

# Lesson 21: Food Waste Journal (Optional)

## Standards Alignments

Addressing 5.MD.C.5, 5.NBT.B.5, 5.NBT.B.6

### Teacher-facing Learning Goals

- Estimate and calculate products and quotients of whole numbers.

### Student-facing Learning Goals

- Let's use multiplication and division to think about food waste.

## Lesson Purpose

The purpose of this lesson is to estimate and calculate products and quotients of whole numbers in order to understand the amount of food waste that is produced in the United States each year.

This lesson is optional because it does not address any new mathematical content standards. This lesson does provide students with an opportunity to apply precursor skills of mathematical modeling. In previous lessons, students made estimates about the volume of recyclable garbage students at their school produce. In this lesson, students make similar estimates and calculations, but now they estimate the weight of food waste produced. In the first activity students estimate the amount of food waste they produce based on average production by individuals in the United States. In the second activity, students are introduced to a food waste journal and make some initial calculations about their food waste.

The last activity is optional and can be used after students use the journal to record their food waste for a week. Students share what they notice and compare the amount of food waste they produce to the national average. Students use this sample data to estimate how much food waste they produce monthly and annually.

When students recognize the mathematical features of familiar real world situations and use those features to solve problems, they model with mathematics (MP4).

### Access for:

#### Students with Disabilities

- Engagement (Activity 2)

#### English Learners

- MLR7 (Activity 1)

## Instructional Routines

Notice and Wonder (Warm-up)

### Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Activity 3	20 min
Lesson Synthesis	10 min

### Teacher Reflection Question

What question do you wish you had asked today? When and why should you have asked it?