated at ULS are used in over 40 states and 10 foreign countries
- ULS students represent a socio-economic, intellectual, and ethnic cross-section of the public school population of the State of Hawai'i as part of the research design of the school
- Students take the same strong academic program in heterogeneous classes with heavy focus on content, inquiry, reflection, laboratory work, problem solving, written and verbal expression, publication and presentation

**ULS 7th grade class**

- 53 students (equal numbers of boys and girls)
- Ethnicities represented by members of this class:
  - Indian, Chinese, Filipino, English, Irish, German, Scottish, French, Japanese, Hawaiian, Mexican, Tongan, Native American, Puerto Rican, Italian, Korean, Swedish, Okinawan, Samoan, Micronesian, Punjabi Sikh, Papua New Guinean, North African, Russian, Dutch, Hispanic
  - Number that claim to be 100% one ethnicity: 7
- 1:1 laptop program allows students access to a computer and the internet daily at school and at home
- Enjoy hands-on activities including laboratory investigations
- Reading *The Omnivore's Dilemma* in English class while growing corn and studying cycles of biomass and trophic relationships in science
Students will share about their culture and food values with students in another country. Students will share what they have learned about food in another culture with parents, relatives, and friends.

OTHER EVIDENCE:
Students will exchange letters with students in other countries to communicate about their personal and local food culture and learn about the food culture and other cultural practices of these students.

LEARNING PLAN

FAMILY FOOD TREE INFOGRAPHIC

DAY 1: LIST FOODS EATEN AT HOME, OUTSIDE OF HOME, AND AT SCHOOL

1. Ask students to think about the foods that they eat at home for breakfast, lunch, dinner, snacks, etc. and write them down in a list, one food per line in one column, leaving space on the right.

2. Give students time to make their lists as you make a list on the board and walk around to help students who cannot think of anything to list.

3. After students have written at least 20 words each (a few minutes), ask them to go down their list and identify how the foods were made and to mark them in a second column to the right as follows:
   a. Foods that were prepared or cooked by them or someone in their family = “C” for “cooked”
   b. Foods that were purchased from a food store such as a supermarket as is and heated up or served to eat = “P” for “prepared”
   c. Foods that were purchased from a fast food restaurant read to eat = “R” = restaurant

4. Give students time to work on this and walk around to help them categorize their foods.

5. Next have students identify what the country of origin of their foods is and label accordingly in a third column to the right.
   a. Students should be given access to laptop computers with internet access if possible as many foods are difficult to assign due to the complex historical origins of foods such as “french fries” which originated in Belgium and the first chocolate bar which was made in England.
   b. If access is not possible at school, you may take requests from the class and look up foods in real-time for them (many will have overlaps) or you can assign this part as homework.

6. If there is still time, tell students to add foods that they eat outside of home with family or other people (at restaurants, etc.) and also what they eat with their friends (at school or elsewhere) for homework.

Optional Extension: Have students make a food log to keep track of what they eat for a week and then calculate the number of kilocalories (Calories) eaten per day and examine what types of biomass they are consuming.

Use the United States Department of Agriculture’s National Nutrient Database at <http://ndb.nal.usda.gov/ndb/search> to calculate look up the nutritional information for the foods that they ate.
DAY TWO - THREE: FAMILY FOOD TREE
1. Have students draw a family tree starting with themselves at the bottom of the page while you draw your family tree on the board as an example.
   a. If you would like students to do this electronically, Family Echo by Familiality (<http://www.familyecho.com/>) is an easy to use website that does not require a subscription but does require a login to save your tree.
   b. Conventionally male family members are placed in squares and female family members are placed in circles. Have students write their name and enclose it in the appropriate shape.
   c. Next, they can add their siblings in order of age from left to right.
   d. Tell them to draw a short vertical line straight up from each child in their family including themselves and to connect these with a horizontal line. This is a good place to review the terms “perpendicular” and “parallel.”
   e. From that horizontal line, they should draw a slightly longer vertical line perpendicular to it, then make a “T” at the top of this line that they will connect their parents to and write their parents first names in.
f. Next, have students add their grandparents for each side. They may need to ask at home to find out first names so this can be finished for homework. Encourage students to add their parents’ siblings but tell them that uncles and aunties and cousins are not required and may make their family tree too cluttered so this should be saved for a more advanced family tree.

g. Twins, and extended families including divorced on non-married family members can be tricky. The National Human Genome Research Institute has a nice step-by-step PDF that guides users through creating a family tree.

h. If students finish early, they should work on their homework to find photos of the foods they listed the day before and save them in folder on their desktop for tomorrow.

