Asia Society | Center for Global Education

Project Planning Template

To Grow or Not to Grow?

COURSE:	DURATION:	TEACHER:	Food Security: To grow or not to grow?
Business	2 weeks – daily schedule, 3 weeks – block schedule		

GLOBAL ISSUE OVERVIEW

"The use of genetic engineering techniques in agriculture and food production is seen as an exciting and valuable development by many people who welcome the improvements in production efficiency that they offer to farmers and the enhanced nutritional value that is envisioned to benefit consumers. Others, however, are objecting strongly, raising environmental, food safety, and ethical concerns. A majority of people in Western Europe, Japan, and Australia, for example, want at least to have labels on products that contain genetically modified organisms (GMOs), while the most extreme opponents want to see genetically modified (GM) crops completely excluded from production and consumption in their country.

"The emergence of genetically modified foods has generated a variety of policy reactions in different countries. The most extreme of these could lead to trade disputes in the World Trade Organization (WTO). Regardless of whether developing countries are exporters or importers of agricultural crops, they will be affected by the biotech policies adopted in countries with which they trade – especially if international trade disputes concerning GMOs emerge. The strong consumer skepticism toward genetic engineering in some countries, particularly in Europe, will also define the trading environment in which developing countries must compete."

Genetically Modified Foods, Trade, and Developing Countries: Is Golden Rice Special? by Chantal Pohl Nielsen and Kym Anderson http://www.agbioworld.org/biotech-info/topics/goldenrice/specialgoldrice.html

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.

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STANDARDS ADDRESSED		
Career/Technical Knowledge and Skills	**Academic Knowledge and Skills**	**21st Century Skills**
College and Career Readiness Anchor Standards for Speaking and Listening: **Comprehension and Collaboration** 1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively (if assigned to a team). 2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. **Soft Skills:** Oral presentation **CCCT** BM-MGT 3 Apply economic concepts fundamental to global business operations. 1. Describe global trade's impact on business activities. BM-MGT 4 Employ and manage techniques, strategies, and systems to enhance business relationships. 2. Manage internal and external intercultural business relationships. CRP – 4 Communicate clearly, effectively, and with reason. CRP – 6 Demonstrate creativity and innovation. CRP – 7 Employ valid and reliable research	**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 **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 **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. CCSS.ELA-LITERACY.RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments,	**Learning and Innovation Skills:** • Critical Thinking and Problem Solving • Communication and Collaboration **Life and Career Skills:** • Flexibility and Adaptability • Initiative and Self-Direction • Productivity and Accountability • Leadership and Responsibility

strategies. CRP – 10 Use technology to enhance productivity. Analyze the effect of cultural difference, export/import opportunities, and trends on business ventures in the global marketplace. Analyze how forms of business ownership, government regulations, and business ethics affect business ventures.	simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible. 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. 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.	

PROJECT DEFINITION & GOALS/OBJECTIVES

1. Students will acquire the skills necessary to research factors impacting successful trade in the food sector.
2. Students will analyze the effect of cultural difference, export/import opportunities, government regulation, and trends on business ventures in the global marketplace.

The teacher can select specific countries for students to research or have different students research different countries. In the resource section, three different countries with differing regulations and perceptions of Genetically Modified Organisms (GMOs) have been provided for illustrative purposes.

Project Goals/Objectives:

- Identify formal barriers to conducting business in a global marketplace.
- Identify informal barriers to conducting business in a global marketplace.
- Identify strategic partners and methods for conducting business in a global marketplace.
- 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 company manufactures a popular snack item. Currently the snack is produced using non-GMOs. However, increasing global demand is creating pressure to ramp up production; your company stands to profit significantly if it can do so. To quickly meet rising demand would require using both non-GMO resources and GMO resources. You are/your team is tasked with conducting research and providing information on how the business should proceed in specific international markets. Each person/group should provide the rationale for their proposed course of action.

What are the pros and cons for each proposed course of action?

Essential Questions

- How do socio-political factors affect the business environment?
- How does public perception affect the business environment?
- How does government regulation affect the business environment?
- What trade barriers exist?
- How can strategic partnerships or different methods of organizing operations mitigate trade barriers?
- Is there ever a case for not expanding/responding rapidly to market pressures?

Grade Level Adaptations

Younger grades: Before starting the project, the teacher would research the specific international markets 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.

