Reducing Food Waste For The Global Goals

Food Waste Investigations in Numeracy

Subject
Geography, Social Studies, Global Citizenship, Mathematics

Learning Outcome
- Understand the framework of the Global Goals for Sustainable Development
- Stimulate in-depth discussion on food waste among students
- Improved understanding of concepts, deepening skills and competencies through cross-curricular studies
- Inspire students to be mindful in eating practices and eliminating the wasting of food through investigations, to help meet the Global Goals for Sustainable Development

Materials
- Devices for projecting video and displaying article
- Video: [https://www.youtube.com/watch?v=B1pKWOf2yM](https://www.youtube.com/watch?v=B1pKWOf2yM)
- Investigations in Math worksheet (Appendix B)
- Every Plate Tells a Story activity sheets

Lesson Preparation
- Print Appendix B Food Waste Investigation Worksheet
- Ideally pick a date for students to analyse their school cafeteria

Note: This lesson is preferably part of an extension to the “Every Plate Tells A Story” lesson plan, which includes the Plate Survey and the animation film.
Reducing Food Waste
For The Global Goals

For this lesson, students will act as investigators observing the amount of food wasted in the school lunchroom. Students will calculate percentage of food wasted and will present data graphically.

Key Vocabulary
- Sustainability
- Development
- Goal
- Climate
- Consumption
- Quantitative
- Qualitative
- Data
- Evidence
- Impact

Step 1: Introduction to Food Waste
15 mins

Review “Every Plate Tells A Story” Survey
Introduce the lesson by asking students to take a “Gallery Walk” looking at the displayed Every Plate Tells a Story activity sheets from the previous lesson. Ask students to each identify their own plate and consider how much food on the plate was likely thrown away.

Data on Food Waste
Review the facts and data on food loss and waste reduction according to the Food and Agriculture Organization of the United Nations (FAO):

http://www.fao.org/save-food/resources/keyfindings/en/ and


Discuss some of the statistics and examine the graph depicting the per capita loss and waste of food in regions of the world.

Note: Make sure that students know the difference between Food Loss and Food Waste. Highlight that this lesson will focus on Food Waste.

Video
Next, watch video Food Waste Explained: https://www.youtube.com/watch?v=B1-pKWOI2yM

Discuss why Global Citizen created this parody video to help stop the wasting of food in our world.
Collecting and Visualizing Data
For the investigation, students will be gathering data through observations during the lunch period. Students will compare amount of food consumed to the amount of food wasted. As investigators, students should be reminded to

- Diagram,
- detail,
- and accurately depict

their observations in their notebooks. This information will serve as quantitative data. Students can also add qualitative data through use of interviews with cooks, lunch room staff, and students.

Data Evaluation
Following the collection of data, students should be guided to complete calculations and determine the percentage of waste and the amount of waste, then present data in tables and graphs. Evidence to support results should be provided (Appendix B).

Data Calls for Action
Based on results, students can together consider possible school and home initiatives to reduce food loss and waste. Follow-up assessments can be applied over time and results can be compared to measure impact.

Ask students to consider how their food selections could have been acquired from local farms or neighbourhood garden cooperatives. Would this be possible where they live?

Sharing Activity
Encourage students to share their collected data on social media. Link this data to their ideas for reducing food waste.

Share your learnings and ideas on social media and let your students formulate a pledge using the following Hashtags:

- #WorldsLargestLesson
- #TeachSDGs

Tag the World’s Largest Lesson
- @TheWorldsLargestLesson
- @TheWorldsLesson
- @theworldslesson

- Invite students to share their thoughts and ideas https://flipgrid.com/globalvoice
- Add your activity and writing to a global map of learning about the Global Goals: http://worldslargestlesson.globalgoals.org/map
Supporting Resources

This Is a Really Compelling Reason to Cut Down on Food Waste (Global Citizen) https://www.globalcitizen.org/en/content/reducing-food-waste-saves-money/


About the authors

This lesson has been produced as a collaboration between the World’s Largest Lesson and the #TeachSDGs Task Force.

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Appendix A: Global Goals Grid Poster

The Global Goals for Sustainable Development

1. No poverty
2. Zero hunger
3. Good health and wellbeing
4. Quality education
5. Gender equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry innovation and infrastructure
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate action
14. Life below water
15. Life on land
16. Peace Justice and strong institutions
17. Partnerships for the goals
Directions: During a school lunch period, you will be examining the amount of food consumed compared to the amount of food wasted.

1. Select a **representative group** (up to 3 student lunches for each person to observe).
2. Draw images or take photographs of plates of food before they are eaten and after.
3. Use **labels** to describe food and amounts.
4. Calculate totals based on approximate percentages.

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Lunch #1</td>
<td>% Consumed: ______</td>
<td>% Wasted: ______</td>
</tr>
<tr>
<td>Lunch #2</td>
<td>% Consumed: ______</td>
<td>% Wasted: ______</td>
</tr>
<tr>
<td>Lunch #3</td>
<td>% Consumed: ______</td>
<td>% Wasted: ______</td>
</tr>
<tr>
<td>TOTAL</td>
<td>% Consumed: ______</td>
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