



What a waste! How much does food waste cost?

Lesson overview



This lesson has been developed to build student understanding of how food waste can cost a family money. They will discuss and identify different foods that are wasted by families. Using a sample collection of food waste students will work out the cost per item wasted, the total cost for a week, and an estimate for the amount of money wasted per year.

Learning intention



Students will:

- Identify what foods are being wasted by families each week
- Reflect on their own households as shoppers, and creators of food waste
- Use supermarket catalogues and websites to price the amount of food waste per week and per year.

Resources



- Butcher's paper
- Interactive whiteboard with internet connection
- Student worksheet
- Supermarket catalogues
- Optional - laptops, computers and / or tablets with access to supermarket online shopping

Differentiation



Support: each scaffold tasks and questions to suit student ability, students work with others and adults to complete task

Structured: Use small group instruction to help support students discuss food waste and costs

Extension: Students work independently (with and without digital technologies) to; calculate, total, divide and multiply amounts

Assessment



- Monitoring understanding throughout class discussion and questioning
- Collecting work samples
- Teacher feedback

Australian curriculum links



Maths

Number and Algebra - Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA080)

Fractions and decimals - Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (ACMNA079)

Humanities and Social Sciences

Geography - The use and management of natural resources and waste, and the different views on how to do this sustainably (ACHASSK090)

Lesson introduction – 5 minutes



Optional task – before lesson

- Ask students to inspect their household rubbish each day for a week and write down the food items and quantities being thrown out.
 - Optional – students can ask their parents to keep a small container of food waste items over the week to observe the common waste items in their household daily.
 - Ask the students to bring in their list on the day of this lesson.
 - Alternatively, after recess or lunch inspect the classroom bin for food waste (possibly using tongs or gloves) to make a list of the food waste that has been thrown out. This could be done over a week.
 - You may like to extend this activity for a further week and keep a class tally to record the food that is wasted in the classroom, or create a competition between classes to see which wastes the least and which class improves the most.
1. Introduce/revise with students the concept of food waste. Watch the introductory video **For the Love of Food savour every slice**.
 2. Ask students to reflect and discuss when they have seen food being thrown out. Prompt them by providing examples such as eating at restaurants or cafes, school, weekend sport, and on television. Discuss and brainstorm how much money their family could be wasting each week on food waste, and how much money they are wasting each year. Students write their ideas and predictions on the student worksheet. Encourage the students to take home two new ideas to share with their family on preventing food waste.

Main body of teaching – 25 minutes



3. Using the students' food waste lists that they have brought from home, or a list of 8 items created together in class, explain that the students are going to price each of the items using shopping catalogues and/or online shopping websites. A sample list of 8 items of food waste include:
 - 1 bread roll from a pack of six
 - 2 brown bananas
 - half an iceberg lettuce
 - half 500g pack of ham
 - half a box of 500g muesli
 - two popper juices
 - 5 slices of tasty cheese
 - half a small jar of strawberry jam
4. Model how to calculate a portion of the total cost of an item of food. For example, the cost of 4 pieces of bread if the cost of a loaf is \$2.00.

Example of calculations required, to be done as a class with the teacher or by students independently using calculators (depending on the ability of the students):

A box of muesli is \$3.50, if half of the box is thrown out then it is \$3.50 divided by 2 = \$1.75

Six bread rolls are \$2.00 so one bread roll thrown out it is \$2.00 divided by 6 = 33c

A jar of strawberry jam costs \$4.00 so if half the jar is thrown out it is \$4.00 divided by 2 = \$2.00
5. Students work in small groups, pairs or independently using online shopping websites on computers, laptops and tablets or supermarket catalogues to calculate the price of each item that is identified as food waste. They need to work out a portion of the cost of a whole item. Student ability will determine how much assistance will need to be provided for them to make these calculations.
6. Brainstorm ideas that could lead to their own families saving food waste and therefore saving money. Record ideas on the student worksheet. Discuss which food groups and food types are the most commonly thrown out as food waste. Introduce the concept of a classroom or household audit and tally, where students record each type of food that is wasted. A tally could be kept for the classroom over the period of a week, fortnight, or month, with a goal to reduce the tally each week.

Plenary – 15 minutes



7. Watch the video 'Don't Let Great Taste Go to Waste', found at [facebook.com/NutritionAustralia](https://www.facebook.com/NutritionAustralia)
8. Identify the 3 key ways of preventing food waste and brainstorm some of the other benefits this would have on families household incomes e.g. less money spent on garbage bags, more money saved on food means more to spend on other things etc.

Home activity / extension task ideas



FOR HOME

Students take home the worksheet and complete an audit of food waste, adding tally marks for certain types of food. The purpose of this is not to just identify what families can do to avoid food waste, but for students to identify what preventative food waste actions, set and share a goal with their family, and seek their support in reaching it. Furthermore, students can ask their family to identify a separate goal and they can work together to achieve it.

Students can use goals chart, recording each time that someone in their household acts in a positive way to save food from being wasted.

EXTENSION

Measure and tally the food waste placed in the classroom bins over the course of a week. Repeat the costing activity to see how much food waste in the classroom costs.

EXTENSION

Visit the Love Food Hate Waste website at www.lovefoodhatewaste.nsw.gov.au and discuss the strategies that families can use to reduce food waste. Create these into posters or a brochure for display and distribution around school and to families.