More advanced students: Students can work individually on the project. Students could deliver their presentations for the "Board of Directors" of the snack food company to pitch their proposed course of action to a group of community food industry people for their feedback.

ASSESSMENT: How will you determine what students have learned? (Check all that apply.)

FORMATIVE		**SUMMATIVE**	
Quizzes/Tests	**X**	Multiple Choice/Short Answer Test	**X**
Notes/Graphic Representations	**X**	Essay Test	
Rough Draft		Written Product with Rubric	
Practice Presentation		Oral Presentation with Rubric	**X**
Preliminary Plans/Goals/Checklists of Progress		Other Product or Performance with Rubric	
Journal/Learning Log Adapted from Tammy Worcester Tang	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?

- Computer access
- Internet access
- PACED decision-making model: http://www.econedlink.org/lessons/docs_lessons/463_463_PACED14.pdf
  A partially completed example "Example Paced" has been provided for informational purposes.
- Student Learning Journal template – adapted from Tammy Worcester Tang
  http://tammyworcester.com/student-learning-journal-template/
- Presentation Rubric – Buck Institute
  http://bie.org/object/document/9_12_presentation_rubric_ccss_aligned
- Business Dictionary: http://www.businessdictionary.com

Internet Resources – content specific:

- "A Safer Food Future, NOW," Eric Schlosser, *Consumer Reports,* May 2016, Vol. 81, no. 5, pages 50–55.
- "How Genetically Modified Crops Grow," *National Geographic,* Field Notes, April 2016, Vol. 229, no. 4.
- "U.S. Security Panel Clears a Chinese Takeover of Smithfield Foods," Michael J. de la Merced, *NY Times,* September 6, 2013.
  "Economic Impacts of Genetically Modified Crops on the Agri-Food Sector: A First Review"
  - http://ec.europa.eu/agriculture/publi/gmo/full_en.pdf
- Standards and Trade Development Facility
  - http://www.standardsfacility.org/sites/default/files/STDFFactSheet_EN_0.pdf
- STDF
  - http://www.standardsfacility.org/
- World Trade Organization
  - wto.org
- Sanitation and Phytosanitation
  - https://www.wto.org/english/tratop_e/sps_e/sps_e.htm
- World Trade Organization – brochure "Food Safety and Phytosanitation"
  - https://www.wto.org/english/thewto_e/20y_e/sps_brochure20y_e.pdf
- Institute for Agriculture and Trade Policy
  - http://www.iatp.org/documents/trade-deal-to-undermine-health-environmental-...www.iatp.org
  - http://www.iatp.org/files/Labeling_Trade_and_Genetically_Modified_Organi.htm
- The Natural Society
  - http://naturalsociety.com/about/naturalsociety.com
  - http://naturalsociety.com/breakdown-of-gmo-labeling-laws-by-country-global-map/
- The LAW Library of Congress – Access the LOC (Library of Congress website https://www.loc.gov/)

- Search using the key terms "restrictions on GMOs" Examples follow for comparison purposes:
- https://www.loc.gov/law/help/restrictions-on-gmos/sweden.php
- https://www.loc.gov/law/help/restrictions-on-gmos/china.php
- http://www.loc.gov/law/help/restrictions-on-gmos/israel.php

Perceived challenges may include facilitating student thinking beyond immediate/direct components of company product. For example, if the popular snack item included dairy products and the livestock consumed feed with GMOs, the dairy products used in snack production could be considered GMO and may have to be distinctly labeled as such.

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?

- Additional time and assistance from instructor for those having difficulty.
- Enrichment: Investigate/explain what accounts for differences in policy and perception between two given countries.

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
Expert vocabulary pre-test Define essential terms • Trade barrier formal/informal • Cost benefit analysis • Trade-offs • Opportunity cost • WTO • IMF • Phytosanitation • GMO / Non-GMO	Investigate perceptions Consider points of view: a. Industry b. Consumer	Conduct research	Conduct research Learning Journal/note check	Conduct research Complete PACED Decision-Making Model
Week 2				
Rough draft research results	Final draft research results Learning journal check	Practice presentations	Presentations Discussion Concept clarification	Multiple Choice/Short Answer Quiz over key concepts and terms Unit Learning Journal

				Entry

STUDENT REFLECTION ACTIVITIES—How will students reflect on their work? Add reflection questions and/or activities here.
Unit Learning Journal Entry – What is my personal opinion about GMO ingredients in food? How has my opinion changed (or not changed) with what I learned during this project?

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