



Table of contents

	Introduction	p 4
	About the series	p 5
	Curriculum matrix	p 6
Media Arts Music	Rhythm Loop Kitchens can be noisy places, but they can also have satisfying rhythms. We explore music-making by sampling sounds in the kitchen and garden, to create performance art of a kinetic kind!	p 8
Health and Physical Education Science Geography Languages	The Science of Taste Sweet, sour, salty and bitter – we explore these tastes as well as the elusive fifth taste, umami. Flavours are created as our bodies respond to certain chemicals in foods, but they change depending on our age and physiology, the temperature of foods, and our cultural expectations. This science unit leads to explorations of cuisine, language and culture.	p 15
Science Design and Technologies History Geography Mathematics	Farms and Market Gardens – Past and Present This unit was created in collaboration with the National Museum of Australia. We explore how the size of farms has changed in Australia, and how this relates to changes in technology, sources of energy and sustainability. We compare farms in the past to farms of today, and look to the future in terms of urban agriculture and food security.	p 28
Health and Physical Education English Economics and Business	Food in the Media Our students are bombarded by food advertising and it is important that they learn to be media-savvy. In this unit we unpack the use of persuasive words and images in food advertising, debunk junk food ‘beauty’ techniques, photograph our own healthy kitchen dishes, search out unquantifiable claims and produce video and still advertisements of our own.	p 51
English	Careers in the Food Industry Many students who have experienced and enjoyed the Kitchen Garden Program want to be chefs. This unit provides an insight into the broad range of career opportunities in the food industry, from farming to software development, event planning, haute cuisine, restaurant management and much more.	p 65



Curriculum matrix

LEGEND

- Short activity or activities for 1 session
- Sequential learning over 2–3 sessions
- Fully developed unit of 4 or more lessons

Tools for Teachers 5

Yrs 5&6



p8	p15	p28	p51	p65
Rhythm Loop	The Science of Taste	Farms and Market Gardens	Food in the Media	Careers in the Food Industry

SUBJECTS/LEARNING AREAS	THE ARTS				
	<i>Music</i>	Yrs 3–6			
	<i>Media Arts</i>	Yrs 5&6			
	ENGLISH				
	<i>Literacy</i>				
	Texts in context			Yr 6	
	Interpreting, analysing, evaluating			Yr 6	Yrs 5&6
	Creating texts			Yrs 5&6	
	GEOGRAPHY				
	<i>Geographical Knowledge and Understanding</i>				
	Factors that shape the human and environmental characteristics of places			Yr 5	
	A diverse and connected world		Yr 6		
	<i>Geographical Inquiry and Skills</i>				
	Observing, questioning and planning			Yr 5	
	Collecting, recording, evaluating and representing			Yr 5	
	HEALTH AND PHYSICAL EDUCATION				
	<i>Personal, social and community health</i>				
	Being healthy, safe and active		Yrs 5&6		
	Communicating and interacting for health and wellbeing			Yrs 5&6	
	HISTORY				
	<i>Historical Knowledge and Understanding</i>				
The Australian colonies			Yr 5		



Australian Curriculum Content Descriptions are provided at the start of each unit and lesson.

	Rhythm Loop p8	The Science of Taste p15	Farms and Market Gardens p28	Food in the Media p51	Careers in the Food Industry p65
SUBJECTS/LEARNING AREAS	MATHEMATICS				
	<i>Measurement and Geometry</i>				
	Location and transformation			Yr 4	
	SCIENCE				
	<i>Science Understanding</i>				
	Biological sciences		Yrs 5&6		
	Chemical sciences		Yr 6		
	<i>Science as a Human Endeavour</i>				
	Nature and development of science		Yrs 5&6		
	Use and influence of science		Yrs 5&6	Yrs 5&6	
TECHNOLOGIES					
<i>Design and Technologies: Knowledge and understanding</i>			Yrs 5&6		
LANGUAGES					
		Yrs 5&6			
ECONOMICS AND BUSINESS					
<i>Economics and Business Knowledge and Understanding</i>				Yr 5	
CROSS-CURRICULUM PRIORITIES	Asia and Australia's engagement with Asia				
		Yrs 5&6	Yrs 4–6		
Sustainability					
			Yrs 4–6		