**DAY FOUR AND FIVE: INFOGRAPHICS**

1. Introduce infographics by showing students several different infographics for different purposes.
2. Open Piktochart (2015) so that students can see the site and play the introductory video “Learn How to Use Piktochart in 2 minutes”
3. Have students start up Piktochart and login using their Google login if they have one. If not, they should create a login and password.
4. Students can use a free theme or start from scratch.
5. NOTE: If you would like their infographics to print using a full 8.5 inch by 11 inch sheet of paper, they should only use two blocks and not resize them by stretching them downward.
6. Tell students to add this title at the topic of their infographic “My name’s Family Food Tree.”
7. Allow students to explore the Piktochart functions and create their family tree that they previously drew by hand in their infographic. They should choose a color scheme and make sure that the text is large enough to read (10 pt).
8. Once students have completed their family tree, they should label their family names and ethnicities near the members of the tree.
9. Ask students to volunteer to share their ethnicities with the class. Help students to understand that your ethnicity has to be a fraction of 100% and that with each generation you get half of each parent’s contribution. For example if your dad was full Japanese and your mom was full Chinese you would be 50% Japanese and 50% Chinese.

a. Other common misconceptions are: American is an ethnicity. Make sure they understand that we are looking at country of origin.

10. Have students open the “Charts” tool on Piktochart under “Tools” and open pie chart. Show them how to construct a pie chart for their ethnicities by typing in the ethnicity and numbers that add up to 100. When they are finished, they can change the colors to match their theme insert this by their family tree.

11. Have students open the “Maps” tool and open a world map. Show them how to color the countries the same as their ethnicities and have them insert this map by their family tree.

*This is a good stopping point if students will need two days for their infographic. Have students work on their family tree and ethnicity graphics for homework and remind them to search for their foods.

12. Show students that there are many food graphics already in Piktochart that they can use in place of the foods they searched for if they run out of space to upload (limit is 20 images).

13. Have students add the foods they eat with the names of the foods in text boxes and the country of origin of each food to the next block of their infographic. They can do this in numerous ways.

a. Add the foods in groups by country of origin and put country flags near the foods.

b. Add the foods to a map that has countries highlighted in different colors.

14. Students will likely need at least half a class period to work on this and should finish for homework.

15. Have students share their Family Food Tree infographics with their classmates and with students in other classes, schools, states, or countries so that they can compare the foods that are eaten.

**Optional Extension:** Collaboration with students in another country (Papua New Guinea)

16. Have students will research Papua New Guinea to learn more about that culture and people. You may give them a list of information and photos to look for and have them work independently or in groups.

a. Possible topics
   - Location (Latitude, Longitude)
   - Distance from Hawai’i
   - How many islands are there?
   - Land area (square km)
   - Native people’s ethnicity
   - Languages spoken
   - Main food crops
   - Main animals raised for food
   - Animals raised as pets
   - Plants that commonly grow there
   - Invasive plants
   - Invasive species
   - Transportation
   - Subjects studied in school
   - Careers
   - What is an average home like?
   - Access to the internet
   - Electricity
   - How is food stored?
   - What do they import?
   - What do they export?

17. Have students write letters to students at another school that introduce themselves, share information about their families, daily life, etc. and ask any questions about things they would like to know about their pen pals.

a. We are focusing on food and culture, so they should ask about what types of crops are grown, who grows them, what is done with food waste, etc.
REFERENCES:


