

That's the Way the Cookie Crumbles...or Does it? An Investigative Look into Global Food Insecurity and Hidden Poverty

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Subject: World Geography, 7th grade (lesson appropriate for middle grades 6-7)

Time frame: 2 to 3 class periods (45 minutes)

Introduction: *This lesson is part of a disciplinary unit on global interconnections and environmental changes. Students will analyze how food insecurity can manifest itself at local, regional, and global levels over time. Students will identify its characteristics and causes, and the challenges and opportunities faced by those trying to address this issue.*

Geographic Connections: *This lesson relates to the Global Cultural Themes in the C3 found in dimension 2, Geography. Geography inquiry helps students understand their place in the world and can develop a student's interest in Earth's environments and cultures. This process requires students to ask and develop questions and apply their findings to geographic representations and geospatial concepts.*

Vocabulary: *Argument, explanation, sources, evidence, claims, counterclaims, rebuttal, credibility, NGO's, insecurity, life expectancy, literacy rate, unemployment, economy, government, globalism, poverty, inequality*

Content Standards, Literacy:

CCSS.ELA-LITERACY.RH.6-8.2

Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.

CCSS.ELA-LITERACY.RH.6-8.6

Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

CCSS.ELA-LITERACY.RH.6-8.7

Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

CCSS.ELA-LITERACY.RH.6-8.8

Distinguish among fact, opinion, and reasoned judgment in a text.

Content Standards, Writing:

CCSS.ELA-LITERACY.WHST.6-8.1.A

Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.

CCSS.ELA-LITERACY.WHST.6-8.1.B

Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.

CCSS.ELA-LITERACY.WHST.6-8.1.C

Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.

CCSS.ELA-LITERACY.WHST.6-8.1.D

Establish and maintain a formal style.

CCSS.ELA-LITERACY.WHST.6-8.1.E

Provide a concluding statement or section that follows from and supports the argument presented.

CT Social Studies Framework Inquiry Standards:

Dimension 1: Developing questions and planning inquiry

INQ 6–8.2 *Explain points of agreement experts have about interpretations and applications of disciplinary concepts and ideas associated with a compelling question.*

INQ 6–8.3 *Explain points of agreement experts have about interpretations and application of disciplinary concepts and ideas associated with a supporting question.*

INQ 6–8.5 *Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration multiple points of view represented in the sources.*

Dimension 2: Applying disciplinary concepts and tools

Social science instruction can be taught thematically. This lesson is part of a disciplinary unit using the themes of global interconnections and environmental

changes. Students will use inquiry to analyze how food insecurity can manifest itself at local, regional, and global levels over time. Student will identify its characteristics and causes, and the challenges and opportunities faced by those trying to address this issue. Students will take an informed action on the issue.

Dimension 3: Evaluating sources and using evidence

INQ 6–8.6 *Gather relevant information from multiple sources while using the origin, authority, structure, context, and corroborative value of the sources to guide the selection.*

INQ 6–8.7 *Evaluate the credibility of a source by determining its relevance and intended use.*

INQ 6–8.8 *Identify evidence that draws information from multiple sources to support claims, noting evidentiary limitations.*

INQ 6–8.9 *Develop claims and counterclaims while pointing out the strengths and limitations of both.*

Dimension 4: Communicating conclusions and taking informed action

INQ 6–8.10 *Construct arguments using claims and evidence from multiple sources, while acknowledging the strengths and limitations of the arguments.*

INQ 6–8.11 *Construct explanations using reasoning, correct sequences, examples, and details with relevant information and data, while acknowledging the strengths and weaknesses of the explanations.*

INQ 6–8.12 *Present adaptations of arguments and explanations on topics of interest to others to reach audiences and venues outside the classroom using print and oral technologies (e.g., posters, essays, letters, debates, speeches, reports, and maps) and digital technologies (e.g., Internet, social media, and digital documentary).*

INQ 6–8.13 *Critique arguments for credibility.*

INQ 6–8.14 *Critique the structure of explanations.*

INQ 6–8.15 *Draw on multiple disciplinary lenses to analyze how a specific problem can manifest itself at local, regional, and global levels over time, identifying its characteristics and causes, and the challenges and opportunities faced by those trying to address the problem.*

INQ 6–8.16 *Assess their individual and collective capacities to take action to address local, regional, and global problems, taking into account a range of possible levels of power, strategies, and potential outcomes.*

INQ 6–8.17 *Apply a range of deliberative and democratic procedures to make decisions and take action in their classrooms and schools, and in out-of-school civic contexts.*

Essential (Compelling) Question:

Why are there large regional and national differences in global food security?

