



**FOOD WASTE  
WARRIORS**



**GRADES  
6-8**

# How Much Food Is Wasted Each Year?

**STUDENTS WILL LEARN . . .**

- what resources go into producing our food.
- the impact of food waste on the environment.
- ways to reduce food waste both personally and on a larger scale.

# How Much Food Is Wasted Each Year?



## HOW IT WORKS

1. **Watch the slideshow** to introduce the issue of food waste (10–25 minutes).
2. **Conduct a classroom or at-home food audit** so students can SEE just how much is wasted (1 class period plus a lunch period).
3. **Write a creative essay and/or mini-report** that extends their learning about food waste (10–15 minutes to kick off each activity—the rest can be homework).



## What You'll Get

- Thinking About Food Waste slideshow (includes teacher notes)
- Guide to Conducting Food Waste Audits (printable)
- “Destined for Trash” Essay graphic organizer (printable)
- “Behind Our Food Waste” Mini-Report slideshow template (digital)
- Poster (printable)

## Optional Resources

- WWF Science Lesson
- Guidelines for Working With Cafeteria Staff and School Administrators (includes sample letter)
- Teacher Resource on Four Ways to Fight School Food Waste
- Taking the Lesson Home (Resource for Families)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Destined For Trash

I am a \_\_\_\_\_ (name of fruit or vegetable)

**The Facts:**

How much water do you require per week? \_\_\_\_\_

How long does it take to get from planting to harvest? \_\_\_\_\_

What needs to be done to make sure you grow (fertilize, pesticides, staking, pruning, etc.)? \_\_\_\_\_

How much money does it cost to grow one acre of you and your friends? \_\_\_\_\_

Where are you primarily grown (in the US)? \_\_\_\_\_

How far in miles is that from our school? \_\_\_\_\_

**Math time!** A semi truck goes 6.5 miles on one gallon of gas. How many gallons of gas would it take to transport you from where you grew to our school? \_\_\_\_\_

**The Feelings:**

Imagine that it's getting close to harvest time. How do you feel about getting picked? Are you nervous? Excited? \_\_\_\_\_

© 2020 World Wildlife Fund | worldwildlife.org/foodwastewarriors | 8

Name: \_\_\_\_\_ Date: \_\_\_\_\_

How do you hope you'll one day be enjoyed? In a pie? With butter and salt? As a picnic? By a baby tasting your kind of food for the first time? By a guest at a fancy wedding? \_\_\_\_\_

How do you feel as you are loaded into a truck? What is it like in there? What are your thoughts as you travel miles on the highway? \_\_\_\_\_

Now imagine you are at the grocery store waiting to be purchased! What is that like? And how do you feel when you are chosen? \_\_\_\_\_

You sit in the refrigerator for days and days. At last, your purchaser discovers you ... and decides you are too ripe to eat. They dump you in the trash. What are your thoughts and feelings now? \_\_\_\_\_

**Now you're ready to write!**

Based on the things you recorded here, write a first-person creative essay about your experience. Tell your reader the facts about your growth—and your feelings about your journey from field to trash can. \_\_\_\_\_

© 2020 World Wildlife Fund | worldwildlife.org/foodwastewarriors | 9

# Slideshow: Thinking About Food Waste



**Show students exactly how much food is wasted at their school or in their home.**

This slideshow introduces students to the problem of food waste. Teacher notes are included for each slide to deepen discussion. No advance preparation is necessary!

- 1.** You can prepare your students for the slideshow with a quick chat using questions like:
  - \* What percentage of food that you put on your plate do you think you waste?
  - \* What are some reasons you throw away food?
  - \* Do you think food waste is a big problem? Why or why not?
- 2.** Then show the slideshow, reading or paraphrasing the notes included with each slide.
- 3.** Afterward, you may want to discuss “take-aways” with questions like:
  - \* What did you learn from this slideshow that you didn’t know before? Did anything surprise you?
  - \* In what ways does food waste impact the environment?
  - \* What do you think are the best strategies for decreasing food waste?

# Food Audit

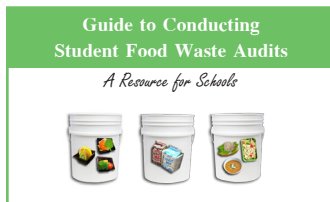
The heart of this program, this memorable activity shows students exactly how much food is wasted at school or in their home.



In this activity, students collect and measure food before it's thrown away, report their data to WWF, and are inspired to consider solutions.

Click here to download the [Guide to Conducting Student Food Waste Audits](#).

This program is super versatile! You can have students do an audit at home for one meal or over several days. In a school setting, students can set up an audit in the cafeteria and record the school's daily food waste, or you can have them eat in the classroom and measure just their class waste. The possibilities are endless.



