

Project Planning Template

Food Security and Food Delivery Systems

COURSE: Agriculture	DURATION: 3 weeks	TEACHER: Nina	Food Security and Food Delivery Systems – challenges around the world
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GLOBAL ISSUE OVERVIEW

Hundreds of thousands of people worldwide lack access to affordable, nutritious, and consistent sources of food. Without reliable food, little else often matters. The standard of living drops, and other aspects of human life suffer. “Nutritious” is sometimes an overlooked key; if you live in an area where your diet contains mainly starches, like rice or potatoes, are you really food secure?

Consider this: “The first decade of the 21st century has brought harbingers of a troubled future for global food security. The food-price spike of 2008 led to food riots and political change in several countries. In 2010, the excessive heat and drought in Russia that led to wildfires and a grain embargo, as well as the unprecedented floods in Pakistan, signal more trouble ahead. A world population approaching 9 billion by 2050 and higher incomes in hitherto poor countries will lead to increased food demand, which means significant challenges to sustainable agricultural production.” (IFPRI Food Security and Climate Change)

And closer to home, “Although the United States has been called the ‘land of plenty,’ 4 million U.S. households reported experiencing hunger during 2010 because they could not afford enough food. Almost one in seven U.S. households—over 17 million—suffer from food insecurity, a condition that includes hunger (in more extreme cases), as well as having to skip meals, compromise on nutrition and rely on emergency food sources such as food banks, food pantries and soup kitchens. The presence of hunger and food insecurity in the United States raises questions of why they prevail, how they should be addressed and who should be responsible for doing so.” (Hunger and Food Security Background pdf)

New phrases are even being coined to describe aspects of this situation worldwide. For example, cities worldwide can be classified in terms of “food deserts.” There are many definitions of this, but the American Nutrition Association uses the following: “Food deserts are defined as parts of the country void of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas. This is largely due to a lack of grocery stores, farmers’ markets, and healthy food providers.” (<http://americannutritionassociation.org/newsletter/usda-defines-food-deserts>)

Global Competencies Addressed:

- Investigate the World: Initiate investigations of the world by framing questions, analyzing and synthesizing relevant evidence, and drawing reasonable conclusions about global issues.
- Recognize Perspectives: Recognize, articulate, and apply an understanding of different perspectives.
- Communicate Ideas: Select and apply appropriate tools and strategies to communicate and collaborate effectively, meeting the needs and expectations of diverse individuals and groups.
- Take Action: Translate ideas, concerns, and findings into appropriate and responsible individual or collaborative actions to improve conditions.

STANDARDS ADDRESSED

Career/Technical Knowledge and Skills	Academic Knowledge and Skills	21 st Century Skills
<p>Common Career Technical Core <u>Career Ready Practices</u> CRP – 1 Act as a responsible and contributing citizen and employee. CRP – 4 Communicate clearly, effectively, and with reason. CRP – 5 Consider the environmental, social, and economic impacts of decisions. CRP – 6 Demonstrate creativity and innovation. CRP – 7 Employ valid and reliable research strategies. CRP – 10 Use technology to enhance productivity. CRP – 12 Work productively in teams while using cultural/global competence.</p> <p><u>Agriculture, Food, & Natural Resources Career Cluster (AG)</u> 1. Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food, & Natural Resources Career Cluster.</p>	<p>Writing: Communicate information and ideas in narrative, informative, and persuasive writing with clarity and effectiveness. W.9-10.3 W.11-12.3 WHST.9-10.2 WHST.11-12.2 WHST.9-10.4 WHST.11-12.4</p> <p>Speaking: Deliver planned and impromptu oral presentations. SL.9-10.1 SL.11-12.1 SL.9-10.4 SL.11-12.4 SL.9-10.6 SL.11-12.6</p> <p>Common CORE Literacy CCSS.ELA-LITERACY.RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p>CCSS.ELA-LITERACY.RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding</p>	<p>Learning and Innovation Skills:</p> <ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration <p>Information, Media, and Technology Skills:</p> <ul style="list-style-type: none"> • Information Literacy <p>Life and Career Skills:</p> <ul style="list-style-type: none"> • Flexibility and Adaptability • Initiative and Self-Direction • Productivity and Accountability • Leadership and Responsibility

<p>2. Evaluate the nature and scope of the Agriculture, Food, & Natural Resources Career Cluster and the role of agriculture, food, and natural resources (AFNR) in society and the economy.</p>	<p>of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>CCSS.ELA-LITERACY.SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p>CCSS.ELA-LITERACY.SL.11-12.5 Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.</p>	
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PROJECT DEFINITION & GOALS/OBJECTIVES

1. Students will acquire the skills necessary to research factors impacting food security as impacted by food delivery systems from field to table.

2. Students will analyze the effect of cultural differences, export/import opportunities, government regulation, and trends on food delivery systems in different regions around the world.

The teacher can select specific countries or regions for students to research or have different students select regions/countries to research.

Project Goals/Objectives:

- Identify factors impacting food security within a region.
- Identify formal challenges to an efficient and effective field to table food delivery system within a region.
- Identify informal challenges to an efficient and effective field to table food delivery system within a region.
- Identify strategic partners and methods for improving food security within a region.
- Develop a realistic plan of action for addressing one of the challenges you identified.
- Inform key decision makers about the potential consequences of pursuing a specific course of action.

