Unit 8: Food and Waste

Content Area: **Global Studies**
Course(s): **Global Studies**
Time Period: **Week 28**
Length: **5 Weeks**
Status: **Published**

Unit Overview

In this unit, students will evaluate current food production, distribution, and waste habits around the world, assess current efforts to improve those habits, and create new solutions to the current problems

Standards

HE.K-12.2.1.C.b	How do you determine appropriate portion sizes?
HPE.2.1.8.B.1	Analyze how culture, health status, age, and eating environment influence personal eating patterns and recommend ways to provide nutritional balance.
SCI.7-8.5.4.8.G.2	Investigate a local or global environmental issue by defining the problem, researching possible causative factors, understanding the underlying science, and evaluating the benefits and risks of alternative solutions.
SCI.7-8.5.4.8.G.b	Investigations of environmental issues address underlying scientific causes and may inform possible solutions.
SOC.K-12.6.2.D.3	Protecting the common good may require sacrificing individual rights. Maintaining that fragile balance is the collective role of all citizens.
SOC.K-12.6.2.E.2	The earth is a global community where the actions of one country can affect lives in other countries.
SOC.K-12.6.2.E.3	The U.S. view of global issues and challenges may not be the same as the views held by other countries and cultures.
SOC.K-12.6.3.A -H.6	Individuals have the power to make positive changes in society.
SOC.K-12.6.6.B.2	Regional geographic differences can result in social, economic and political differences.
SOC.K-12.6.6.E.2	Technological changes impact the environment.

Essential Questions

- Are we morally obligated to help the world?
- What can be constructively criticized about a culture?
- What is the minimum that we need for our daily nutrition?
- What happens to the food that is not bought or eaten?
- What is an appropriate portion size?
- What resources are required to grow and process food?

Application of Knowledge: Students will know that...

- Food can be lost or wasted at any stage of the food supply chain--production, distribution, retail, or consumption
- Food waste is much higher in developed countries
- Food waste or loss is also a waste of water, energy, and labor
- Global food production and efficiency will need to increase for further population growth
- Somewhere between 1/3 and 1/2 of all food produced is wasted, spoiled, or squandered

Application of Skills: Students will be able to...

- Acknowledge how food waste contributes to price fluctuations
- Explain the means by which food is produced and distributed
- List ways in which food loss can be prevented
- Reassess their own consumption habits in relation to its tax on the environment

Assessments

- Infographic showing statistics on food waste or steps in food production
- Informal observations of student discussion on solutions to food waste issues
- Class compact agreement to implement individual solutions to food waste issues
- Action plan for chosen country to reduce food waste
- Written reflection on current policy of chosen country or news report
- Information from this unit will be included on a locally developed, mid-year or end of course benchmark assessment that may take the form of a test, performance based project, or other summative assessment

Suggested Activities

- Watch a documentary on food production and/or waste
- Research current policy and initiatives related to food waste in a country of the student's choosing
- Individual presentations on current events or policies related to food waste or production
- Group collaboration on an action plan to reduce food waste in a chosen country

Activities to Differentiate Instruction

Differentiation for special education:

- General modifications may include:

    - Modifications & accommodations as listed in the student's IEP
    - Assign a peer to help keep student on task
    - Modified or reduced assignments
    - Reduce length of assignment for different mode of delivery
    - Increase one-to-one time
    - Working contract between you and student at risk
    - Prioritize tasks
    - Think in concrete terms and provide hands-on-tasks
    - Position student near helping peer or have quick access to teacher
    - Anticipate where needs will be
    - Break tests down in smaller increments
- Content specific modifications may include:
    - One-on-one help with research
    - Oral assessment of learning goals

Differentiation for ELL's:

- General modifications may include:
    - Strategy groups
    - Teacher conferences
    - Graphic organizers
    - Modification plan
    - Collaboration with ELL Teacher
- Content specific vocabulary important for ELL students to understand include: food waste, food loss, distribution, production, retail, consumption, composting, landfill

Differentiation to extend learning for gifted students may include:

- Presentations on food policy in other nations
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Integrated/Cross-Disciplinary Instruction

Science: waste, greenhouse gas emissions

Social Studies: policy-making, decisions for the common good

Health: nutrition, balanced diet, food choices

Resources

- Summary of US food system: http://css.snre.umich.edu/css_doc/CSS01-06.pdf
- Food Industry Center, University of Minnesota: http://foodindustrycenter.umn.edu/
- Food loss, UN: http://www.fao.org/food-loss-and-food-waste/en/
- Save Food UN Initiative: http://www.fao.org/save-food/en/

- National Geographic food series: http://food.nationalgeographic.com/

21st Century Skills

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP3	Attend to personal health and financial well-being.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.