



**FOOD WASTE
WARRIORS**



**GRADES
3-5**

Food Waste Hurts Our World

STUDENTS WILL LEARN . . .

- what food waste is.
- how food waste negatively impacts our environment.
- two strategies for reducing food waste at school and at home.

Food Waste Hurts Our World



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. **Do two fun hands-on activities to extend the learning** about food waste (20–40 minutes per activity).



What You'll Get

- “What is Food Waste?” slideshow (includes teacher notes)
- “Welcome to Top Leftover Chef!” printable
- “Grown From Garbage” printable

What Else You'll Need

- Plastic disposable containers (enough for each student to have one)
- Food scale
- Cut bottoms of green onions and/romaine lettuce hearts
- Rulers
- Colored pencils or markers
- Two clear plastic cups per student
- One plastic bowl and one large cup per student
- Potting soil

Name: _____ Date: _____

Welcome to Top Leftover Chef

Have you ever seen a cooking show where chefs are challenged to create a delicious meal out of a random basket of ingredients? Now it's your turn to play along! Eating leftovers from previous meals is a great way to avoid wasting food.

Your challenge is to choose three or more items from the leftover list and create your own great meal idea! You may add up to two extra ingredients.

Leftovers:

- Cooked carrots
- 1/2 head of iceberg lettuce
- Cup of shredded cheddar cheese
- 1 boiled egg
- 3 Tbsp grape jam
- Cooked white rice
- 2 pieces of sausage sausage
- Macaroni salad
- Cooked broccoli
- 6 strawberries
- 1/2 a roasted chicken
- 2 corn on the cob
- 1/2 hamster ham
- 3 bacon strips
- 1 English muffin

How to make _____ (name of meal or snack)

Extra ingredients list:

Recipe (How to make it):

Name: _____ Date: _____

Grown from Garbage

Directions: We are going to reduce food waste and grow food from scraps.

Every other day you will measure and record how much your plant has grown. In the boxes below, draw a picture of your plant. Underneath the picture, record the date and your plant's height.

Make a prediction

I think that in two weeks, my plant will be _____ inches tall.

	Day 1	Day 3	Day 5	Day 7	Day 9
Draw a picture					
Record height					

My prediction

Was your prediction correct? _____

Challenge

How many times do you think you can make more food out of the leftover vegetable bottoms? _____

Slideshow: What is Food Waste?



FOOD WASTE
WARRIORS

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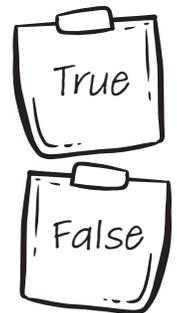
Show students exactly how much food is wasted at their school or in their home.

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. Start a non-judgmental conversation about food waste with questions like:
 - * Have you ever opened your lunch box or picked up your lunch tray and found food you don't like or aren't hungry for?
 - * What do you do with that food?
2. As students share their responses, you might want to ask clarifying and open-ended questions like:
 - * How do you think the food gets to your plate or lunchbox in the first place?
 - * What do you think happens to the food once you put it in the trash?
3. Then show the slideshow, reading or paraphrasing the notes included with each slide.

Two Truths and a Lie

Start by assigning your students to pairs or small groups. Invite them to write three statements about food waste based on the slideshow they just saw.



Two statements should be true, and one statement should be false. When they are finished, students share their statements with the rest of their group and the rest of the class tries to guess which statement is the lie (encourage them to reference the slideshow for why!).

Food Audit

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



1. Arrange for students to eat lunch in the classroom.
2. Before eating, give each student a disposable plastic container.
3. After lunch, have students put any remaining food and drink in the plastic container. Do not include wrappers, sandwich bags, etc.
4. Students take turns weighing their food using the classroom scale.
5. Record individual food waste amounts on the board. Have students calculate the weight of the class's total food waste and record that as well.
6. A few days later, tell students you will be repeating the activity the next day. Brainstorm how you might reduce food waste (ask for smaller portions, let parents know tonight if there is something the student does not like, put uneaten food in backpack for later, share unopened food with friend if your school allows it, etc.).
7. Repeat the activity and see if students can beat their previous individual and class food waste amounts!

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.

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](#) 

Activity

Top Leftover Chef

Time required:

5 minutes to introduce the activity and give directions.

15-20 minutes for students to plan and record their recipe.

10-15 minutes for students to share their creations.

Name: _____ Date: _____

**Welcome to Top Leftover Chef**

Have you ever seen a cooking show where chefs are challenged to create a delicious meal out of a surprise basket of ingredients? Now it's your turn to play along! Eating leftovers from previous meals is a great way to avoid wasting food.

Your challenge is to choose three or more items from the leftover list and create your own great meal idea! You may add up to two extra ingredients.

