



# **FOOD WASTE PREVENTION RESOURCE GUIDE SERIES: MEAL PREPPING AND KITS**



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Up to **40% of the food supply** is wasted in the United States. Reducing this staggering number and meeting **national goals** to reduce food waste requires consumers to make meaningful changes to how they buy, store, prepare, and consume food. Yet, food waste remains off the radar for many consumers. According to a **2019 study**, one in five people never consider food waste in their decision-making while eating at home or grocery shopping. More than two-thirds of people never consider food waste while eating out. Providing effective education is a proven strategy to help address this lack of awareness. Consumer education **has the potential** to divert an additional 3.22 million tons of wasted food, prevent 18.7 million metric tons of CO<sub>2</sub> emissions, and provide a financial net benefit of \$15.8 billion.

Increased consumer attention to the issue may also push businesses to operate more responsibly. **The Nashville Food Waste Initiative** (NFWI) aims to provide food waste education to everyone in Nashville, from business owners and staff to educators to students. Originally developed in 2015 as a pilot project by NRDC, NFWI is now led by **Urban Green Lab** (UGL) in partnership with the **Environmental Law Institute** (ELI). UGL offers trainings that include information on how to reduce food waste in classrooms, households, and workplaces.

ELI and UGL collaborated to create the Food Waste Prevention Resource Guide Series to help expand food waste content in UGL trainings and provide ready-to-use resources for other sustainability non-profits or similar organizations creating their own trainings or curriculums.

The Resource Guide Series highlights five **proven** food waste prevention strategies: packaging design and use, date labels, meal prepping and kits, storage and freezing, and plate and portion size. Each Resource Guide covers one of the five topics, includes key tips as well as a list of helpful resources, and is organized into three charts tailored to a different audience—classrooms, households, and workplaces. Some resources appear across multiple charts.

Organized by both resource type (columns) and topic (rows), the Resource Guide Series provides a straightforward way for sustainability educators to find vetted content for building effective, fact-based trainings.

Meal prepping is the process of preparing and/or cooking all or parts of meals ahead of time which can help avoid over-preparing of food, which in turn can lead to food waste if leftovers are not subsequently eaten. In addition, meal prepping can reduce food waste because it entails estimating the portions needed and building a grocery shopping list in advance that accounts for the number of people and meals to be served as well as food already purchased.

Meal kits can help reduce food waste by providing the exact quantities of raw ingredients needed while allowing households and workplaces to vary meals without over-purchasing. However, meal kits can be more expensive per meal than buying meal ingredients at a grocery store. Furthermore, meal kits typically include a lot of packaging, with small portions of ingredients often packaged separately. The packaging may or may not be recyclable, reusable, or incorporate other positive environmental attributes.

NOTES: The Resource Guides provide targeted resources on specific food waste prevention strategies. More free information on food waste prevention, reduction, and recycling, including general overviews, are widely available such as from **USDA, NRDC, ReFED, WRAP** and **World Wildlife Fund**. Additionally, though the Resource Guides largely compile free resources from governments, NGOs, and academics, note that there are also private and/or paid resources that can provide useful information on food waste prevention (e.g., Dana Gunders' **Waste-Free Kitchen Handbook, LeanPath**).



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# MEAL PREPPING AND KITS: CLASSROOMS

Meal prepping is preparing all or parts of meals ahead of time which entails estimating portions in advance and building a focused shopping list, thereby reducing the likelihood of overpreparation and over-purchasing that can lead to waste. Meal kits can help reduce food waste by providing the exact quantities of raw ingredients needed, but they also can be more expensive and include a lot of packaging.

The table below compiles free resources for teaching classrooms about sustainable choices to reduce food waste through meal prepping and meal kits.

# KEY TAKEAWAYS FOR MEAL PREPPING AND KITS IN CLASSROOMS

## When teaching about meal prepping and kits, educators should be able to:

- ▶ Explain that food waste contributes to climate change through unnecessary use of energy and resources, as well as emissions generated during landfill decay.
- ▶ Explain how a lack of meal prepping can lead to food waste.
- ▶ Define meal prepping and explain the concept of meal kits.
- ▶ Explain that meal prepping and the use of meal kits can help correctly portion food and help avoid over-buying, which in turn can reduce food waste (although often with a trade-off of increasing purchased packaging).
- ▶ Share that families can work together to prep meals (e.g., check what is already in the refrigerator, make a shopping list, put individual servings into containers).
- ▶ Share that families can select meal kits together that fit their needs and preferences.
- ▶ Educate students about how they can engage with elected officials and other community members to encourage sustainable practices such as reducing food waste.
- ▶ Help students understand the impacts of their own actions and how they can discuss and help implement sustainable practices at home.

