

What can YOU do to fight the War Against Global Food Waste?

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Subject: 7th grade Integrated Literacy/ Social Studies

Time Frame to Allow for Lesson: 60 minutes

Introduction: One way to combat the growing problem of dwindling food resources is to attack the epidemic of waste in modern industrial countries like the United States. This lesson will introduce students to the ideas of British activist Tristram Stuart, who wants the world to stop throwing away so much good food. Students will then look at how much food is thrown away in their own school and then decide what can be done to improve the situation.

Geographic Connections: Globalization and civic action

- GEO 6-7.9 Analyze the ways in which cultural and environmental characteristics vary among various regions of the world
- CIV 6-7.1 Explain specific roles played by citizens
- D4.7.6-8 Assess their individual and collective capacities to take action to address local, regional, and global problems, taking into account a range of possible levers of power, strategies, and potential outcomes.

Vocabulary:

- Resources
- Consumption
- Malnourishment
- Irrigate
- Grassroots initiatives
- Food waste revolution
- Surplus
- Deforestation
- Biodiversity

- Food redistribution charities
- Sustainable

Common Core Content Standards:

- 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.
- Literacy. RL 7.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

Essential (Compelling) Question: Why should students in (*name the school*) join the war against global food waste?

Supporting Questions:

- How does food waste affect us?
- Do we waste food? If so how much?
- Do we waste food more in some environments than others, if so why?
- What can students do to reduce food waste in their home and school environment?

Literacy through the Content Area: Before reading the article, students will engage in generating questions created from reading the title, “Tristram Stuart: Waging War Against Global Food Waste”. Then the students will read the National Geographic article. After reading, they will fill in a graphic organizer with **who, what, where, when, why** and **how** related to the article. Students will then be asked to write down the specific ways, mentioned in the text, that Mr. Stuart influenced change in his community. Finally, students will be asked to write three “I noticed...” statements and three “I wonder....” statements about the reading.

Placement of Lesson within Broader Curriculum/Context: This pair of lessons can be part of a bigger unit on Climate Change and or the problem of Global Food Waste. It can also be used as an awareness lesson in conjunction with lessons on the environment and or civic action. Students will start by journaling about how much and what kind of food is thrown away in their home and how food waste is disposed of in their home. Information will be shared and compared in class using charts and graphs based on the data. The students will be asked to reflect on what happens in the lunchroom related to the amount of food thrown away each day. Next, they will be asked to make predictions about how much food is thrown out in the school

cafeteria. They will make predictions and also be asked to reflect on if they think there will be a difference in the amount of food waste between the grades. (Our school is a 5-8 middle school)

Learner Background: Students will have done the following before this lesson:

- Investigated how food waste has been dealt with in their homes, shared the information in school and collated the data into charts and graphs.
- Predicted how much food is thrown away during their lunch. This data would have also been collated and recorded in to graphs and charts.
- Read the National Geographic article, "[Tristram Stuart: Waging War Against Global Food Waste](#)" by Susan Daugherty (Published October 16, 2014) and done the related reading activities. (Mentioned above)

Objectives for Lesson:

1. Students will be able to explain reasons for food waste in their school.
2. Students will be able to create a chart and/or graph of the data they collected on the food waste during their lunch block.
3. Students will be able to propose a solution to reduce food waste in their school and/or home.

Integration of 21st century skills: Students will use many 21st century skills while participating in this lesson. They will have to gather, analyze and share the data with their peers. In this process they will have to collaborate with their peers and use technology to present their findings. Finally, they will have to propose a solution to the problem and, with permission from the school, implement their solution. This will require students to investigate what happens to the food before and after lunch and find out what the rules/laws are around food preparation and food disposal at school. And then find a ways to communicate this information to the school population, possibly through the school announcements, newspaper and/or posters around school.

Assessment: Student will compare the difference between what they predicted and the actual data collected in a chart and or graph format. They will also write a hypothesis about why there might have been a difference in the data collected compared to their prediction and propose a solution to reduce food waste in school and /or home.

Materials/Resources: Students will need the article "[Tristram Stuart: Waging War Against Global food Waste](#)" by Susan Daugherty, which they can assess online. In addition other materials that might be helpful will be computers, journals, poster paper, rubber gloves, garbage bags, plastic tarps, scales and access to school personal who can help with answering questions about he rules and regulations around the preparation and disposal of food at school.

Lesson Development/Instructional Strategies: For this lesson students will be put into groups of three to four (depending on class size). There should be five groups altogether. There will be one group covering each of the four lunch blocks. The fifth group will interview the lunch personnel, principal and food service director. It will be their job to find out about the rules and regulations regarding the handling and disposing of food in a school environment. The other four groups will each cover one lunch block. During the lunch block they will collect just food waste. For this they should have rubber gloves, plastic bags and scales.

The food waste can either be collected in one container, in separate containers based on type of food or, if more specific data is wanted, each individual students food waste could be collected in plastic bags or another available container. The food waste is measured with a scale and recorded in the form created/ decided on by the class. The whole class should decide the way in which the food waste is to be collected before the groups go to the lunch blocks. It is important that all groups are collecting the food waste in the same way. Each group must decide who is going to do what jobs. There will need to be one or two people who collect the food, and one or two people who interview/talk to the lunch students as to why they are throwing out certain foods.

All students in the group need to make observations during this process.

The next class period students reflect in their journals what they learned through data collection observations and then share these reflections in a discussion with their group members. Note the personal journal reflections could also be a homework assignment depending on the nature of the class and the homework policy of the teacher/school.

Each group will decide the best way to graph and/or chart the data to share with the rest of the class. During the following class time each group will share their data, observations and what they have learned with the whole class. Then everyone will analyze all the data including looking for patterns across grade levels to use in their conclusions and later to help with coming up with a plan to reduce waste in their school.

Students Needing Differentiated Instruction: There are many different ways in which students might struggle with this lesson, use the strategies that have been most helpful in class so far this year. Another resource is to use the strategies suggested in the IEP or 504 Plan. This will be especially important with so many students who have food allergies. Depending on the difficulties some students could be paired with another student instead of working alone OR working in a larger group of four or five other students depending on the size and resources of your classroom. This is the type of lesson in which there should be a place for ALL students to participate.

If students are interested in this subject, encourage them to investigate more! Find out what has been done at other schools. It would be interesting to find out what happens in schools in other countries, which might lead to finding out about cultural differences in having lunch in general. Such as finding out where students have lunch and what they have for lunch in other countries. Students could also further investigate Tristram Stuart and find out how his programs have evolved. Students could also investigate

what happens at local restaurants and their food waste. There are many different directions this lesson could lead students; they need to follow their interests!

Note: This is a very flexible lesson and can be made as simple or complicated as needed depending on the learning outcomes required/needed by the teacher. For example one could simplify this lesson into a simple lunchroom observation or make it more complicated by gathering data over a number of days. Enjoy the discovery!