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Unit Plan: Global Food Production featuring Case Studies from India

Fulbright-Hays Study Tour of India, July 2022.

Scope:

Food is said to be the way to one's heart, but for teachers food can be a way to our student's minds. This unit plan features several lessons designed for a food unit in a Current Global Issues course or in a World History course, but segments can be adapted as stand-alone lessons. Topics covered in this interdisciplinary lesson include: globalization, multinational corporations, the Green Revolution, changes in diet and lifestyle disease post-WWII, diasporic communities and the environmental movement. Instructors may choose to use this entire unit plan or pick selected activities or resources. The food project at the end of the unit adapts well to students of all abilities and often becomes a student favorite. *Estimated time: 8 Class Periods*

Essential Unit Questions:

- How does food production and consumption in India reflect global trends?
- How has South Asian migration to the United States contributed to American food culture?
- To what extent has the Green Revolution solved global food security issues?
- In what ways does food production become a human rights issue? Environmental issue?
- What are the controversial issues surrounding food and food production?
- What are possible solutions to the problems created by modern food production?

Students Will Be Able To

Identify where various foods are produced in India and/or the globe by working with maps.

Explain how the Green Revolution changed agricultural practices.

Assess the impact of the Green Revolution on farmers and the environment by using India as a case study.

Describe controversial issues surrounding food production including but not limited to: the problems of chemical fertilizers and pesticides; modern day slavery; environmental degradation.

Prepare and consume food while gaining an understanding of issues surrounding food production.

Enduring Understandings:

Food production and consumption have changed drastically in the last century and can vary greatly depending on local culture.

Food production and consumption affect a wide variety of global issues including: health, the environment, human rights, animal welfare.

There are differing opinions on the best ways to feed a growing population while sustaining the environment.

Lesson and Teacher Resources:

1. One or more menus from local Indian restaurants with copies for each student.
2. Map of India with regional state names copied for each student.
Sample: <https://www.mapsofindia.com/>
3. "Food Crops Maps of India" website:
<https://www.mapsofindia.com/indiaagriculture/foodcrops.htm>
4. "Indian Cuisine Map" <https://www.mapsofindia.com/maps/india/indian-cuisine-map.html>
5. Laptops or smartphones for research.
6. Map of the World copied for each student (optional.)
7. Article: "Stealing Nature's Harvest" by Vandana Shiva from the book "Rethinking Globalization" edited by Bill Bigelow, 2002. This article introduces students to the Green Revolution and GMO's using Indian rice farming as an example.
8. *Cooked: Water* (2016) episode two; documentary available on Netflix.com. This documentary traces changes in the food industry post WWII and uses India as a case-study for resisting global changes to food culture and diet as pushed by multinational corporations.
9. *Toxification* (2020) documentary available for streaming on Amazon Prime video. This documentary uses Punjab, India as a case study to examine the human cost of the Green Revolution on Punjabi farmers. The first 15 minutes can be used as an introduction to the article "Stealing Nature's Harvest" OR can be screened in its entirety.
Note: The episode discusses drug use and the suicide crises among Punjabi farmers, so consider the audience before screening.
10. Teacher Resource: "Stuffed and Starved: The Hidden Battle for the World Food System" 2012 book by Raj Patel.
11. *Rick Stein's India*, (2013) Documentary series available on Amazon Prime featuring a British chef's quest for the perfect curry as he eats his way around Indian regions.
12. *The Hundred Foot Journey* (2014) film directed by Lasse Hallstrom. An Indian family moves to France and opens a restaurant across from a traditional French restaurant, causing friction in the community. A good look at globalization and food.

Lesson Sequence and Procedures:

Day One:

1. Tell the class that they will begin a unit on global food production that uses several case studies from India as an introduction. Distribute menus or copies of menus from local Indian restaurants and a map of India to each student. Ask students to identify five menu items that they find interesting or might consider ordering. Using their laptops or phones, ask them to research what region of India their menu selections come from. (See "Indian Cuisine Map": <https://www.mapsofindia.com/maps/india/indian-cuisine-map.html>)
Create a key and illustrate where in India their selected menu items come from. (15-20 minutes) Ask students to consider the following:
 - a. What Indian regions are reflected in the menu?
 - b. What does this tell us about Indian/South Asian migration to the United States?

