

How much food do we waste?

In a nutshell

This lesson introduces learners to food waste - a current, real world, environmental issue. It encourages learners to consider the contribution they personally make to this issue. Learners are tasked with measuring how much food is wasted during one lunchtime by their class and understanding the reasons behind that waste.

Core Learning

We are learning how much food we waste during our lunchtime at school. We understand that we can save food from the rubbish bin and that it is important to reduce what we waste. One way we can do this is to eat all of our lunch before we go outside to play.

Preparation

This lesson should be planned for after lunch and takes approximately 40 minutes. On the day of the lesson ask learners to keep all their uneaten food from morning tea and lunchtime in their lunchbox and not to throw it in the school rubbish bins or compost bin.

Equipment needed:

- A large sturdy plastic sheet or tarpaulin
- Empty plastic bags
- Gloves for each student who will be sorting the waste and a box to keep these in
- A portable set of scales
- Signs explaining the different types of waste. Signs can be downloaded here.

bit.ly/LFHW-signs

bit.ly/LFHW-ppt

Starter

Discuss with your learners why they think food is wasted.

Do you think we waste food?

What kind of food do you think people waste?

Why do you think people waste food?

What happens to the food we throw away?

Note: the PowerPoint for this lesson has a picture showing a landfill if learners are unfamiliar with the concept.

Why is wasting food a problem?

How can we find out how much food we waste at school?

Explain that one way to measure how much food we waste is to do a food waste audit where we sort and weigh how much food is thrown away.

How much food do we waste?



Main

Ask learners to sit around the tarpaulin, then empty their lunchboxes onto the tarpaulin.

Note: if learners attend an afterschool program they should keep their afternoon snack in the lunchbox, but all other uneaten food should be tipped out.

Ask learners "What are you thinking" when they see all the food and rubbish in front of them.

Choose learners to act as sorters and ask them to put on plastic gloves.

Allocate one student to be the official photographer who will take photos of the sorted rubbish.

Place signs on the tarpaulin for food, and the different rubbish and recycling categories. Example signs can be downloaded and printed [here](#).

bit.ly/LFHW-signs

Ask the sorters to organise the lunchbox rubbish into food, recyclable packaging and rubbish. Those without plastic gloves can assist from the sidelines.

When the food and rubbish has been sorted ask learners:

What are you thinking?

What food can you recognise e.g. uneaten sandwiches, half eaten apples, orange peels etc

Then **ask the learners** with gloves on to pull out in a separate pile any food that they think could have been eaten e.g. crusts, uneaten sandwiches, half eaten yoghurts and leave behind anything that can't be eaten e.g. banana skins, mandarin peels. Depending on the volume of food waste you may be able to divide the edible food into several piles e.g. a pile of uneaten sandwiches, a pile of half eaten fruit etc.

Explain that the food that could have been eaten is avoidable food waste, whereas banana skins are unavoidable - you normally can't eat them.

Note: depending on the age of the learner you may also want to explain that some food is potentially avoidable e.g. apple cores some people eat them and some people don't.

Ask the learners why they think the food might have been thrown away e.g. not hungry, didn't like it, too big to finish etc.

Ask the learners to weigh all the piles of rubbish e.g. the soft plastics, containers, rubbish, avoidable food waste and then the unavoidable food waste.

Note: to weigh these piles easily put each pile into a plastic bag and then place the plastic bag on the scale.

How much food do we waste?

Write up on the whiteboard for each pile of food, recycling or rubbish how much it weighed.

Ask the learners

What was the heaviest pile?

What was the lightest pile?

How much food did we waste?

- If we wasted the same amount of food every day for a week how much would that weigh? *Multiple times 5*
- If we wasted the same amount of food every day for a term how much would that weigh? *Multiple times 10*
- If we wasted the same amount of food every day for a school year how much would that weigh? *Multiple times 4*
- If every class wasted the same amount how much would our whole school waste in a year? *Multiple times the number of classrooms in the school*

Note: the website below will allow you to compare the weight of the food your class throws away to actual objects. E.g. six kilos is the size of a large cat

bit.ly/LFHW-1-measure



Dessert

Ask learners

Do you think we waste a lot of food at school or only a little?

What can we do to waste less food at school?

Tell the learners: Researchers examined the rubbish bags of over 1,000 different families around New Zealand. They pulled out the food sorted and weighed it and also worked out the cost of the food that was thrown away. They found that the average New Zealand family throws away three shopping trolleys of food every year. As a country families are wasting \$872 million worth of food every year.

Show a picture on the PowerPoint of the food found in people's rubbish bins.

What do you think people can do to waste less food?

How much food do we waste?

Extra helping

Ask learners to create an infographic showing how much food is wasted/what kinds of food are wasted in their class. An infographic includes numbers and statistics. Learn more here.

bit.ly/LFHW-1-infographic

OR

Ask learners to create a poster encouraging others to waste less food.

How can we encourage people to waste less?

Do we make them feel guilty?

Do we tell them how much money they will save?

Do we tell them about the impact on the environment?

Do we give them great ideas for using leftovers?

Examples of posters and infographics can be seen in the PowerPoint here.

bit.ly/LFHW-ppt

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CURRICULUM AREA	ACHIEVEMENT OBJECTIVES	LEARNING INTENTION
Health Communities & Environments	Level 1 Rights, responsibilities, and laws; People and the environment Learners will take individual and collective action to contribute to environments that can be enjoyed by all.	<ul style="list-style-type: none">• We are learning why people waste food.• We are learning how wasting food affects people and the environment.
	Level 2 Societal attitudes and values Learners will explore how people's attitudes, values, and actions contribute to healthy physical and social environments.	
Social Sciences	Level 3 Social Studies Learners will gain knowledge, skills, and experience to understand how people make decisions about access to and use of resources.	<ul style="list-style-type: none">• We are learning why people waste less food.
Mathematics & Statistics	Level 1 Measurement Order and compare objects or events by length, area, volume and capacity, weight (mass), turn (angle), temperature, and time by direct comparison and/or counting whole numbers of units.	<ul style="list-style-type: none">• We are learning to calculate how much food we waste.
	Level 2 Measurement Create and use appropriate units and devices to measure length, area, volume and capacity, weight (mass), turn (angle), temperature, and time.	
	Level 3 Measurement Use linear scales and whole numbers of metric units for length, area, volume and capacity, weight (mass), angle, temperature, and time.	