The Guide to Conducting Student Food Waste Audits includes printables for conducting student interviews about why they are throwing away food and recording the type and weight of food thrown away.

## Online Learning

Encourage students to measure leftover food after two different meals. If they have a kitchen scale, they can use that. If they don't have a scale at home, they can use a plastic container (milk jug with top cut off, disposable food container, etc.). Have students fill the container with leftover food after a meal and mark the line with a Sharpie. Then have them repeat the activity another day and see if their "leftover line" is any lower. If you want, students can take and share pictures of their Meal 1 and Meal 2 leftovers in your virtual classroom, explaining what strategies they employed to decrease their food waste.

Your class can be part of WWF's national research by entering your classroom's audit results in the Food Waste Warriors Data Dashboard.



[Learn More](#) 

## Creative Essay

# Destined For Trash

### Time required:

10-15 minutes to watch and discuss video, 1-3 hours for independent research and writing.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Destined For Trash

I am a \_\_\_\_\_  
(name of fruit or vegetable)

**The Facts:**  
How much water do you require per week? \_\_\_\_\_  
How long does it take to get from planting to harvest? \_\_\_\_\_  
What needs to be done to make sure you grow (fertilizer, pesticides, staking, pruning, etc.)? \_\_\_\_\_  
\_\_\_\_\_

How much money does it cost to grow one acre of you and your friends? \_\_\_\_\_  
Where are you primarily grown (in the US)? \_\_\_\_\_  
How far in miles is that from our school? \_\_\_\_\_

**Math time!** A semi truck goes 6.5 miles on one gallon of gas. How many gallons of gas would it take to transport you from where you grew to our school? \_\_\_\_\_

**The Feelings:**  
Imagine that it's getting close to harvest time. How do you feel about getting picked? Are you nervous? Excited?  
\_\_\_\_\_

**write!**  
8-person creative facts about your journey from field to trash can.  
\_\_\_\_\_

1. Download and print the “Destined For Trash” Essay graphic organizer.
2. Watch the video [Life of a Strawberry](#) as a class. After it is over, you can briefly discuss its message with questions like:
  - \* What do you think the makers of this short film were trying to communicate?
  - \* Was it effective? Why or why not?
  - \* At the end of the video, there was a written statement that “wasting food wastes everything” including “water, labor, fuel, money, and love.” What do you think is meant by this?
3. Now students can write a short creative piece (1-2 pages) from the perspective of a piece of produce like the video illustrates. The essay will be in first person, including factual information about how “they” are grown, plus imaginative reflections on how it would feel to be cultivated and then wasted. To do this, they will:
  - \* conduct research guided by the graphic organizer “Destined For Trash,” filling it out as they go.
  - \* write a creative essay based on their research.

To assess this activity, you could have students trade papers with a partner and answer questions like:

- \* What were some interesting facts you learned about how your partner’s food item is produced?
- \* How did your partner capture the feelings of their food item?
- \* What was your favorite part of this piece? What could be improved?

## Simplify

To simplify this activity, provide internet links where student can find information about their chosen food item:

[USDA site on crop production](#)

[Encyclopedia Britannica on vegetable farming with links to specific veggies](#)

[Encyclopedia Britannica on fruit farming with links to specific fruits](#)

## Amplify

To amplify, have students brainstorm ways to use produce that is just past the “eating raw” stage—think pies, jams, banana bread, pickling, smoothies, and composting! Have them add a special section to the end of their writing project entitled “What I Could Have Become Instead” with instructions about how their item could have been used.

## Online Learning

This assignment works for online learning the same way it would in a classroom— simply have students print their own graphic organizers.

## Mini-Research Project

# Behind Our Food Waste

### Time required:

15 minutes to explain project; 3-6 class periods for independent brainstorming, research, and creating slideshows; 1 class period devoted to presenting projects



1. Download the slideshow template “Behind Our Food Waste Mini-Reports.”
2. Students will choose one aspect of food production (water, labor, pesticides, transportation, soil management, machinery, etc.) or one food recovery strategy (see the EPA’s Food Recovery Hierarchy [here](#)).
3. Have students brainstorm a list of questions they would like to answer about their topic. Here are some examples:

#### If your topic is water, you might want to learn

- \* How many gallons of water are used to grow food each year?
- \* How does water get to farms?
- \* Where does wastewater go?

#### If your topic is composting on the food recovery hierarchy, you might want to learn

- \* How much do Americans compost already?
- \* What can and can’t be composted?
- \* How can compost be used?
- \* Can composting lead to more wasted food?

## Simplify

To simplify this activity, direct students to 2-3 websites (see below) where they can find information about their chosen aspect of food production or food waste recovery. You could have them print and highlight helpful information and/or supervise making the first several slides. The slideshow can be shortened to fewer than 6 slides by simply deleting from the template.

