

Project Planning Template

COURSE: Business	DURATION: 3 weeks	TEACHER:	Clean Energy: Solar or Wind
GLOBAL ISSUE OVERVIEW			
<p>Green is more than a color... Global warming is a trending topic that elicits strong responses. Regardless of one's opinion, the need for reliable energy is undeniable; an increasing world population leads to increasing demand for energy. For many, energy for business use and for personal use is dangerous, unreliable, or financially inaccessible. Additionally, fossil fuels, a common source of energy, are finite, degrade the environment, and the location of key reserves of fuel in politically unstable areas of the world makes reliance on them susceptible to erratic supplies and extreme fluctuations in price. Clean energy in the form of solar or wind represents possible solutions.</p> <p>Thousands of people worldwide lack access to affordable, sustainable, safe sources of energy. Consequently, their standard of living is adversely impacted. How do we best harness these resources on a global scale?</p> <p>Global Competencies Addressed:</p> <p>Investigate the World: Initiate investigations of the world by framing questions, analyzing and synthesizing relevant evidence, and drawing reasonable conclusions about global issues.</p> <p>Recognize Perspectives: Recognize, articulate, and apply an understanding of different perspectives.</p> <p>Communicate Ideas: Select and apply appropriate tools and strategies to communicate and collaborate effectively, meeting the needs and expectations of diverse individuals and groups.</p> <p>Take Action: Translate ideas, concerns, and findings into appropriate and responsible individual or collaborative actions to improve conditions.</p>			

STANDARDS ADDRESSED		
Career/Technical Knowledge and Skills	Academic Knowledge and Skills	21 st Century Skills
<p>College and Career Readiness Anchor Standards for Speaking and Listening: Comprehension and Collaboration</p> <p>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).</p> <p>2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.</p> <p>Soft Skills: Oral Presentation</p> <p>CCCT</p> <p>BM-MGT 3 Apply economic concepts fundamental to global business operations.</p> <p>1. Describe global trade's impact on business activities.</p> <p>BM-MGT 4 Employ and manage techniques, strategies, and systems to enhance business relationships.</p> <p>2. Manage internal and external intercultural business relationships.</p> <p>CRP – 4 Communicate clearly, effectively, and with reason.</p> <p>CRP – 6 Demonstrate creativity and innovation.</p> <p>CRP – 7 Employ valid and reliable research strategies.</p> <p>CRP – 10 Use technology to enhance productivity.</p>	<p>Common CORE Literacy</p> <p>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 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>	<p>Learning and Innovation Skills:</p> <ul style="list-style-type: none"> • Critical Thinking and Problem Solving • Communication and Collaboration <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

PROJECT DEFINITION & GOALS/OBJECTIVES

1. Students will acquire the skills necessary to research forms of clean energy.
2. Students will acquire the skills necessary to analyze results of research to determine which form of clean energy best suits a specific product and market.
3. Students will acquire the skills necessary to research social entrepreneurship.
4. Students will analyze the effect of cultural differences, government regulation, and trends on business ventures in the global marketplace.

The teacher can select specific countries/products for students to research OR allow students to select their own products and/or geographic regions.

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.
- Identify non-traditional business methods of providing goods and services.
- Determine a course of action to provide energy/services to a specific underdeveloped geographic region.

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

What does “social responsibility” mean?

Is it possible for a business to be both profitable and socially responsible?

If it IS possible for a business to be both profitable and socially responsible, what does that look like and how is it done?

Hundreds of thousands of people worldwide lack access to affordable, sustainable, safe sources of energy; consequently, their standard of living is adversely impacted. These negative consequences include problems in medical care, food safety, and life expectancy. What factors impede access to affordable, sustainable, safe sources of energy? How can these factors be addressed?

Your team is tasked with researching forms of clean energy and products utilizing clean energy. You will identify a way to bring much-needed services to a specific geographic region. Just as you consider alternative energy sources, you should consider alternative methods of financing and organizing business operations to best meet the needs of the underserved areas.

*Teacher may allow students to devise a way to scale a successful currently existing project OR may allow students to devise their own plan for bringing energy/energy-related services to underserved areas.

