# LESSON PLANS

| Food Education and Sustainability Training | |
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| Year | Year 5 and 6 |
| Weeks | 10 Weeks (10 theoretical lessons and 6 practical lessons - 1.0 hour each to adjust) |
| Timing | |
| Teacher | |

**Unit Overview**

This unit uses a STEM lens and integrates both theoretical and practical learning. Students will investigate what goes into producing and preparing food and all the things we can do to avoid food waste. Students will investigate why food waste is an issue in Australia and other parts of the world by exploring: what food waste is, different ways to cook using food that would otherwise be wasted, how to prepare and select ingredients from different food groups, ways to design and create recipes to educate others about making positive food choices and preventing food waste.

The design brief uses hand illustrated drawings, food photography and/or digital technologies, to explain and document the foods and processes used in creating recipes. Students then create presentations to educate others about the ways to cook with food that might otherwise go to waste.

This unit provides students with an opportunity for an integrated STEM approach to teaching and learning. This is implemented through the application of scientific skills and a process to identify a need, research, and develop a design solution, work collaboratively, and to document, present and evaluate their solution. Students use mathematical terminology and conventions when estimating quantities, measuring foods, budgeting, and cooking. Both design and mathematical processes are used when designing the recipe pages for a 'School Cookbook'.

Key inquiry questions include:

- Why is it important to be aware of food waste?
- What human behaviours can reduce food waste in the home or at school?
- What are some of the ways food is wasted on a local and global level?
- Where does food come from and how can we make informed positive food choices?
- How do we prepare, cook, and eat a variety of foods in a sustainable manner?
- How can we create recipes that can educate others about eating a variety of foods and preventing food waste?
- How can we apply the processes of "Working Scientifically" and "Design and Production" to devise food waste solutions?

# LESSON PLANS

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| Please note: we recommend you review external sources to ensure they are accessible and appropriate for your audience | |

| Assessment | | |
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| Assessment for Learning | Assessment as Learning | Assessment of Learning |
| • Pre-assessment<br>• Student's knowledge about food waste. | • Students produce a variety of work samples, including designated assessment activities. These should be evaluated to determine students' level of achievement and understanding.<br>• Student understanding may be assessed using observational checklists, anecdotal records, and analysis of contributions to class discussions. | • Students engage in peer assessment, based on jointly derived criteria for activity completion.<br>• Student understanding may be assessed using observational checklists, anecdotal records, and analysis of contributions to class discussions. |

| Adjustments | |
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| □ Consideration to teaching CTT<br>□ Consideration to environment CTE<br>□ Consideration to lesson delivery CTLD<br>□ Consideration to instructions CTI<br>□ Consideration to printed material CTPM<br>□ Consideration to time management and organisation CTTM&O | □ Consideration to content CTC<br>□ Consideration to class discussions CTCD<br>□ Consideration to written responses CTWR<br>□ Consideration to reading tasks CTRT<br>□ Consideration to assessment CTA<br>□ Other _____ |

| Understanding Goals | Cross-Curriculum Priorities |
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| ▪ Identify their understanding of the design challenges set and provide an oral definition of the task.<br>▪ Identify why it is important that we are aware of food waste.<br>▪ Identify what human behaviours can reduce food waste in the home and at school.<br>▪ Identify where food comes from, what food waste is, and how to make informed food choices; different ways to prepare, select and cook ingredients from different food groups, and ways to design and create recipes to educate others about eating a variety of foods and preventing food waste.<br>▪ Write a design brief.<br>▪ Explore how to reduce food waste by using 'Working Scientifically' and 'Design and Production' skills.<br>▪ Hypothesise, invent, and create recipes, using STEM thinking and STEM challenge activities.<br>▪ Make predictions about recipes that can be created with food that might otherwise be wasted.<br>▪ Investigate the effects of food waste.<br>▪ Develop design techniques and research skills whilst referring to a design brief.<br>▪ Design and make a range of recipes using food that might otherwise be wasted.<br>▪ Write procedures.<br>▪ Create labelled drawings explaining processes and products used in assigned solutions.<br>▪ Present final designed solutions to an audience.<br>▪ Reflect and evaluate feedback. | ☐ Asia and Australia's engagement with Asia<br>☒ Aboriginal and Torres Strait Islander histories and cultures<br>☒ Sustainability |