[Water use](#)

[Soil management](#)

[Food Recovery Hierarchy \(follow links for specific strategies\)](#)

## Amplify

To amplify this activity, students can add their own additional slides to slideshow such as a case study of a food recovery initiative.

## Online Learning

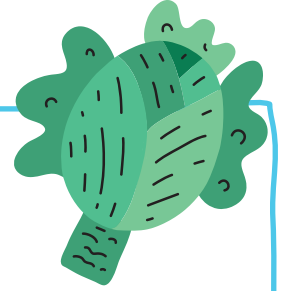
This assignment works for online learning the same way it would in a classroom. For presenting projects, students can share their screens or email their slideshows to you for sharing.

4. Once students have a list of questions they want to answer, they will conduct online research to learn about their chosen topic.
5. Now it's to put the research into a report! Give students access to the slideshow template and copies of the rubric. Students will create short slideshows that organize and communicate their research (about 6 slides). You may want to explain that in a slideshow, some but not all information appears on each slide. Students should save some information for narrating the slideshow, filling in the complete picture of their knowledge. To do this, they can use the notes section that will only be visible to them.
6. When projects are complete, each student will present what they have learned to the class.
7. After presentations are given, you may want to make the connection that behind all of that wasted food are the resources used to produce it ... which means that 30-40% of those resources are spent for nothing! You can also discuss food recovery strategies and which ones students believe can help solve the problem best.

Skills	Expectation	1	2	3	4
Content	Did the researcher stick to the topic?	Covered a lot of topics.	Mostly stuck to one topic.	Stuck to one topic.	Stuck to one topic and connected the different aspects of that topic well.
Research	Did the researcher do adequate research to understand the topic?	Should have done a lot more research.	Did some research, but more information would have helped.	Did good, but not extensive research.	Did extensive research and clearly understood the topic.
Structure	Is slideshow organized in a way that makes sense?	It was somewhat confusing.	Mostly, but there are ways it could have been better.	Yes, each slide was about one topic only.	Yes, each slide was about one topic and the order was logical.
Visual	Slideshow used a mix of text and images. Focus was on content rather than transitions or non-essential bells and whistles.	Text was added to template.	Text and images were added to template.	There was a nice balance of text and images. The choices about text or image made sense.	Professional looking slideshow using a nice balance of text and images but adding other interesting features that added to content understanding.



# Destined For Trash



I am a \_\_\_\_\_  
(name of fruit or vegetable)

## The Facts:

How much water do you require per week? \_\_\_\_\_

How long does it take to get from planting to harvest? \_\_\_\_\_

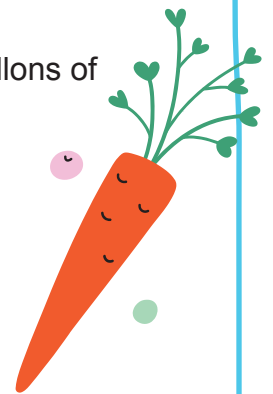
What needs to be done to make sure you grow (fertilizer, pesticides, staking, pruning, etc.)?  
\_\_\_\_\_  
\_\_\_\_\_

How much money does it cost to grow one acre of you and your friends? \_\_\_\_\_

Where are you primarily grown (in the US)? \_\_\_\_\_

How far in miles is that from our school? \_\_\_\_\_

**Math time!** A semi truck goes 6.5 miles on one gallon of gas. How many gallons of gas would it take to transport you from where you grew to our school?  
\_\_\_\_\_



## The Feelings:

Imagine that it's getting close to harvest time. How do you feel about getting picked? Are you nervous? Excited?  
\_\_\_\_\_  
\_\_\_\_\_





How do you hope you'll one day be enjoyed? In a pie? With butter and salt? At a picnic? By a baby tasting your kind of food for the first time? By a guest at a fancy wedding?

---

---

How do you feel as you are loaded into a truck? What is it like in there? What are your thoughts as you travel miles on the highway?

---

---

Now imagine you are at the grocery store waiting to be purchased! What is that like? And how do you feel when you are chosen?

---

---

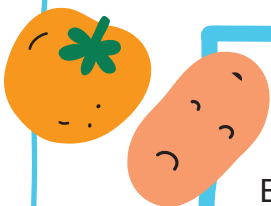
---

You sit in the refrigerator for days and days. At last, your purchaser discovers you ... and decides you are too ripe to eat. They dump you in the trash. What are your thoughts and feelings now?

---

---

---



## Now you're ready to write!

Based on the things you recorded here, write a first-person creative essay about your experience. Tell your reader the facts about your growth—and your feelings about your journey from field to trash can.