Additional compelling questions:

- *Whose responsibility is it to feed our growing global population?*
- *Not everyone has equal access to resources, why?*
- *How does where we live affect how we live?*
- *How do we measure quality of life?*
- *What are the benefits and challenges that result from globalization?*
- *How has competition for resources and land affected the development of various regions and/or cultures?*
- *How does population density affect the availability of resources?*
- *Why are certain places more populated than others?*

Literacy through the Content Area:

Students will engage with both print and digital sources to determine the central ideas of the text/resource and provide an accurate summary of the information. Students will examine the text for the author's point of view and purpose. Students will determine what is fact, opinion and draw reasoned judgment from the text. Students will evaluate and compare visual information found in multiple mediums such as graphs, videos or maps and incorporate findings as evidence to support claims.

Placement of Lesson within Broader Curriculum/Context:

This lesson is part of a larger unit on human environmental interaction and global environmental change (global climate change and food insecurity). Students will examine how global climate change can directly or indirectly influence global population change. Students will utilize inquiry to explore global challenges caused as a result global climate change. Students will examine the global poverty index and explore developmental factors such as where is it best to be born, government stability, life expectancy, health care, urban vs rural population, education/literacy, and employment rates and how this can lead to food insecurity and hidden hunger.

Learner Background:

In the context of this lesson it would be expected that students have established an understanding of geography and the use of maps and globes. Students' prior knowledge should include exploration of United States geography as well as global geospatial relationships, such as human and physical geography. Students will be required to apply geographic concepts to study regions of the Earth in this lesson. This requires students to utilize their prior knowledge of local, state and national geography to examine and make connections to Earth's cultural and physical regions. It will be expected that students will evaluate a variety of viewpoints and perspectives on topics studied throughout the year. Students will be expected to engage in activities that promote the development of research, reading, writing, speaking and listening skills as part of the inquiry process in the social studies classroom.

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

- *Examine the global poverty index and explore developmental factors such as the where is it best to be born, government stability, life expectancy, health, level education, and employment rates.*
- *Analyze multiple mediums to formulate questions about global food security and determine the central ideas of the text/resource, and provide an accurate summary*
- *Evaluate the quality of information, author's purpose and perspective to make well reasoned claims*
- *Create a visual and written, digital representation that takes an informed action on global food insecurity and hidden hunger*

Integration of 21st century skills: *In this lesson students will use and practice 21st century learning skills, such as locating, evaluating, and synthesizing online resources. Students are required to find a balance between print and digital resources and utilize a combination of both to support their findings. Students will be required to construct and share online documents through the use of Google Classroom and/or Google Documents/Slides. Students are required to work collaboratively with a partner(s) and demonstrate effective communication skills. This lesson calls for students to use both print and digital resources to develop and respond to critical thinking questions. Students will be instructed to select a presentation tool that allows the inclusion of evidence from multimedia formats, such as Poster Maker, Powtoon, Padlet, Prezi, Glogster, and/or Google Slides. Students need to show thoughtful evidence of website evaluation and create a works cited page that cites the resources used in the lesson. Students should also adhere to and respect the copyright usage rights of materials used in the lesson.*

Assessment: *Student(s) learning will be assessed in a summative format. Students will be evaluated on the inquiry-based questions they establish, the quality of their research and how well they respond to the compelling questions. Student will also be evaluated on their usage of 21st century skills (listening and speaking) and their digital literacy skills. Student learning will be assessed both individually and in the cooperative grouping. There is a rubric attached in the appendix that highlights the specific benchmarks for each step of the summative assessment. Because students will be able to select their visual digital representations for their summative product the criteria for score was left open. Students will also have the opportunity to self assess the quality of the their work. Students are required to submit their work to the teacher via Google Classroom at regular intervals.*

Materials/Resources: List the materials you will use in each learning activity including any technological resources.