“Training educators to bring a sustainable lens to the classroom is crucial for culture change in a community. If we want to push the dial for sustainability in a meaningful way, we need to ensure educators have the confidence and tools to deepen the standards they are already teaching while connecting to the real world outside of the classroom.”

- CHRISTINA LANGONE, DIRECTOR OF EDUCATION, URBAN GREEN LAB



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Key Resources on Food Waste

Lesson Plans & Classroom Activities

WWF, [\*Be a Food Waste Warrior\*](#) (n.d.): K-12 lessons, activities, and resources that educators can use to teach about the environmental impacts of food waste—organized by age group.

Toolkits & Similar Resources

U.S. EPA, [\*Too Good to Waste Implementation Guide and Toolkit\*](#) (n.d.): Comprehensive toolkit that provides strategies and resources for consumers and educators to engage in food waste reduction activities.

ReFED, [\*Resources & Guides\*](#) (n.d.): Compilation of online food waste tools that includes a food waste monitor, solutions database, impact calculator, and policy finder.

Reports & Articles

NRDC, [\*Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill\*](#) (2017): Seminal report on food waste that includes a thorough description of the problem, recent progress, and emerging solutions.

Rubicon, [\*Food Waste in America: Facts and Statistics\*](#) (2023): Primer on food waste in America that includes statistics and recommendations.

Bloomberg, [\*The US Has a Food Waste Problem and It's Getting Worse\*](#) (2023): Article that provides an overview of food waste trends and key numbers.

Creative Media

Our Changing Climate, [\*Food Waste Causes Climate Change. Here's How We Stop it.\*](#) (2020): Video that provides key food waste statistics and possible avenues for change.

### Lesson Plans & Classroom Activities

MSNBC, [\*Teaching Kids to Waste Less Food\*](#) (2015): Guide that K-12 educators can use to teach about food waste generally (not specific to meal prepping), including conversation starters, lessons and activities.

### Creative Media

Shelie Miller, University of Michigan, Sustainable Food Systems Initiative, [\*Can Meal Kit Services Actually be Green?\*](#) (2019): Lecture that addresses the greenhouse gas emissions associated with every phase of producing meals from meal kits compared to grocery shopping.

### Toolkits & Similar Resources

Gee et al., [\*Deliver Me from Food Waste: Model Framework for Comparing the Energy Use of Meal-Kit Delivery and Groceries\*](#) (2019): Academic article that concludes meal kit delivery system energy requirements could be reduced to less than traditional grocery shopping if low-impact packaging is used and grocery trips are reduced.

### Reports & Articles

Fraser et al., [\*Meal Kits in the Family Setting: Impacts on Family Dynamics, Nutrition, Social and Mental Health\*](#) (2022): Academic study that examines how meal kits reduce caregivers' mental loads, enhance family participation, reduce food waste, and provide nutritionally-dense and correctly-portioned meals.

Linchpin SEO, [\*Trends Shaping The Meal Kit Industry and Market Outlook\*](#) (2023): Article that lists top ten trends within the meal kit industry, and includes industry statistics and growth projections.

Heard et al., [\*Comparison of Life Cycle Environmental Impacts from Meal Kits and Grocery Store Meals\*](#) (2019): Academic article that compares the life cycle environmental impacts associated with five dinner recipes from meal kits as compared to grocery shopping.

## Toolkits & Similar Resources

NRDC Save the Food, [\*Understanding Meal Prepping\*](#) (2023): Resource that provides background information on meal “prep” which includes preparing all or part of meals in advance.

NRDC Save the Food, [\*Meal Prep Mate\*](#) (2023): Online tool that helps users avoid food waste by “prepping” which entails preparing all or parts of meals in advance.

## Reports & Articles

Attivo Culinary, [\*Meal Prepping vs. Meal Planning: What’s the Difference?\*](#) (2022): Blog that explains the difference between and compares the pros and cons of meal prepping and meal planning.

U.S. News, [\*How to Save Money by Meal Prepping\*](#) (2022): Article that describes ways to save money by meal planning.

