





Curriculum Resources on Reducing Food Waste

Facilitator Guide

The Edible Schoolyard Project is pleased to collaborate with the United Nations Environment Programme to present the following educational resources on reducing food waste.



Food waste is a critically important global challenge. According to the 2024 Food Waste Index Report, 783 million people suffer from hunger and yet 1 billion meals are wasted every day. Food loss and waste alone produces 8-10% of total climate warming emissions and lead to a wide range of environmental threats.

Given the severe humanitarian and environmental problems that arise from food waste, it is important for educational institutions to provide students with background information to understand the issue as well as practical ways to reduce food waste on both an individual and community-level.

The following educational resources are intended to be an experiential exploration of the issue of food waste. The lesson series brings students into a kitchen classroom setting that provides a space for learning about the causes and effects of food waste, as well as for developing practical hands-on cooking skills that not only save food from being wasted but also lead to delicious meals. Students are also encouraged to reflect on additional ways they might reduce food waste in both their personal life as well their wider community.

Along with the five-part lesson series, this resource packet includes additional garden and kitchen-based lessons that provide more approaches for tackling food waste, as well as resources for organizing social action projects. All lessons, including the five-part series, can be utilized as stand-alone experiences, allowing for educators to pick and choose the lessons which best align with their goals and contexts.

We hope this resource packet supports you, the educator, in crafting dynamic, engaging, and even joyful learning experiences for your students.



Primary Lesson Sequence

1. [Food Waste Introduction](#)

In this lesson, students will learn how we define food waste (edible food that gets thrown away instead of eaten) and discuss the amount of food wasted in the US (about 1/3 of all produced). We will discuss the parts of the food chain where food is wasted (on the farm, at the grocery store, on consumer level).

Learning Goals and Objectives

- Explore how much food is wasted on average in the U.S.
- Learn how to prepare pancakes with a fruit compote.

2. [Food as a Commodity](#)

In this lesson students will explore what it means for food to be a commodity, what makes food edible but not sellable, and how to make informed decisions with what we choose to eat. Students will prepare a salad using “imperfect” produce.

Learning Goals and Objectives

- Learn ways to repurpose foods before going bad.
- Understand what makes a food edible but not sellable.

3. [Composting vs Landfill](#)

In this lesson, students explore the environmental hazards of landfills and prepare a soup using parts of food that would have otherwise been discarded.

Learning Goals and Objectives

- Learn how to utilize food scraps to prevent personal food waste.
- Understand what happens when you introduce food to landfills.
- Learn how to make vegetable stock.



4. [Flexible Recipes: Savory](#)

In this lesson, students explore how flexible recipes – such as a frittata – can be one strategy for using a wide variety of foods in order to reduce personal food waste.

Learning Goals and Objectives

- Learn ways to introduce repurposed foods, leftovers, and food nearing their expiration into new recipes.
- Understand how flexible recipes differ from precise recipes.

5. [Flexible Recipes: Sweet](#)

In this lesson, students explore how flexible recipes – such as a galette – can be one strategy for using a wide variety of foods in order to reduce personal food waste.

Learning Goals and Objectives

- Learn ways to introduce repurposed foods, leftovers, and food nearing their expiration into new recipes.
- Understand how flexible recipes differ from precise recipes.

Additional Curricular Resources

Garden and Kitchen-Based Resources

1. [Practices of Organic Farming: Compost](#)

In this lesson, students will make a compost pile and learn how composting supports plant growth

2. [Autumn Harvest Soup](#)

In this lesson, students prepare a soup with vegetables harvested from the fall garden while they practice knife skills and learn the basics of making stock.

3. [Create Your Own: Any Organic Greens Pesto](#)

Traditionally, pesto recipes are made with basil. In this recipe, students will experiment with different kinds of greens and herbs to make the classic sauce.



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4. [Create Your Own: Quick Organic Pickles](#)

Pickles are a delicious snack or accompaniment to many different foods. Pickling – the process of fermenting in a salt brine or using vinegar to preserve and flavor vegetables – is believed to be the oldest method of preserving food and dates back to over 4,000 years old. In this lesson, students will learn one of the many techniques to pickle vegetables.

5. [Growing Food From Scraps](#)

It may come as a surprise to many that a lot of the produce will sprout new growth just by putting it in water or soil. This activity explores growing food from the ends and scraps of produce.

6. [Food Memories](#)

Food can be a pathway to our past, our heritage, and our history. One way for us to understand how food can link us to our past is to speak to people who have been around a little longer than we have. The stories, practices, and rituals of our elders can teach us many important lessons. In this lesson, you will explore your kitchen memories of elders and family members that minimized food waste.

Advocacy Resources

1. [Food Waste](#)

In this lesson, students explore the common causes and environmental and community impacts of food waste. They brainstorm potential solutions to reducing food waste, in their own lives and more broadly.

2. [Resources for Social Action Projects](#)

This resource from Edible Schoolyard's Understanding Organic curriculum offers information around what social action projects can achieve, what a social action project is, how to plan a social action project, and some considerations to take when developing a social action project.



General Resources

Key Dates in Food Waste Prevention

As educators plan a learning experience for their students around food waste, they might consider aligning any unit on food waste to occur around the same time as one or more of the following dates:

- [Food Waste Prevention Week](#): typically occurs in the first half of April.
- [Stop Food Waste Day](#): typically occurs during the last week in April.
- [International Day of Awareness on Food Loss and Waste Reduction](#): typically occurs during the last week of September.

Additional Information on Food Waste Prevention

- [UNEP's Food Waste Index Report](#)
- [WWF's Be a Food Waste Warrior](#)
- [USDA's Food Waste FAQ](#)
- [Institute for Self Reliance: Composting Impacts](#)
- [EPA's Municipal Solid Waste Landfills](#)
- [Food Cycle Science's Leachate: The Ugly Truth about Food Waste in Landfills](#)