Leftovers:	How to make _____ (name of meal or snack)
Cooked carrots	Extra ingredients list: _____
½ head of iceberg lettuce	_____
Cup of shredded cheddar cheese	_____
1 boiled egg	_____
3 Tbsp grape jam	_____
Cooked white rice	_____
2 pieces of sausage lasagna	_____
Macaroni salad	_____
Cooked broccoli	_____
6 strawberries	_____
½ a roasted chicken	_____
3 corn on the cob	_____
½ Hershey bar	_____
3 bacon strips	_____
1 English muffin	_____

Recipe (How to make it!):



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1. Download and print the “Welcome To Top Leftover Chef” worksheet.
2. Ask students if they have ever seen a cooking show where chefs are challenged to make a delicious meal using a surprise basket of ingredients. Then discuss using leftovers. Have they or their parents ever made a delicious meal using leftovers? What was it? Discuss how eating leftovers might reduce food waste.
3. Tell students that their challenge is to choose three or more items from the leftovers list on the graphic organizer to plan a delicious meal. Share that they can choose two additional ingredients that aren't on the list, especially if they are ingredients they often have in their kitchens!
4. Now students can work in pairs or small groups to plan their meal. To do this they will use the worksheet to plan and write their recipe, recording the name of meal or snack, two extra ingredients of their choice, and how to make it. Remind them to be careful not to leave out any steps when explaining their recipe.
5. When students have finished, they will tell the class about their meal or snack.

Simplify

To simplify this activity, instead of putting students into pairs or small groups, work together as a class to design a meal from the leftovers. Shorten the list so students aren't overwhelmed with too many choices. Consider sharing an example leftover meal that you create as a model before you work together as a class.

Amplify

To amplify, have students design a handout where they can keep track of the leftovers that their family has for one week. Challenge students to create a visual for their data and use that data to determine how effectively (or not) their family is using leftovers to reduce food waste.

Online Learning

For students learning at home, have students come up with their recipes individually.

Activity

Grown from Garbage

Time required:

5 minutes to brainstorm and introduce the activity.

10 minutes to share the instructions and distribute the scraps and other materials.

5-10 minutes to brainstorm and identify the resources that plants need to grow and why.

5-10 minutes every other day during the growing period to complete printable.



Name: _____ Date: _____

Grown from Garbage

Directions: We are going to reduce food waste and grow food from scraps.

Every other day you will measure and record how much your plant has grown. In the boxes below, draw a picture of your plant. Undersneath the picture, record the date and your plant's height.

Make a prediction
I think that in two weeks, my plant will be _____ inches tall.

	Day 1	Day 3	Day 5	Day 7	Day 9
Draw a picture					
Record Plant Growth					

My prediction
Was your prediction correct? _____

Challenge
How many times do you think you can make more food out of the leftover vegetable bottoms? _____

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1. Brainstorm together what can be done with kitchen scraps instead of throwing them in the trash. Some ideas: composting, making smoothies with overripe fruit or banana bread with brown bananas.
2. Introduce the idea that we can actually grow more food from kitchen scraps.
3. Students can grow green onions or romaine lettuce. You can choose one of these or divide the class in half and try both. We chose them because they are easy to grow and grow quickly!

Use the following instructions (see next page) to help students grow food from scraps. →

Simplify

To simplify this activity, make things more concrete by showing your students the video, [Carrot Regrowing for Kids](#). If time permits, regrow carrots as a class over the next week.

Amplify

To amplify, invite students to learn about how to grow food from other kinds of scraps. Options include carrot tops, garlic cloves, bottoms of onions, bundles of basil, and butts of celery. They can present their findings to the class by bringing in their sprouted scraps or sharing photographs or drawings.

Online Learning

Have students grow food from scraps at home or just demonstrate this yourself, showing them the plant(s) whenever you meet as a class. You can measure them, while students record the height and draw what they see.

Green Onions

Place onion bottom in clear cup of water.

Once roots appear (after about 3-4 days), move onion to cup of potting soil.

Water daily.

HOT TIP: You can use eggshells and/or coffee grounds in your soil to improve its quality and use up even more food waste!



Romaine Lettuce

Place the bottom of a romaine heart in a bowl with ½ inch of water.

Change the water daily.

Keep the bowl in a sunny area.

Once lettuce sprouts (in about 10 days), plant hearts in soil.



1. Download, print, and distribute the “Grown From Garbage” recording sheet to students. Have students write down a prediction about how tall their plant will be in two weeks.
2. Invite students to measure their plant every other day, recording this information on their worksheet along with a drawing of their plant.
3. Next, read the directions or ask a student to. Students will use the worksheet to record the height of the sprout or root. They will draw it every other day and record the sprout or roots’ height.
4. Once students’ plants have grown, students can taste their plants and/or discuss how growing food from “garbage” is a strategy for reducing food waste.

Challenge Answer

Green onion bottoms will yield more onions 3-4 times. Romaine lettuce bottoms will yield more lettuce 1-2 times.

Assessment

To assess these activities, use the printables as easy informal assessment tools. Another option is to use a 3-2-1 reflection where you ask students to identify three things they learned about food waste, two examples of how food waste impacts our environment, and one question they still have about food waste.

Name: _____

Date: _____



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1 boiled egg

3 Tbsp grape jam

Cooked white rice

2 pieces of sausage lasagna

Macaroni salad

Cooked broccoli

6 strawberries

½ a roasted chicken

3 corn on the cob

½ Hershey bar

3 bacon strips

1 English muffin

How to make _____
(name of meal or snack)

Extra ingredients list:

Recipe (How to make it!):



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