NRDC, [\*10 Easy Tips for Meal Planning\*](#) (2016): Article that lists ten easy tips for planning meals in advance.

The Fit Cook, [\*How Much Does a Meal Prep Cost?\*](#) (2023): Article that describes meal prep cost and food waste benefits, as well as the cost of meal kit services.

Scripps, [\*How to Get Your Kids Cooking & into Meal Prepping\*](#) (n.d.): Article that discusses positive ways to engage kids in meal prep.

## Creative Media

Josh Curtis, [\*How to Become a Meal Prep Pro in 2023 | The Beginner’s Guide to Meal Prep\*](#) (2023): Overview that discusses meal prepping, including cost savings, useful kitchen items, and helpful strategies.

### Lesson Plans & Classroom Activities

NRDC Save the Food, [\*Store It - Interactive Storage Guide\*](#) (2023): Web-based interactive storage guide that allows users to get tailored information on storage of specific food items.

WWF, [\*The No Food Waste Game\*](#) (2020): Educational game for students that challenges players to think of different ways to prevent food waste generally.

### Toolkits & Similar Resources

NRDC Save the Food, [\*Understanding Meal Prepping\*](#) (2023): Resource that provides background information on meal “prep” which entails preparing all or parts of meals in advance.

Good Housekeeping, [\*A Beginner’s Guide on How to Meal Prep for the Week\*](#) (2023): Guide that explains how to meal prep to save time and money, including suggestions for containers and prepping apps.

### Reports & Articles

The Scholarship System, [\*5 Ways Students Can Get Involved in Politics \(And Why They Should\)\*](#) (2023): Blog that explores ways students can be politically active and engage with elected officials and community members.

### Creative Media

MinuteFood, [\*Are Meal Kits Environmentally Friendly?\*](#) (2023): Video that investigates the environmental impacts (e.g., greenhouse gas emissions) of meal kits relative to grocery store shopping.

USDA, [\*Plan Ahead to Reduce Food Waste\*](#) (2021): Short video that addresses the link between food waste and climate change and why planning can reduce food waste.





	Lesson Plans & Classroom Activities	Reports & Articles	Creative Media
Elementary School	<p>World Wildlife Fund, <a href="#"><i>What is Food Waste? (Grades K-5)</i></a> (n.d.): Slides that include presenter notes for teaching elementary students about food waste and what they can do to reduce it.</p>		<p>PBS, <a href="#"><i>Kids Go Green: Reducing Food Waste</i></a> (n.d.): Video that offers solutions to plate waste.</p>
Middle School	<p>World Wildlife Fund, <a href="#"><i>What is Food Waste? Grades 6-12</i></a> (n.d.): Slides that include presenter notes for teaching middle and high school students about the environmental impacts of food waste and how to reduce food waste at home and school.</p>	<p>MarketLine, <a href="#"><i>The Meal Kit Industry Boomed in 2020 and Will Continue to Thrive Beyond the Pandemic</i></a> (2021): Article that describes the impact of the pandemic on the growth of the meal kit industry and its projected market growth.</p>	



## Lesson Plans & Classroom Activities

World Wildlife Fund, [\*What is Food Waste? \(Grades 6-12\)\*](#) (n.d.): Slides that include presenter notes for teaching middle and high school students about the environmental impacts of food waste and how to reduce food waste at home and school.

Foodspan & John Hopkins Center for a Livable Future, [\*Our Wasted Food\*](#) (2023): 50-minute lesson plan that teaches students about food waste and possible solutions, with extension projects that will further empower students to take action.

## Toolkits & Similar Resources

Utah State University, [\*Food Waste Prevention Part 2: Meal Planning\*](#) (n.d.): Website that outlines meal planning steps, tips, printable templates, and recommended apps.

U.S. EPA, [\*Planning and Shopping Tips\*](#) (2023): Website that provides key considerations for meal planning and grocery shopping to help households reduce food waste.

Stop Food Waste, [\*Back to School – Tips on How to Avoid School Lunchbox Food Waste\*](#) (n.d.): Website that gives tips to parents to reduce food waste from kids' lunches, including advice on planning, involving kids, and keeping track of food consumption patterns.

## Reports & Articles

Michigan State University Extension, [\*Meal Planning Can Improve Health and Reduce Food Waste\*](#) (2018): Article that provides steps to begin meal planning to save money and time, improve health, and reduce food waste.