| General Capabilities | |
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| ☒ Critical and Creative thinking<br>☒ Ethical understanding<br>☒ Digital Literacy | ☒ Intercultural Understanding<br>☒ Literacy<br>☒ Numeracy<br>☒ Personal and Social Capability |

| Vocabulary |
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| Breakfast, change makers, cheese, cooking, create, cookbook, dinner, dipping, design, eggs, excess food, food waste, fruit, fish, food photography, food groups, flavour, grains, heating, hygiene, imported food, ingredients, labelled drawings, lunch, leftover food, legumes, lean meat, local food, milk, mixtures, mixing, make, nutrition, nuts, OzHarvest, poultry, portions, procedures, rescued food, recipes, sustainability, safety, seeds, serves, seasonal food, variety, vegetables, yoghurt |

## LESSON 2: Change Makers and Where Food Comes From
## Practical: Fruit Skewers with Natural Yoghurt or Peach Parfait or Muesli Bliss Balls

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| Science<br>AC9S5H01<br>AC9S6H01<br>AC9S5H02<br>AC9S6H02<br>AC9S5I01<br>AC9S6I01<br>AC9S5I02<br>AC9S6I02<br>AC9S5I03<br>AC9S6I03<br>Technologies<br>AC9TDE6K01<br>AC9TDE6K03<br>AC9TDE6K04<br>AC9TDE6K05<br>English<br>AC9E5LY04<br>AC9E6LY04<br>AC9E5LY05<br>AC9E6LY05<br>Mathematics<br>AC9M5ST03<br>AC9M6ST03<br>AC9M5N05<br>AC9M6N05<br>HASS<br>AC9HS5K08 | **Teacher background information**<br>In this lesson students research, read, listen to, discuss, gather and organise ideas about change makers, where food comes from and how it is produced.<br><br>**Recommended activities**<br>Whole-class activity - Change makers:<br>• Discover a change maker like Ronni Kahn who is the force behind the food rescue organisation OzHarvest. "Fierce Girls: Ronni Kahn, the foodie Robin Hood" by ABC News (Australia). Watch here: https://youtu.be/mSvJb8TM6Lk?si=tV3PRSgRyHzWemEg (1:17min). Explore the OzHarvest Waterloo Market. "OzHarvest Market" by OzHarvest. Watch here: https://www.youtube.com/watch?v=ShpBB63ZiqY (1:11min).<br>• Discover a change maker named Steven Satterfield who is a chef and author of a cook book with recipes that use food that might otherwise be wasted, like carrot tops and apple cores into sauces, salads, stews, desserts and more. Visit https://www.jamesbeard.org/blog/steven-satterfields-tips-for-fighting-food-waste<br>• Discuss how these change makers are in the solution business and how they all built, designed or constructed things with a purpose in mind. Talk about the STEM skills they use in their work.<br>• Remind students of their roles as change makers in the FEAST Program through food waste awareness.<br><br>Whole-class activity - Where does our food come from?<br>• Watch the following videos as a class while students record notes individually. See Discover Creative Solutions in the Student Resources, page 3.<br>◦ "The Carrot Journey" by OzHarvest to learn about the journey of a carrot from farm to plate. Watch here: https://www.youtube.com/watch?v=LGMmweLdw0Q (3:32min).<br>◦ "Brussels Sprout" by ABC BTN to learn where the 'most hated vegetable' comes from. Watch here: https://www.abc.net.au/education/for-the-juniors-milk-from-the-dairy-to-the-shop/13500334 (3:36min).<br>◦ "Where does bread come from?" by ABC education to find out where bread comes from. Watch here: https://www.abc.net.au/education/for-the-juniors-where-does-bread-come-from/13497916 (6:43min). | **Support**<br><br>Videos should be viewed with captions to offer students a second opportunity to grasp the information presented. Please email feast@ozharvest.org for access to transcripts for those with processing or hearing difficulty.<br><br>Ensure students have access to all video links so they can watch them at home at their own pace, in a quiet environment. This allows them to fully absorb the material and revisit any sections as needed. |