Essential Questions	Grade Level Adaptations
<ul style="list-style-type: none">• What does “social responsibility” mean in terms of clean energy?• What role or roles does business play in providing clean energy sources globally?• Is it possible for a business to be both profitable and socially responsible?	<p>For younger students, the teacher may select a specific set of forms of clean energy instead of having the students conduct research across all forms.</p> <p>For more advanced students, the teacher could have students prepare a persuasive public service campaign explaining the features and benefits of the energy source that they are recommending for the given underserved area.</p>

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

FORMATIVE		SUMMATIVE	
Quizzes/Tests		Multiple Choice/Short Answer Test	
Notes/Graphic Representations	X	Essay Test	
Rough Draft		Written Product with Rubric	
Practice Presentation		Oral Presentation with Rubric	
Preliminary Plans/Goals/Checklists of Progress	X	Other Product or Performance with Rubric	X
Journal/Learning Log		Self-Evaluation or Reflection	X
Other:		Evaluation by Authentic Audience	X
		Other: 3D model	

MATERIALS, RESOURCES, or CONSTRAINTS: What materials and resources will be needed? Are there any perceived challenges?

- Computer access
- Internet access
- Team Project Management List http://bie.org/object/document/project_management_log_team_tasks
- Presentation Rubric – Buck Institute http://bie.org/object/document/9_12_presentation_rubric_ccss_aligned
- Self-reflection – Buck Institute http://bie.org/object/document/project_presentation_audience_feedback_form

Student Resources to Get Started

- Clean Power Plan and an equitable energy transition in rural America: <http://www.iatp.org/blog/201603/clean-power-plan-and-an-equitable-energy-transition-in-rural-america>

Fabio Rosa

- The Schwab Foundation: <http://www.schwabfound.org/content/fabio-rosa>
- Fast Company: <http://www.fastcompany.com/3019281/most-innovative-companies-2004/29fabio-rosa>
- YouTube video – Fabio Rosa: <https://youtu.be/LfmFEBRmgLU>

Other Solar:

- India Prohibits Cooking: <http://www.sfgate.com/world/article/Parts-of-India-ban-daytime-cooking-as-hundreds-7384324.php>
- Solar Suitcases Saving Lives: <http://voices.nationalgeographic.com/2012/01/12/shine-a-light-the-suitcase-thats-saving-womens-lives/>
- We Care Solar: <https://wecaresolar.org/category/projects/>

Social Entrepreneurs

- Ashoka Innovators for the Public: https://www.ashoka.org/social_entrepreneur
- Skoll Foundation: <http://archive.skoll.org/about/what-is-social-entrepreneurship/>
- Two Keys to Sustainable Social Enterprise: <https://hbr.org/2015/05/two-keys-to-sustainable-social-enterprise>

Financing

- Top 10 Crowdfunding Sites for Entrepreneurs: <https://www.entrepreneur.com/article/228534>

Microloans/Microfinance

- World’s Best Microfinance Sources: http://www.forbes.com/2007/12/20/microfinance-philanthropy-credit-biz-cz_ms_1220microfinance_table.html

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?

Schedule additional time and assistance from instructor and/or small groups for those having difficulty.

Enrichment: Investigate/explain what accounts for differences between two given countries.

Investigate and report on social entrepreneurship and endeavors other than clean energy.

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
<p>Introduce topic</p> <p>Students begin KWL sheet on clean energy</p> <p>Define: social responsibility, clean energy,</p>	<p>Assign students to teams</p> <p>General research forms of clean energy and products utilizing clean energy</p>	<p>Class discussion over results of general research</p> <p>Assign teams a specific geographic region</p>	<p>Teams discuss and identify individual tasks and responsibilities</p> <p>Complete Project management log for team tasks.</p>	<p>Instructor check team logs</p> <p>Instructor check notes</p>

“green,” social entrepreneurship, crowdfunding, microloans, microfinance			Research	
Week 2				
Class review of project objectives Research	Research Instructor meets with each team to review progress	Research Instructor meets with each team to review progress Final product should be under way	Research/work on product Teams review/revise project management logs Instructor meets with each team to review progress	Work on project Instructor meets with each team to review progress
Week 3				
Update and review of KWL sheet	Instructor distributes and explains audience evaluation sheet Practice presentations	Final products due Presentations begin	May need an additional day depending on number of students/teams involved	Completion of KWL sheet Reflection Activity
STUDENT REFLECTION ACTIVITIES —How will students reflect on their work? Add reflection questions and/or activities here.				
Reflection writing – thinking about this project, what do you think might be applied to the area where you live?				
Why would you choose to support or not support clean energy sources in your community?				

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