CNET, [\*Are Meal Kits Now Cheaper Than Grocery Shopping? We Did the Math to Find Out\*](#) (2023): Article that discusses a methodology for comparing the cost per serving of the same meal from a meal kit service versus groceries, including a discussion of environmental costs, packaging, and waste.

University of Michigan, [\*Those Home-Delivered Meal Kits are Greener Than You Thought, New Study Finds\*](#) (2019): Article that addresses new study that finds despite the packaging, meal kits have an overall lower carbon footprint than the same meals purchased at a grocery store.

## Creative Media

Shelie Miller, University of Michigan, Sustainable Food Systems Initiative, [\*Can Meal Kit Services Actually be Green?\*](#) (2019): Lecture that addresses the greenhouse gas emissions associated with every phase of producing meals from meal kits compared to grocery shopping.

### High School

For more information: Linda Breggin, ELI Senior Attorney ([breggin@eli.org](mailto:breggin@eli.org)) and Todd Lawrence, UGL Executive Director ([todd@urbangreenlab.org](mailto:todd@urbangreenlab.org)).



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# MEAL PREPPING AND KITS: HOUSEHOLDS

Meal prepping is preparing all or parts of meals ahead of time which entails estimating portions in advance and building a focused shopping list, thereby reducing the likelihood of overpreparation and over-purchasing that can lead to waste. Meal kits can help reduce food waste by providing the exact quantities of raw ingredients needed, but they also can be more expensive and include a lot of packaging.

The table below compiles free resources for teaching households about sustainable choices to reduce food waste through meal prepping and meal kits.



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# KEY TAKEAWAYS FOR MEAL PREPPING AND KITS IN HOUSEHOLDS

## When teaching about meal prepping and kits, educators should help households:

- ▶ Understand that food waste contributes to climate change through unnecessary use of energy and resources, as well as emissions generated during landfill decay.
- ▶ Understand how a lack of meal prepping can lead to food waste.
- ▶ Understand the concept of meal prepping and meal kits.
- ▶ Learn how meal prepping and meal kits not only reduce food waste but can save money and time as well.
- ▶ Learn how families can work together to prep meals (e.g., check what is already in the refrigerator, make a shopping list, put individual servings into containers).
- ▶ Understand that families can select meal kits together that fit their needs and preferences.
- ▶ Evaluate the impacts of their own actions and how they can adopt more sustainable practices at home and encourage businesses, schools, and other institutions to do the same.

"Educating residents to find simple, sustainable solutions within their homes impacts the entire city. Once sustainability has been integrated into the everyday lives and actions of households, that knowledge then pours into our relationships, neighborhoods, and communities."

- KARISSA HAMPTON, SUSTAINABLE HOUSEHOLDS MANAGER, URBAN GREEN LAB



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Key Resources on Food Waste

Reports & Case Studies

NRDC, [\*Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill\*](#) (2017): Seminal report on food waste that includes a thorough description of the problem, recent progress, and emerging solutions.

Creative Media

Our Changing Climate, [\*Food Waste Causes Climate Change. Here's How We Stop it.\*](#) (2020): Video that provides key food waste statistics and possible avenues for change.

Ready-to-Use Resources

ReFED, [\*Resources & Guides\*](#) (n.d.): Compilation of online food waste tools that includes a food waste monitor, solutions database, impact calculator, and policy finder.

Toolkits & Similar Resources

U.S. EPA, [\*Too Good to Waste Implementation Guide and Toolkit\*](#) (n.d.): Comprehensive toolkit that provides strategies and resources for consumers and educators to engage in food waste reduction activities.

Articles

Rubicon, [\*Food Waste in America: Facts and Statistics\*](#) (2023): Primer on food waste in America that includes statistics and recommendations.

Bloomberg, [\*The US Has a Food Waste Problem and It's Getting Worse\*](#) (2023): Article that provides an overview of food waste trends and key numbers.



## Overview of Meal Kits

### Reports & Case Studies

ReFED, [\*Meal Kits\*](#) (n.d.): Report that addresses the potential of meal kits to reduce consumer food waste, detailing challenges, stakeholder actions, and implementation metrics.

Fraser et al., [\*Meal Kits in the Family Setting: Impacts on Family Dynamics, Nutrition, Social and Mental Health\*](#) (2022): Academic study that examines how meal kits reduce caregivers' mental loads, enhance family participation, reduce food waste, and provide nutritionally-dense and correctly-portioned meals.