1. *Cookie pieces or whole, cut into different shapes and quantities that can to be distributed to students for initiation activity. See Appendix.*
2. *Graphic organizer for note taking. See Appendix. This graphic organizer can be distributed to students via Google Classroom. Students can amend or change the graphic organizer to their specifications. Graphic organizer can also be printed.*
3. *Book: “If the World Were a Village: A Book about the World's People, 2nd Edition (CitizenKid) Hardcover – February 1, 2011*
4. *Rubric for summative assessment*
5. *Links to articles for students inquiry:*

Where to be born index -- Wikipedia

https://en.wikipedia.org/wiki/Where-to-be-born_Index

Human Development Report -- Website

<http://hdr.undp.org/en/content/multidimensional-poverty-index-mpi>

“One-Third of Food Is Lost or Wasted: What Can Be Done?” – article

<http://news.nationalgeographic.com/news/2014/10/141013-food-waste-national-security-environment-science-ngfood/>

“A Family Faces Food Insecurity in America’s Heartland” – video

<http://video.nationalgeographic.com/video/magazine/ngm-hunger-iowa?source=relatedvideo>

“The New Face of Hunger” – article

<http://ngm-beta.nationalgeographic.com/2014/08/articles/new-face-of-hunger/>

“The Future of Food: How to Feed Our Growing Planet”

<http://food.nationalgeographic.com/>

Feeding America--NGO

http://www.feedingamerica.org/hunger-in-america/our-research/?_ga=1.141290933.602595369.1438200547

“Food anthem”--video (commercial)

<http://video.nationalgeographic.com/video/magazine/ngm-food-anthem>

Food, A National Geographic Series

<http://www.nationalgeographic.com/foodfeatures/feeding-9-billion/>

Lesson Development/Instructional Strategies:

Instructional groups:

In this lesson a variety of instructional grouping can be employed. Students can be placed in small cooperative groups for the entire lesson, the initiation phase, lesson and closure. This can or will be followed by whole class teacher facilitation for directions. Educator can also administer directions to students while they are in their cooperative grouping as well.

Students will select a small group or make pairs to complete the inquiry research and product development portion of the lesson. Students can be placed in either hetero or homogenous groupings by the educator or the students can self select their cooperative group at the discretion of the educator.

Lesson initiation: (1 class period)

The initiation of a lesson is important because it helps to set expectations for the students and it helps to establish a purpose for learning. Students will be introduced to the compelling question, *Why are there large regional and national differences in global food security? The objectives should also be stated here.*

During the initiation phase student cooperative groups will be formed. Students can also be introduced to the summative rubric at this time and teacher can facilitate Q and A with students about the lesson.

Educator should use the initial phase to go over class expectations for learning in cooperative groups and appropriate use of technology and behavioral expectations can be reviewed.

- 1. Cookie activity establishment of a purpose for learning and establishment of feelings about global climate change and also food insecurity (see appendix). Depending on class size the cookie, full and pieces will be distributed to the students. Students will record the information about their cookie and decide what the cookie is meant to represent. At the end of the initiation, students will be able to see how the cookie or lack of cookie is representative of our global community and that food insecurity is a real issue.*
- 2. National geographic commercial (see link in materials), this can be optional. Videos are often a great way to engage students and this video can help support student discussion of the compelling question.*
- 3. Students are often engaged by read alouds. The book "If the World Were a Village: A Book about the World's People" is a great way to initiate the topic of global inequality. This book will allow student to think about the global world on a smaller more palatable scale.*

Lesson body: (2 to 3 class periods, approximately)

Students will employ inquiry and digital literacy skills, to support the development of an argumentative response for their visual representations. Students will work in cooperative groups to develop questions for inquiry.

Students will utilize a graphic organizer for note taking. To assist students with the development of teacher like questions or well-developed inquiry questions the graphic organizer will feature the 5 Ws and 1 H format. Due to the fact that student will be able to interact with the workshop on Google Documents it can be amended or altered to suit the group's needs. Students will then access articles and resources provided to them on a shared Google Document. Students will also be required to search for their own digital and print resources to cite.

Once students have developed their inquiry questions and researched their responses, students will select a digital method to present their findings. Student summative product should help to generate awareness about global food security issues, its cause and effect. Students can create a virtual poster, website, video, Google slide show, or a game. Student projects should take an informed action and offer solutions to social

and environmental problems relating to food insecurity. Student presentations should include a personal, local, state or national connection to this lesson.

Lesson closure: Students will present their findings to their class in an oral presentation format. See rubric in appendix A. Students can also share their projects via Google Classroom. Students will be encouraged to share their learning with others, their projects can be displayed on class website which is shared with the community.