- "Where does honey come from?" by ABC Education to find out where honey comes from. Watch here: https://www.abc.net.au/education/for-the-juniors-where-does-honey-come-from/13500332 (5:11min).
- "Milk from the dairy to the shop" by ABC Education to discover how milk gets from the farm to you. Watch here: https://www.abc.net.au/education/for-the-juniors-milk-from-the-dairy-to-the-shop/13500334 (5:25min).

**Other suggested activities**

Whole-class activity:

- Identify and define terms or key words that students are uncertain about, then ask students to explain the meanings of the terms to others. Use an online learning tool such as Canva flowcharts to draw a flow chart that explains how foods are produced.

Individual activity:

- Design creative health and safety posters that would be suitable for the classroom to help remind students about safety and hygiene when preparing or eating food. See Food Safety and Hygiene in the Optional Learning Experiences, pages 2-4.

**Support**

Provide definitions ahead of time to students who have difficulty processing information, so they can be better prepared to engage with the lesson content.

Create a word wall displaying key terms with images or icons to reinforce meanings.

Write clear, succinct instructions and definitions on the board or provide them on individual cards.

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| | **Practical Cooking Activity – Fruit Skewers with Natural Yoghurt or Peach Parfait or Muesli Bliss Balls**<br>OzHarvest recommends that all classes make a simple cold recipe as their first cooking activity to introduce students to the importance of basic kitchen hygiene and safety before attempting more complex recipes.<br><br>It is recommended that teachers' set-up each group's workstation with all cooking equipment (except knives) prior to the students arriving, ensuring each workstation has serving dishes on hand.<br><br>Skills: safety and hygiene, cutting and slicing, mixing, shaping, layering<br><br>Whole-class activity:<br>• Discuss cooking procedures and food safety. See Start with safety in the Cold Recipes, page 2.<br>• Read through the recipe with the whole class.<br>• Demonstrate how to prepare the recipe:<br>  ◦ Watch "Fruit Skewers" by OzHarvest to see FEAST Ambassador Colin Fassnidge and his daughters demonstrate the recipe. Watch here: https://ozharvest.wistia.com/medias/e0dvknf35x (2:48min).<br>  ◦ Watch "Knife Safety" and "Knife Skills" by OzHarvest to demonstrate safe knife skills. Watch here: https://www.youtube.com/watch?v=rNAf4npfgUw (1:17min) and https://youtu.be/4MpHqYN_FLE?si=vj652QiTk3EvgRA3 (2:46min).<br>  ◦ Demonstrate building layers for the Peach Parfait or forming mixture into balls for the Muesli Bliss Balls.<br>• Form groups and allocate roles using the Student Role Template in the Practical Tab of the Teacher Portal. Recommended group size: 5-6 students.<br>• Students wash hands.<br>• Hand out knives when students have collected their ingredients and assembled at their workstations.<br>• Students prepare dish.<br>• Students wash dishes and clean up: explain the planned washing up process, including wiping down workstations and pack away/reset for next class.<br>• Students eat.<br><br>Whole-class activity - Wrap up:<br>Think about the recipe that you just created.<br>• How does it reduce food waste and how does it encourage us to eat a variety of foods?<br>• What safety and hygiene procedures and skills did the students learn that could be repeated each practical? | **Support**<br><br>Consider:<br>• Flexible pacing<br>• Modified recipes<br>• Peer support<br>• Clear demonstration<br>• Pre-session interviews<br><br>Awareness Areas:<br>• Food texture sensitivities<br>• Dietary considerations<br>• Physical accessibility needs<br><br>Contact your FEAST Coordinator for a copy of our Inclusion Guide for notes on practical sessions. |