Progressive Grocer, [\*Almost Half of Americans Have Tried Meal Kits\*](#) (2021): Report that addresses the growth trajectory of the meal kit industry and discusses the meal kit benefits that most appeal to consumers.

### Articles

Grist, [\*Should I Trade My Grocery Trips for a Meal Kit Subscription?\*](#) (2019): Article that evaluates the sustainability of meal kits and offers strategies to reduce food waste associated with grocery shopping practices.

CNET, [\*Are Meal Kits Now Cheaper Than Grocery Shopping? We Did the Math to Find Out\*](#) (2023): Article that discusses a methodology for comparing the cost per serving of the same meal from a meal kit service versus groceries, including a discussion of environmental costs, packaging, and waste.

Linchpin SEO, [\*Trends Shaping The Meal Kit Industry and Market Outlook\*](#) (2023): Article that lists top ten trends within the meal kit industry, and includes industry statistics and growth projections.

### Creative Media

CNET Home, [\*Choosing the Right Meal Kit\*](#) (2022): Video that introduces strategies for choosing the right meal kit and reviews six popular services.



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## Environmental Benefits of Meal Kits

### Reports & Case Studies

University of Michigan, [\*Those Home-Delivered Meal Kits are Greener Than You Thought, New Study Finds\*](#) (2019): Article that addresses new study that finds despite the packaging, meal kits have an overall lower carbon footprint than the same meals purchased at a grocery store.

Heard et al., [\*Comparison of Life Cycle Environmental Impacts from Meal Kits and Grocery Store Meals\*](#) (2019): Academic article that compares the life cycle environmental impacts associated with five dinner recipes from meal kits as compared to grocery shopping.

### Ready-to-Use Resources

Gee et al., [\*Deliver Me from Food Waste: Model Framework for Comparing the Energy Use of Meal-Kit Delivery and Groceries\*](#) (2019): Academic article that concludes meal kit delivery system energy requirements could be reduced to less than traditional grocery shopping if low-impact packaging is used and grocery trips are reduced.

### Toolkits & Similar Resources

RE:Source, [\*Meal Kits and Grocery Food Delivery\*](#) (n.d.): Guide for meal kit shopping and handling that includes tips for insulating food and managing packaging waste.

### Articles

FoodBoxHQ, [\*Meal Kits & The Environment: How to Find an Eco-Friendly Meal Kit + Our Favorites\*](#) (2020): Guidance that informs consumers about choosing an eco-friendly meal kit.

Shrink That Footprint, [\*Meal Kits - The Green Revolution in Your Kitchen\*](#) (n.d.): Article that explains why consumers should choose eco-friendly meal kits, as well as descriptions and reviews of meal kit options.

### Creative Media

MinuteFood, [\*Are Meal Kits Environmentally Friendly?\*](#) (2023): Video that investigates the environmental impacts (e.g., greenhouse gas emissions) of meal kits relative to grocery store shopping.

Shelie Miller, University of Michigan, Sustainable Food Systems Initiative, [\*Can Meal Kit Services Actually be Green?\*](#) (2019): Lecture that addresses the greenhouse gas emissions associated with every phase of producing meals from meal kits compared to grocery shopping.

USDA, [\*Plan Ahead to Reduce Food Waste\*](#) (2021): Short video that addresses the link between food waste and climate change and why planning can reduce food waste.



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## Meal Prepping Overview

### Toolkits & Similar Resources

NRDC Save the Food, [\*Understanding Meal Prepping\*](#) (2023): Resource that provides background information on meal “prep” which includes preparing all or part of meals in advance.

Good Housekeeping, [\*A Beginner’s Guide on How to Meal Prep for the Week\*](#) (2023): Guide that explains how to meal prep to save time and money, including suggestions for containers and an prepping apps.

### Articles

The Fit Cook, [\*How Much Does a Meal Prep Cost?\*](#) (2023): Article that describes meal prep cost and food waste benefits, as well as the cost of meal kit services.

Attivo Culinary, [\*Meal Prepping vs. Meal Planning: What’s the Difference?\*](#) (2022): Blog that explains the difference between and compares the pros and cons of meal prepping and meal planning.

U.S. News, [\*How to Save Money by Meal Prepping\*](#) (2022): Article that describes ways to save money by meal planning.

