

Pre-excursion resource

# Food Waste Fight

Level 3 – Level 6



Year

Grade 3 – Grade 6



Level

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## Activity description

Students and teachers work together to undertake a food waste audit at school. They calculate the waste produced from their lunchboxes and reflect on their results. Students research food waste alternatives and select an appropriate waste collection method, such as composting, worm farm or organics bins. Students take action and implement practical solutions to reduce the amount of food waste going to landfill.



## Key Topics

- Food waste audit
- Food waste



## Materials required

- 1 or 2 large tarpaulins
- Gloves for each student
- Tongs – 1 per pair of students
- Waste category labels (attached)
- 1 brush and shovel
- 1 rake or outdoor broom
- 6 buckets or tubs
- 2 large rubbish bags
- 1 weighing scale for weighing waste and recycling
- Access to a computer and the internet
- Writing materials
- Worksheet: Waste Audit
- Mobile phone or camera to take photos



## Instructions

1. As a class, brainstorm reasons why food is wasted. Encourage students to think about why they might throw food away.  
Discuss whether it is okay to throw uneaten food into the bin. Why/why not?
2. The waste audit works well if it's conducted after lunch and undertaken as a whole class activity; that way you can collect all the waste/rubbish from recess and lunch.

At the start of the day, let the students know they are doing a classroom waste audit. All the waste/rubbish from the day's recess and lunch will be collected in a large rubbish bin, placed at the entrance of the classroom.

Conduct safety briefing and select a suitable indoor or sheltered outdoor space to conduct the audit.

3. Students then undertake a teacher-led food waste audit. They collate the amount of waste produced from their lunchboxes over a single school day on the worksheet provided.

Note: You may want to carry out the audit over a longer period of time depending on the amount of data you would like to collect and time constraints.

- Collect the data as a whole class on a whiteboard. Allocate a few students to the task of scribe to write up the results as the audit progresses.
- Spread out a tarpaulin and place waste labels directly on the tarp or on buckets.
- Empty waste/bin contents onto the tarpaulin and take a photo.
- Use tongs and gloves to separate waste into piles (paper, cardboard, food, steel cans, recyclable plastic, aluminium cans and soft plastics) and photograph each pile.
- Count the number of items in each pile.
- Weigh each pile. (Weigh the empty tub and then weigh each pile in the tub. Remember to subtract the weight of the empty tub from the weight of the full tub.)
- Record weight on the whiteboard or worksheet.
- Clean up audit site and place all waste into correct bins.
- Reflect on the results.
- Graph the data collected.

4. Once the food waste audit has been completed, undertake a student reflection on the impact that their waste has on the environment. Ask the following questions:

- Were you surprised by the results?
- What was the biggest waste pile and which items were most common in each pile?
- What can we do to have less of the most common items in the waste?
- Can we change anything at school to reduce our waste?

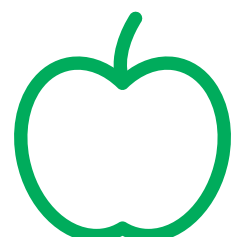
5. Then create a plan of action to reduce their waste. Students brainstorm to identify the different ways in which their waste could be diverted from landfill.

Examples: Composting, worm farm, organics collection, local/commercial waste collections, introducing chooks to the school yard. Record responses on the board.

- 6. Discuss the pros and cons for each method (e.g. composting can be done at school, but someone would need to monitor it to make sure that only certain food scraps are being composted).
- 7. Based on the action list, students select a method they believe could work for their school or classroom. Take action on their recommendations and try to set up a food collection system.
- 8. Students then produce a piece which can explain the chosen waste disposal process to new students/other classes in the school/wider community. Students may choose to create an information poster, visual presentation, skit/performance for other classes, or newsletter article. Alternatively, students can present their ideas at a school assembly. This could be done via an oral and visual presentation as a class project, where groups complete different components of the presentation.

## Suggestions for assessment

Students will be assessed based on their chosen presentation method. This could include an information poster, visual presentation, skit/performance or newsletter article.



 Curriculum links

**The Victorian Curriculum**

**Science**

**Level 3–4**

Science knowledge helps people to understand the effects of their actions (VCSSU056).

Use formal measurements in the collection and recording of observations (VCSIS068).

Use a range of methods including tables and column graphs to represent data and to identify patterns and trends (VCSIS069).

Compare results with predictions, suggesting possible reasons for findings (VCSIS070).

Represent and communicate observations, ideas and findings to show patterns and relationships using formal and informal scientific language (VCSIS072).

**Science**

**Level 5–6**

With guidance, plan appropriate investigation types to answer questions or solve problems and use equipment, technologies and materials safely, identifying potential risks (VCSIS083).

Construct and use a range of representations, including tables and graphs, to record, represent and describe observations, patterns or relationships in data (VCSIS085).

Compare data with predictions and use as evidence in developing explanations (VCSIS086).

Communicate ideas and processes using evidence to develop explanations of events and phenomena and to identify simple cause-and-effect relationships (VCSIS088).

A collection of dot grid patterns for writing, consisting of several rows of horizontal dots, several columns of vertical dots, and a combination of both horizontal and vertical dots.

## Worksheet: Waste Audit

Category	Tally/Number	Weight in Kg/Grams	Comments
1. Paper/Cardboard			
2. Organics: Peel, Fruit & Vege Scraps			
3. Soft Plastics			
4. General Waste			
5. Comingled Recycling: Glass, Steel, Hard Plastic, Aluminium			
6. Other			
<b>TOTAL</b>			

### How to calculate waste

**Weight:** Total weight of each category of waste in grams (e.g. paper/cardboard) ÷ total weight of all categories in grams × 100 = percentage of waste rate.

**Number of items:** Total number of items in each category (e.g. soft plastic) ÷ total number of items in all categories × 100 = percentage of waste rate.

Waste category labels

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# 1. PAPER / CARDBOARD

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# 2. SOFT PLASTICS

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Waste category labels

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# 3. ORGANICS: PEEL, FRUIT & VEGE SCRAPS

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# 4. GENERAL WASTE

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Waste category labels

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**5. COMINGLED  
RECYCLING: GLASS,  
HARD PLASTIC,  
STEEL, ALUMINIUM**

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**6. OTHER**

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