

Combatting the Effects of Climate Change—How Women Have Been Empowered to be a Part of the Solution and How We Can Join Their Efforts

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School: Academy of the Holy Angels, Demarest, NJ

Subject Areas: International Studies

Grade Level:12th grade

Time Frame to Allow for Lesson:

Allow 5-6 class periods (approximately 5 hours in class), and approximately 4 days for independent research. The final project will be presented to the school community during the school lunch periods.

Introduction:

The overall goal will be for students to see how they as young women in an all-girls school can help to minimize the impact of climate change and educate others on how to do so as well. They will research what organizations help to empower women to make a difference in their communities in relation to difficulties that arise as a result of climate-related factors and learn of the importance of their roles in this topic.

Geographic Connections: Related to Global Cultural Themes

D2.Geo.3.3-5. Use maps of different scales to describe the locations of cultural and environmental characteristics.

D2.Geo.3.9-12. Use geographic data to analyze variations in the spatial patterns of cultural and environmental characteristics at multiple scales.

D2.Geo.2.6-8. Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions, and changes in their environmental characteristics.

Vocabulary:

Global warming, climate change, hazards, impacts, mitigation, adaptability, Red Tide, water purification

Common Core Content Standards:

6.2.12.B.6.a

Determine the global impact of increased population growth, migration, and changes in urban-rural populations on natural

resources and land use.

6.2.12.C.6.a

Evaluate efforts of governmental, nongovernmental, and international organizations to address economic imbalances and social inequalities.

Essential (Compelling) Question:

How are women in developing countries empowered to try to help their communities adapt to climate change, and learning from them, how can we become a part of the solution?

Placement of Lesson within Broader Curriculum/Context:

This lesson will introduce our section on environmental issues. The main goal of this lesson is not only for students to learn about climate change and what is being done to help and what they can do to help, but also to provide the opportunity for advocacy and allowing the larger school community to get involved.

Learner Background:

Students have been taught about the environment previously on a school-wide basis at our Awareness Day last year, which covered a variety of environmental problems, however, student's knowledge on specific topics within climate change varies, thus I will be starting with a background on global warming and climate change.

Objectives for Lesson: *Students will be able to...*

-Understand climate change and how it has exacerbated problems in developing countries, such as food and water shortages.

-Understand what some groups are doing to help empower women and children in these countries to try to help combat the problems associated with climate change.

-Learn what it is being done to help combat the impact of climate change and what they can do to help, as well as to educate others on climate change.

Integration of 21st century skills:

Students will learn how to effectively communicate the problem of climate change to the entire school community through a multimedia presentation. They will also help to solve real world problems by encouraging others to get involved in being part of the solution and providing them with ideas on how to do so and will also head a fundraiser for CSDW.

Assessment:

Formative - class discussion and questions regarding assigned readings

Summative — research project presentation

Presentations must include:

- 1) **An 8-10 minute multi-media presentation (slideshow, Power Point a short video, etc.) of the organization**, including:
 - a. a background of the problem they are advocating for
 - b. what the organization does, what types of services do they provide, etc.
 - c. where they provide services
 - d. how they were formed
 - e. a works cited page

A project rubric is included on the last page.

Materials/Resources:

Laptop computers (each student has one)

Projector for the assessment

Readings:

National Geographic article “Feeding the World”:

<http://www.nationalgeographic.com/foodfeatures/feeding-9-billion/> (homework for Day 2)

Online course/video on climate change:

World Wildlife Fund:

<http://wwfadapt.org/understanding-climate-change/story.html> (Day 1)

Organizations:

Clinton Global Initiative:

http://www.clintonglobalinitiative.org/ourmeetings/PDF/actionareas/Why_Invest_in_Adolescent_Girls.pdf

Feeding America:

<http://www.feedingamerica.org/>

UNICEF:

<http://www.unicef.org/>

CREATE!:

<http://www.createaction.org/>

Children's Safe Drinking Water (CSDW):

<http://www.csdw.org/csdw/index.shtml>

Slow Foods:

<https://www.slowfoodusa.org/ark-of-taste-in-the-usa>

Lesson Development/Instructional Strategies:

Day one: Begin with small group discussions of 4-5 students, asking each of them to define what they believe global warming and climate change are. Small groups will share their responses with the large group and then we will begin to talk about what climate is and then transition into what global warming is and how it leads to climate change. To help illustrate the points and engage the students, I will show the WWF online course on climate change listed in the resources section. After each set of new terms is introduced, pause the slideshow and ask for student volunteers to try to define them, in a large group setting. Students will be assigned to read the article "Feeding the World," on the National Geographic website link listed in the resources section. (45 minutes)

Day two: We will discuss the impact of climate by engaging in a large group discussion. We will discuss how it impacts land masses and waterways. Student will be asked to provide specific examples of climate change and if they have witnessed the impact themselves. Topics to be explored will be fisheries, the impact of climate change on bees, and the impact of climate change on the food supply. We will also discuss their reactions to their assigned reading from the National Geographic website. Questions to guide the students will include asking them what challenges were presented in the article as well as solutions. (45 minutes)