### Creative Media

Josh Curtis, [\*How to Become a Meal Prep Pro in 2023 / The Beginner’s Guide to Meal Prep\*](#) (2023): Overview that discusses meal prepping, including cost savings, useful kitchen items, and helpful strategies.



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## Ready-to-Use Resources

NRDC Save the Food, [Meal Prep Mate](#) (n.d.): Meal prep guide and calculator that creates personalized shopping lists and portions meals to reduce plate waste.

WRAP, [How Do I Create Flexible and Simple Meal Plans?](#) (n.d.): Guide that addresses creating effective meal plans, including how to plan around a budget and choose meals to prepare.

NRDC Save the Food, [The Guestimator](#) (n.d.): Calculator that estimates portion-sizes for dinner parties.

## Creative Media

Love Food Hate Waste, [Plan Like a Boss!](#) (2016): Short video that provides tips for meal planning to reduce food waste and save time and money.

## Toolkits & Similar Resources

Utah State University, [Food Waste Prevention Part 2: Meal Planning](#) (n.d.): Website that outlines meal planning steps, tips, printable templates, and recommended apps.

Stop Food Waste, [Back to School – Tips on How to Avoid School Lunchbox Food Waste](#) (n.d.): Website that gives tips to parents to reduce food waste from kids' lunches, including advice on planning, involving kids, and keeping track of food consumption patterns.

Food Rescue Maine, [Try Meal Prepping To Stop Wasting Food – Save Money And Time, Too!](#) (2021): Website that lays out steps for creating a meal prepping plan with links to supporting tools and guides.

## Articles

Help! We've Got Kids, [10 Tips for Getting Kids Involved in Meal Prep](#) (2017): Article that includes a list of ten tips for how to involve kids in meal prep and teach valuable life skills.

NRDC, [10 Easy Tips for Meal Planning](#) (2016): Article that lists ten easy tips for planning meals in advance.

Stop Food Waste, [Meal Planning](#) (n.d.): Article that addresses ways to reduce food waste and save money through meal planning.

Scripps, [How to Get Your Kids Cooking & into Meal Prepping](#) (n.d.): Article that discusses positive ways to engage kids in meal prep.

For more information: Linda Breggin, ELI Senior Attorney ([breggin@eli.org](mailto:breggin@eli.org)) and Todd Lawrence, UGL Executive Director ([todd@urbangreenlab.org](mailto:todd@urbangreenlab.org)).



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# MEAL PREPPING AND KITS: WORKPLACES

Meal prepping is preparing all or parts of meals ahead of time which entails estimating portions in advance and building a focused shopping list, thereby reducing the likelihood of overpreparation and over-purchasing that can lead to waste. Meal kits can help reduce food waste by providing the exact quantities of raw ingredients needed, but they also can be more expensive and include a lot of packaging.

The table below compiles free resources for teaching workplaces about sustainable choices to reduce food waste through meal prepping and meal kits.



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# KEY TAKEAWAYS FOR MEAL PREPPING AND KITS IN **WORKPLACES**

## When teaching about meal prepping and kits, educators should help workplaces:

- ▶ Understand that food waste contributes to climate change through unnecessary use of energy and resources, as well as emissions generated during landfill decay.
- ▶ Understand the components of meal prepping and meal kit basics, including environmental benefits, cost, and range of options.
- ▶ Understand how meal prepping can help workplaces meet sustainability goals if implemented in connection with businesses' events, meetings and on-site food service.
- ▶ Educate their employees about the benefits of meal prepping and meal kits.
- ▶ Apply lessons learned from case studies of businesses in similar sectors that have made the switch to more sustainable practices for meal prepping.
- ▶ Understand the ability of workplaces to reduce food waste through sustainable choices and knowledge-sharing within their workforce, customer base, and business communities.

"It's a wonderful experience to distill complex scientific information into tangible actions for citizens to digest and utilize in their own way. If an attendee walks away from one of my trainings doing just one or two new sustainable activities that add value to their life, that's a huge win. Connecting people to resources in sustainability that are vetted and accurate is one of the best things we can do to empower them to make long-lasting changes."

- **JACQUELINE GOODWIN, ASSISTANT DIRECTOR OF WORKPLACES, URBAN GREEN LAB**



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Key Resources on Food Waste

Reports & Case Studies

NRDC, *Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill* (2017): Seminal report on food waste that includes a thorough description of the problem, recent progress, and emerging solutions.