****Daily transitions:**

Students are responsible for taking out and returning their computer and headphones each day. Students will be using Google Classroom and will be required to submit responses in Classroom. It is important that students review the rubric each day.

Students Needing Differentiated Instruction:

This lesson can be differentiated in many ways for both students for student who various achievement levels, including IEPs, gifted and talented, struggling learners, and English language learners. First, to differentiate instruction in this lesson for students who may struggle with the content and learning objectives, the teacher can support students by developing inquiry-based questions for students to utilize. Students can also be provided with leveled articles, hard copies so they can be highlighted or marked up to located specific supporting details. Students who are struggling can also be supported by having the teacher create a Google Slide template for their presentation. Students who require academic supports can still be held to high standard but some may require a modified rubric.

In this lesson there will be opportunities for enrichment/high level challenge for student who are advanced learners or gifted/talented. Students who are gifted or talented will be able to develop their own inquiry-based questions to respond to the compelling question. However, as an extra challenge these students can focus their research on a specific country and create a case study about it. High achieving students need to be held to a high standard, one way to do this is to give these students a personalized learning experience that includes creating their own rubric for assessment.

Appendix A Summative Rubric

Global Food Insecurity

Elements of Content

Element	Possible Points	Student's Self/group Score	Teacher's Score and Comments
Presentation demonstrates a thorough response to each student generated question	20		
Presentation includes Imagery, text, or sound that adds to the message and content of presentation	20		
Presentation is organized and follows a sequence that leads to understanding	20		
Spelling and grammar are correct	20		
Conclusion - a paragraph is included that summarizes information	20		

Elements of Research

Element	Possible Points	Student's Self/group Score	Teacher's Score and Comments
Print Sources included and cited	20		
Online Sources included and cited	20		
Images, text, sound are free from copyright restriction	20		
Evidence of thoughtful online site evaluation was conducted	20		
Works cited Page included and formatted correctly	20		

Group Score: _____ Total points 200

Elements of Presentation

Element	Possible Points	Student's Self/group Score	Teacher's Score and Comments
Speaker is prepared	25		
You stand tall and face the audience. You don't "fidget"	15		
Your voice is clear and strong.	15		
Your presentation content is easy to read	25		
You are enthusiastic; you smile and seem interested in your subject	10		
You make eye contact with your audience. You show warmth and make your audience feel comfortable.	10		

Individual score: _____ 100 points total

Appendix B Graphic organizer for inquiry

The 5w and 1H of Inquiry

Compelling question: Why are there large regional and national differences in global food security?

Who

What

Where

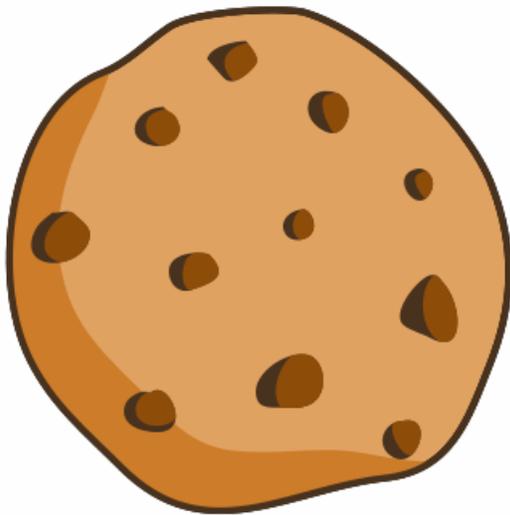
Why

When

How

Resources use: (please list or type)

Appendix C Initiation Activity Cookie Crumbles



- 1. How many cookies did you receive? Did you get more than 1,1 cookie, a partial cookie or none?**

- 2. Why do you think that some groups may have gotten more cookie than others?**

- 3. Does your group feel that distribution of the cookie and its crumbles was fair and equal?**

Works Cited

CT Social Studies Frameworks

<https://drive.google.com/file/d/oB-TvHfzp78GNVmZaTo5UTEVQc28/view>

NCSS ELA Standards for Literacy and Writing

<http://www.corestandards.org/ELA-Literacy/>

Nation C3 Social Studies Standards

<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>

CT Effective Teaching Standards

http://www.connecticutseed.org/wp-content/uploads/2014/05/CCT_Rubric_for_Effective_Teaching-May_2014.pdf