- i. Here, the instructor can share a brief history of South Asian migration to the United States. This can also become another mapping activity by asking students to map South Asian communities in the United States.
 - c. Consider inviting students to share their experience eating Indian food OR ask them what questions they may have about Indian food.
2. Show the first 15 minutes of *Toxification* so that students can become acquainted with some of the people and the land in India that they will read more about later. Ask them to consider the following: (30 minutes, film and discussion)
 - a. What is the Green Revolution?
 - b. What impact has the Green Revolution had on farming practices?
 - c. What is the human cost of the agricultural changes in Punjab, India?
 - d. How might Indian migration to the United States be connected to what we just learned from the documentary clip?
3. When the *Toxification* clip and discussion are over, give the students a blank map of India with the regional state names. Assign the following list of agricultural products to students and ask them to research and map out where in India they are grown on their map. Make a map key with symbols for each product. (15-20 minutes)

Products: Tea; coffee; rice, grains, corn, cotton, sugarcane, cacao, lemons.
(Instructor can choose to add more based on “Food Crops Maps of India” website: <https://www.mapsofindia.com/indiaagriculture/foodcrops.htm>)

Optional Extension:

4. Global Food Production. Distribute a map of the world and ask students to map out at least four agricultural products that are grown on each continent. Create a key for each product and either use color shading or symbols to map out where in the world each product is grown.

Note: I have used this as an introduction to global food production. This can be used in place or in conjunction with the mapping food in India activity.

Day Two:

5. Assign the article “Stealing Nature’s Harvest” for classwork or homework, as time allows. Depending on the reading level of the class the instructor could have students read and annotate the article and/or give a series of guided questions.
 - a. Instructor may use a group discussion worksheet like this and ask students to discuss the article in small groups:
<https://docs.google.com/document/d/1FjE8TotWRLt-vagYgSeGZfKZiZqvdYk3/edit>

Days Three and Four

6. Watch “Cooked: Water” on Netflix. I prefer to screen the episode in its entirety and stop to discuss segments. Ask students to consider:
 - a. How did the Green Revolution change global food production?

- b. What impact have multinational corporations had on how and what we eat?
- c. Describe how some people in India have reacted to global pressures to change food culture by returning to the local roots of Indian cooking.
- d. How can the food choices we make be an act of revolution?

Days Five-Seven

7. **End Assessment: Food Project.** (2-3 class periods, which includes class time for research and a class period for the luncheon.) Students choose one global issue regarding food production

Note: The food project on the following page has been adapted for use in World History and Current Global Issues courses. It primarily explores controversial food issues, but can be adapted to include global cultures.

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**Food Fight: Global Food Issues.
Project and Class Luncheon**

Did you know that baking your own bread from scratch, fermenting sauerkraut on your counter or making your favorite double-chocolate brownies can be a simple act of quiet defiance against the tyranny of multinational corporations, environmental degradation and the scourge of modern-day slavery? In this non-traditional project we will learn about current issues and controversies concerning food production and have the opportunity to relax and celebrate the end of the year by preparing and sharing a meal. Through this project you will have the chance to “take a stand” against a controversial issues related to global food production such as child labor, environmental damage and the health crisis of lifestyle diseases. Researching, preparing and eating food is an exciting and overlooked way to learn about culture, history and current events. Bon appetit!

Project timeline and description:

1. Watch and discuss the documentary, “Cooked: Water” (Episode 2- 1 hour.) This episode focuses on processed foods, the changes that have occurred in the food industry post-WWII and how people chose to make political and social statements by what they choose to eat or not eat. Topics included nutrition, multinational corporations and globalization. (See Unit Plan Part 6.)

Questions for discussion while viewing:

- 1) How has the food industry changed since WWII?
 - 2) What impact have these changes had on what we eat? Health and nutrition?
 - 3) Identify current issues concerning food production and diet?
Green Revolution, GMO’s, sustainability, factory farms, globalization, animal rights, chemical pesticides
 - 4) Define “conscious consumption” and “ethical eating.” How are these ideas an attempt to change some of the problems created by capitalism from within the system?
 - 5) Why do some people consider eating as a counter-cultural or revolutionary act? Identify people who have used food to make a statement.
2. Students will research a food issue and recipe in class and then prepare a dish at home to bring in and share with the class. The instructor can choose to assign countries or regions to examine food issues from a multicultural perspective, but this is optional.