Creative Media

Our Changing Climate, *Food Waste Causes Climate Change. Here's How We Stop it.* (2020): Video that provides key food waste statistics and possible avenues for change.

Ready-to-Use Resources

ReFED, *Resources & Guides* (n.d.): Compilation of online food waste tools that includes a food waste monitor, solutions database, impact calculator, and policy finder.

The Chancery Lane Project, *Reducing Supply Chain Food Waste* (2022): Model contractual clause that can be used by businesses to reduce food waste in their supply chains in order to reduce greenhouse gas emissions and realize financial benefits.

Toolkits & Similar Resources

U.S. EPA, *Too Good to Waste Implementation Guide and Toolkit* (n.d.): Comprehensive toolkit that provides strategies and resources for consumers and educators to engage in food waste reduction activities.

Articles

Rubicon, *Food Waste in America: Facts and Statistics* (2023): Primer on food waste in America that includes statistics and recommendations.

Bloomberg, *The US Has a Food Waste Problem and It's Getting Worse* (2023): Article that provides an overview of food waste trends and key numbers.



## Reports & Case Studies

ReFED, [\*Meal Kits\*](#) (n.d.): Report that addresses the potential of meal kits to reduce consumer food waste, detailing challenges, stakeholder actions, and implementation metrics.

Morning Consult, [\*Why Meal Planners Are an Attractive Audience for Food & Beverage Brands\*](#) (2022): Survey that shows the demographics of meal planners and meal kit usage in the U.S.

Fraser et al., [\*Meal Kits in the Family Setting: Impacts on Family Dynamics, Nutrition, Social and Mental Health\*](#) (2022): Academic study that examines how meal kits reduce caregivers' mental loads, enhance family participation, reduce food waste, and provide nutritionally-dense and correctly-portioned meals.

Progressive Grocer, [\*Almost Half of Americans Have Tried Meal Kits\*](#) (2021): Report that addresses the growth trajectory of the meal kit industry and discusses the meal kit benefits that most appeal to consumers.

## Toolkits & Similar Resources

RE:Source, [\*Meal Kits and Grocery Food Delivery\*](#) (n.d.): Guide for meal kit shopping and handling that includes tips for insulating food and managing packaging waste.

NRDC Save the Food, [\*Understanding Meal Prepping\*](#) (2023): Resource that provides background information on meal "prep" which includes preparing all or part of meals in advance.

## Creative Media

CNET Home, [\*Choosing the Right Meal Kit\*](#) (2022): Video that introduces strategies for choosing the right meal kit and reviews six popular services.

## Articles

Grocery Dive, [\*The Newest Trend in Meal Kits: School Lunches\*](#) (2019): Article that explores increasing consumer interest in kid-friendly meal kit services.

CNET, [\*Are Meal Kits Now Cheaper Than Grocery Shopping? We Did the Math to Find Out\*](#) (2023): Article that discusses a methodology for comparing the cost per serving of the same meal from a meal kit service versus groceries, including a discussion of environmental costs, packaging, and waste.

Linchpin SEO, [\*Trends Shaping The Meal Kit Industry and Market Outlook\*](#) (2023): Article that lists top ten trends within the meal kit industry, and includes industry statistics and growth projections.

MarketLine, [\*The Meal Kit Industry Boomed in 2020 and Will Continue to Thrive Beyond the Pandemic\*](#) (2021): Article that describes the impact of the pandemic on the growth of the meal kit industry and its projected market growth.

## Reports & Case Studies

University of Florida, [\*Fully Recyclable Packaging Makes Consumers Feel Better about Meal Kits\*](#) (2021): Study that finds that consumers prefer meal kits with organic, local and pre-cut ingredients and recyclable packaging.

University of Washington, [\*Grocery Delivery Service is Greener than Driving to the Store\*](#) (2013): Report that compares carbon emissions of grocery delivery services to individual household trips, and includes strategies for service providers to reduce emissions.

Grocery Dive, [\*Reusable Boxes Aim to Reduce Meal Kit Packaging Waste\*](#) (2019): Case study that reveals how one company developed reusable shipping containers for meal kit companies to reduce packaging waste.

Waste360, [\*Fresh Prep's Answer to Meal Kit Packaging Pileup\*](#) (2021): Case study that explores how one company developed “Zero Waste Meal Kits.”