Day three: After having discussed the general impact of climate change, we will get into the specific impact of climate change in developing countries, particularly on the African continent. I will begin to provide examples of how women are empowered in developing countries to try to combat the problems of climate change. We will discuss CSDW and do an experiment on water with the P&G water purification tablets (which can be obtained by visiting the CSDW webpage listed in the resources section) and discuss the student reactions to it. Questions will include what they consider to be the positives of this technology and how much of a difference they believe it can make in developing countries. (45 minutes)

Day four-five: Students will break into groups of 4 or 5 and start to research ways that women have impacted. Each group will choose an organization designed to help women become empowered to help others in their communities to adapt the impact of climate change—the organizations may be international or local. Students will be given the choice to research one of

the groups in the resources listed below or for differentiated learners who wish to go out on their own, they may research a group not listed below, but would need my approval to ensure that they are legitimate organizations. The final product will be a 8-10 slide slideshow presentation, Power Point, or 5 minutes short film highlighting the basic problems that the organization is working towards solving, the areas impacted, and how the women in these areas are helping to make a difference. Each group would also be responsible for creating a list of suggestions examining how students/faculty can help get involved in the effort. (90 minutes in class and four days for independent research—the lesson will begin on a Monday and student will work on the assignment in class on Friday and have the weekend to complete it)

Day five (extension activity)

Final product would be designed to share with the school during lunch time on Earth Day or World Environment Day in the cafeteria during both lunch periods. On the day that the video would be shown, students will also run a bake-sale, where they demonstrate the P&G water purification packets and proceeds from the bake sale would go towards CSDW. Suggestions for this fundraiser and others can be found on the CSDW page. The fundraiser can take place on World Water Day, Earth Day or World Environment Day.

Students Needing Differentiated Instruction:

Since there are generally students of varied abilities in your classroom, identify ways to modify and enrich this lesson. Consider that students may represent a range of ability and/or achievement levels, including students with IEPs, gifted and talented students, struggling learners, and English language learners. Please address these two questions:

- *How will you differentiate instruction in this lesson for students you may anticipate struggling with the content/learning objectives?*

Students who have trouble following the Power Point presentation or video presentation on climate change may access the materials ahead of time with my permission, giving them an opportunity to read them before the lesson and follow along with it on their own laptop computer in front of them.

- *How will you provide opportunities for enrichment/higher level of challenge for students?*

Students can pick the option during their formative assessment to create a power point, short video or a slide-show presentation. They may also choose to research an organization from the resources list or research one on their own, with teacher approval. Students may also choose to volunteer for leadership roles in our fundraiser and awareness campaign.

Climate Change Project Rubric

CATEGORY	Excellent- A 50-45	Good- B 44-40	Satisfactory- C 39-35	Improvement Needed- D 34 and below
Content - Accuracy	All content throughout the presentation is accurate. There are no factual errors.	Most of the content is accurate but there is one-two pieces of information that is inaccurate.	The content is generally accurate, but more than two pieces of information are clearly inaccurate.	Content confusing or contains more than three factual errors.
Sequencing of Information	Information is organized in a clear, logical way. It is easy to anticipate the next slide.	Most information is organized in a clear, logical way. One-two slides or piece of information may be out of place.	Some information is logically sequenced. More than two pieces of information seem out of place.	There is no clear plan for the organization of information.
Effectiveness	Project includes all material needed to give a good understanding of the topic. The project is consistent with the driving question.	Project is lacking one or two key elements . Project is consistent with driving question most of the time.	Project is missing more than two key elements. It is rarely consistent with the driving question.	Project is lacking in key elements and has inaccuracies. Project is completely inconsistent with driving question.
Use of Graphics	All graphics are easy to see (size and colors) and support the topic of the presentation.	Two graphics are not clear or easy to read but all support the topic of the presentation.	Not all graphics are clear or more than two do not support the topic of the presentation.	Several graphics are hard to decipher AND detract from the content of the presentation.
Text - Font Choice & Formatting	Font formats (color, bold, italic) have been carefully planned to enhance readability and content.	Font formats have been carefully planned to enhance readability, with one-two slides being difficult to decipher	Font formatting has been planned to complement the content, but more than two slides are difficult to read.	Font formatting makes it very difficult to read the material.
Spelling and Grammar	Presentation has no misspellings or grammatical errors.	Presentation has one-two misspellings , but no grammatical errors.	Presentation has one-two grammatical errors and misspellings.	Presentation has more than two major grammatical and/or spelling errors.
Cooperation/Group	Group shares tasks and all performed	Group shares tasks and performed	Group shares tasks and performs	Group often is not effective in sharing tasks and/or

	responsibly all of the time.	responsibly most of the time.	responsibly some of the time.	sharing responsibility.
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