SCENARIO OR PROBLEM: What scenario or problem will you use to engage students in this project?

Your team is tasked with researching the food delivery systems, from field to table, in a specific geographic region. You will identify the strengths and challenges to the existing system, and propose approaches to bringing needed practices and services to that region to address one of the challenges you identify. Just as you consider delivery systems, you should take into account the cultural and economic realities of the region in any approach you propose.

Essential Questions

- How does hunger compare with food security?
- What makes food security a global concern?
- How is it possible for agricultural production to address food security and be environmentally conscious at the same time?
- Whose responsibility is food security?

Grade Level Adaptations

Younger grades: Before starting the project, the teacher would research the geographic regions that students will pick from so that students have basic resource information (especially about cultural and economic realities of the region) available to them as they begin the project. The separate project goals on formal and informal challenges could be collapsed into a single goal about any challenges. The teacher could also prepare an outline of food delivery system components (field to table) for students to consider as they identify the strengths, weaknesses, and possible new approaches of the food delivery system.

More advanced students: Students can work individually on the project.

ASSESSMENT: How will you determine what students have learned? (Check all that apply.)			
FORMATIVE		SUMMATIVE	
Quizzes/Tests	X	Multiple Choice/Short Answer Test	
Notes/Graphic Representations		Essay Test	
Rough Draft		Written Product with Rubric	X
Practice Presentation		Oral Presentation with Rubric	X
Preliminary Plans/Goals/Checklists of Progress	X	Other Product or Performance with Rubric	
Journal/Learning Log	X	Self-Evaluation or Reflection	X
Other:		Evaluation by Authentic Audience	
		Other:	
MATERIALS, RESOURCES, or CONSTRAINTS: What materials and resources will be needed? Are there any perceived challenges?			
<ul style="list-style-type: none"> • Computer access • Internet access • Student Learning Journal template – adapted from Tammy Worcester Tang http://tammyworcester.com/student-learning-journal-template/ • Presentation Rubric • Project Rubric <p>Internet Resources – content specific:</p> <ul style="list-style-type: none"> • Food Security CASE Maps: http://casemaps.ifpri.info/ • IFPRI, Food Security and Climate Change: http://www.fao.org/fileadmin/user_upload/rome2007/docs/IFPRI%20Food%20Security%20and%20Climate%20Change.pdf • World Food Programme, Understanding Hunger: http://wfpusa.org/get-involved/classroom-activities • PBS World Food Day Resources: http://www.pbs.org/newshour/extra/2013/10/world-food-day-resources/ • World Food Programme, Classroom Activities: http://www.wfp.org/students-and-teachers/classroom-activities • World Food Programme, Web of Connections: http://documents.wfp.org/stellent/groups/public/documents/webcontent/wfp202964.pdf • Roadrunner Food Bank, Hunger vs. Food Insecurity: http://www.rrfb.org/hunger-vs-food-insecurity/ • USDA, Food Security in the U.S.: http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us.aspx 			
SUPPORT, MODIFICATIONS, AND EXTENSIONS: What is needed to provide support for students who have difficulty learning the content, modify for students with special learning needs, or to provide enrichment for advanced students?			
<ul style="list-style-type: none"> • Teacher-created graphic organizers can be used to guide the project’s research and recommendation phases for students who need additional structure. • Extended time can be offered to students with special learning needs. • Advanced students can create a project plan for implementing one of their recommendations; the plan would include steps to be taken and cost estimates. 			

- Before and after school assistance will be offered.

CALENDAR OF MAJOR LEARNING ACTIVITIES—What are the learning activities or tasks for each day? Are there any project milestones? When will formal assessment activities occur?

Week 1				
Monday	Tuesday	Wednesday	Thursday	Friday
Discussion of food delivery systems (components, impacts, influences)	Discussion on the relationship between food security and food delivery systems	Class brainstorm on countries/regions Introduce project and teams	Group research day – country/region profile information	Group research day – country/region profile information and draft profile
Week 2				
Group research day – present draft profile to teacher Start identifying food security challenges	Group research day – finalize country profile; continue food security challenges list Present challenge list to teacher	Country profile due Discussion of challenges – each group shares their list with the class Review the project plan of action	Group research/writing day – select challenge and begin food security challenge plan of action	Group research/writing day – food security challenge plan of action Share draft with teacher
Week 3				
Group research day – finalize plan of action	Plan of action due Group works on presentation	Group finalizes and practices presentation	Food security challenge plan of action presentations	Finish presentations Individual student reflections Class reflection activity

STUDENT REFLECTION ACTIVITIES—How will students reflect on their work? Add reflection questions and/or activities here.

See Food Security Challenge Reflection worksheet.

Class reflection activity: After students complete the student worksheet, put each reflection question from the worksheet on a sheet of poster paper and place around the room. Have students use post-its to place at least one reflection on each sheet. After everyone has put their post-its up, have students go to each poster again and place a dot (or x or checkmark) on the reflections of others that resonated with them. Quickly review the reflections, inviting students to share their thoughts on any “ah-ha” moments they had during the project.

Adapted from: Southern Regional Education Board, Unit Planning Template, 592 10th St. N.W., Atlanta, GA 30318-5776