## Ready-to-Use Resources

Gee et al., [\*Deliver Me from Food Waste: Model Framework for Comparing the Energy Use of Meal-Kit Delivery and Groceries\*](#) (2019): Academic article that concludes meal kit delivery system energy requirements could be reduced to less than traditional grocery shopping if low-impact packaging is used and grocery trips are reduced.

## Creative Media

MinuteFood, [\*Are Meal Kits Environmentally Friendly?\*](#) (2023): Video that investigates the environmental impacts (e.g., greenhouse gas emissions) of meal kits relative to grocery store shopping.

Shelie Miller, University of Michigan, Sustainable Food Systems Initiative, [\*Can Meal Kit Services Actually be Green?\*](#) (2019): Lecture that addresses the greenhouse gas emissions associated with every phase of producing meals from meal kits compared to grocery shopping.

## Articles

Forbes, [\*Five Ways to Make Your Delivery Business More Sustainable\*](#) (2021): Article that lists five tips for decreasing the carbon footprint of delivery services, including planning greener delivery routes and using alternative fuel vehicles.

Sifted, [\*What are Meal Kit Startups Doing to Solve Their Excess Packaging Problem?\*](#) (2021): Article that discusses problems with the meal kit industry’s use of single-use packaging and how meal kit startups are reducing packaging waste.

Smithsonian Magazine, [\*Meal Kit Delivery May Not Actually Be That Bad for the Environment\*](#) (2019): Article that reports on a study of the greenhouse gas emissions associated with every phase of producing meals from meal kits compared to grocery shopping.

## Background on Meal Prepping

### Toolkits & Similar Resources

Good Housekeeping, [\*A Beginner's Guide on How to Meal Prep for the Week\*](#) (2023): Guide that explains how to meal prep to save time and money, including suggestions for containers and an prepping apps.

### Articles

U.S. News, [\*How to Save Money by Meal Prepping\*](#) (2022): Article that describes ways to save money by meal planning.

NRDC, [\*10 Easy Tips for Meal Planning\*](#) (2016): Article that lists ten easy tips for planning meals in advance.

The Fit Cook, [\*How Much Does a Meal Prep Cost?\*](#) (2023): Article that describes meal prep cost and food waste benefits, as well as the cost of meal kit services.

### Creative Media

Josh Curtis, [\*How to Become a Meal Prep Pro in 2023 | The Beginner's Guide to Meal Prep\*](#) (2023): Overview that discusses meal prepping, including cost savings, useful kitchen items, and helpful strategies.

## Meal Prepping Resources

### Ready-to-Use Resources

NRDC Save the Food, [\*Meal Prep Mate\*](#) (2023): Online tool that helps users avoid food waste by “prepping” which entails preparing all or parts of meals in advance.

WWF, [\*Hotel Kitchen: Fighting Food Waste in Hotels\*](#) (2017): Toolkit that challenges the hotel industry to prevent food waste, donate what cannot be prevented and divert what remains.

WWF, [\*A Toolkit for Communicating Food Waste to Guests\*](#) (n.d.): Step-by-step guide that helps communicate food waste messages to guests for food and beverage program directors, restaurant general managers, guest service managers, etc.

### Toolkits & Similar Resources

Utah State University, [\*Food Waste Prevention Part 2: Meal Planning\*](#) (n.d.): Website that outlines meal planning steps, tips, printable templates, and recommended apps.

Stop Food Waste, [\*Meal Planning\*](#) (n.d.): Article that addresses ways to reduce food waste and save money through meal planning.

### Creative Media

USDA, [\*Plan Ahead to Reduce Food Waste\*](#) (2021): Short video that addresses the link between food waste and climate change and why planning can reduce food waste.

### Articles

Agricultural Climate Network, [\*How Do Grocery and Meal Kit Deliveries Impact the Carbon Footprint of Our Food?\*](#) (2021): Article that discusses consumers’ perceptions of grocery and meal kit delivery services and differences between the environmental impact of different delivery business models.

Leanpath, [\*11 Ways to Crack the Catering Food Waste Code\*](#) (2017): Blog post that contains general guidance on how caterers can reduce food waste including through planing and portioning.

PCMA, [\*What Meeting Planners Can Do to Reduce Food Waste\*](#) (2019): Article that includes specific strategies for meeting planners to reduce food waste.

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