Students will

- 1) Find one article that focuses on one food issue we discussed in class. Read and summarize the article concisely. Cite the article name, source, author and date at the top of the page.

2) Find and print/reproduce one recipe that has one or more ingredients that highlights your chosen issue.

3) Write one paragraph that explains how their recipe or the ingredients related to the current food issue they researched.

Example: Chocolate and child slavery in West Africa

Organic Indian Basmati Rice

4) Students will bring in and share their food. I normally have students briefly present their issue in class and then we eat family-style.

Note: Since this particular unit has been designed with India as case studies, it would be useful to encourage at least one pair to bring in an Indian dish. Alternatively, the instructor could make or purchase food to bring in and share. I have found great satisfaction cooking for my students for this lesson.

Lesson Standards

- 6.1.2.Geo.SV.1: Use maps to identify physical features (e.g., continents, oceans, rivers, lakes, mountains).
- 6.1.2.Geo.SV.2: Describe how maps are created for a specific purpose (e.g., school fire-drill map, route from home to school, learning centers in a classroom).
- 6.1.2.Geo.HE.1: Explain how seasonal weather changes, climate, and other environmental characteristics affect people's lives in a place or region.
- 6.1.2.Geo.HE.2: Describe how human activities affect the culture and environmental characteristics of places or regions (e.g., transportation, housing, dietary needs).
- 6.1.2.EconGE.2: Explain why people in one country trade goods and services with people in other countries.
- 6.3.5.GeoGI.1: Use technology to collaborate with others who have different perspectives to examine global issues, including climate change and propose possible solutions.
- 6.3.5.EconET.1: Investigate an economic issue that impacts children and propose a solution.
- 6.1.5.GeoGI.4: Explain how cultural and environmental characteristics affect the distribution and movement of people, goods, and ideas.
- 6.3.2.GeoGI.1: Investigate a global issue such as climate change, its significance, and share information about how it impacts different regions around the world.
 - 6.3.2.GeoGI.2: Collect data and consider sources from multiple perspectives to become informed about an environmental issue and identify possible solutions.
- 6.2.12.GeoPP.6.a: Make evidence-based inferences to determine the global impact of increased population growth, migration, and changes in urban-rural populations on natural resources and land use.
- 6.2.12.CivicsHR.6.b: Make an evidence-based argument on the tensions between national sovereignty and global priorities regarding economic development and environmental sustainability and its impact on human rights.
- 6.2.12.EconET.3.a: Determine how, and the extent to which, scientific and technological changes, transportation, and new forms of energy brought about social, economic, and cultural changes in the world

Note: The instructor could also choose to support this lesson with ELA standards.

**World History/Current Global Issues
Food Project Rubric**

Name: _____

Category	Scoring Criteria
<p>A. Written Components (0-30 points)</p> <p>Printed project includes all required components, which have been neatly formatted and proofread.</p>	<p>___/10 Food article and summary.</p> <p>___/10 Printed Recipe with allergies listed</p> <p>___/10 Paragraph explaining how food/recipe connects to a global issue.</p> <p>Total: _____/30</p>
<p>B. Food and Recipe (25 Points)</p> <p>The student prepared and brought in a thoughtfully prepared dish that share with the students.</p> <p>(Note: This component may not be possible in some district and can be modified or edited out. If there are restrictions grading students for bringing in food this can be counted as extra credit or made voluntary)</p>	<p>25 Student brought in a prepared dish that reflects their chosen global issue to share with the class.</p>
<p>C. Connections to Global Food Production Issue (5-15 Points)</p> <p>The food prepared connects to a global issue, which has been adequate explained in the written submission.</p>	<p>5 Little to no connection to selected issues provided</p> <p>10 Strong connection to issues selected with supporting examples.</p> <p>15 Exceptionally strong connections to selected issue with superior supporting examples</p>
<p>D. Introductory Presentation before Meal (10-15 Points)</p> <p>Student thoughtfully introduces their food and explains how it connects to a global issue.</p>	<p>10 Student presented their food and global issues, but could have elaborated. May not be able to answer questions posed by classmates or the instructor.</p> <p>15 Student thoughtfully presented their food to the class and explained clearly how it connects to global issues. Students is able to answer questions with command</p>

Score: _____/85 points