Siss, Bang, Boom



Year levels 3–6

Curriculum Links

The Arts – Music

- Develop aural skills by exploring, imitating and recognising elements of music including dynamics, pitch and rhythm patterns (Yrs 3–4, ACAMUMo84) 
- Explore dynamics and expression, using aural skills to identify and perform rhythm and pitch patterns (Yrs 5–6, ACAMUMo88) 

The Arts – Media Arts

- Develop skills with media technologies to shape space, time, movement and lighting within images, sounds and text (Yrs 5–6, ACAMAMo63) 
- Plan, produce and present media artworks for specific audiences and purposes using responsible media practice (Yrs 5–6, ACAMAMo64) 

Resources

- A projector and a computer with internet access, or an interactive white board
- Copies of the ‘Rhythm Loop Analysis’ graphic organiser, one per group, available in the Shared Table Resource Library
- Writing journals and pencils OR computers or devices (one per group) with access to the internet for the storyboarding activity

Location

The classroom

Duration:
45 minutes

Teacher’s note

To get the most out of this lesson, spend some time in kitchen classes listening to the kitchen in action so that students have recent experience to draw on when identifying and describing kitchen sounds.

Getting started

- Ask the class to close their eyes and think about their most recent kitchen class. Who can name a sound they heard during kitchen class?
- If you need to, tell them that human voices don’t count. Prompt them by specifying particular locations, actions and materials in the kitchen: was the dish-washing station silent? Did you hear any sounds made by water? What about the sound of chopping and slicing or the noises electrical equipment makes, such as the timer going off or the dishwasher finishing its cycle? Did people set the tables in perfect silence?
- List the sounds on the board and once you have a selection of sounds, review them and make a list of adjectives that we could use to describe each one (the box on the next page can be used to prompt students).

Gathering inspiration

- Watch one or more of the short videos listed in the box below.
- Ask: Did any of the sounds that you identified (above) feature in this video? Which ones? How were they used?
- Looking at our list of adjectives, could we use any of these words to describe the sound effects in the video? Circle them, and perhaps add some more.
- What about in the garden – could we do something similar using the sounds we hear when we are working outside? How?

Video inspirations

Stomp Kitchen

Perhaps the best place to start; this very short video simply layers sounds to make a short piece of music. There is rhythm in the sounds as well as in the way the images are cut: http://youtu.be/4YIjh_6sCpE.

The Muppets: The Swedish Chef – Popcorn

This short and hilarious skit has the Swedish Chef creating kitchen music – and chaos – with his microwave, mobile phone, pots and pans ... and some cheeky shrimp: <http://youtu.be/AvDvTnTGjgQ>.

Kitchen Sound Factory

This video is fairly long, at 7 minutes, but viewing even the first 2–3 minutes will give you plenty to discuss. What seems simple has been very carefully scripted (and the knife skills are good, too): <http://youtu.be/0StzTaDcPS4>.

Adjectives to describe sound

- cheery
- deafening
- faint
- harsh
- jarring
- jaunty
- loud
- mechanical
- melodious
- noisy
- overwhelming
- quiet
- rasping
- rhythmic
- soft
- soothing
- stimulating
- vibrant

Analysis of rhythm loop examples

- Show students the ‘Rhythm Loop Analysis’ graphic organiser, which can be downloaded from the Shared Table Resource Library and printed out or completed electronically.
- Run through one of the videos again, pausing as needed to discuss the following elements of sound, referring to the graphic organiser as needed:
 - **Rhythm** – Is the rhythm created by repetition of sounds in patterns? Or by repetitive movements and images?
 - **Tempo** – Does the rhythm build to a fast peak or ‘crescendo’? Describe the beat, changes to the tempo and rests that break the rhythm briefly.
 - **Mood** – How does the performance express a mood or atmosphere?
 - **Sound technology** – How have the sound effects been ‘layered’ and repeated to create the different elements of the rhythm?
- Looking at the same video or a different one, examine the elements of film:
 - **Shot length** – Can we identify long shots and close-ups or is it all shot from one spot? What impact do these shots have? Long shots set the scene (the chef walking through the kitchen) while close-ups explain the sound effect (we see the pepper mill turned at the same time as we hear its grating sound).
 - **Cutting and editing** – Does the video ‘jump’ from one point to another? When cuts are well done you hardly notice them. How do film makers use cuts to create a rhythm? How do they use cuts to link two items in a story? (When we cut straight from one image to another, for example, we link the two things in the narrative.)
 - **Repetition** – Are any images repeated? How does this visually support the rhythm in the soundtrack?
 - **Narrative** – Does the video tell a story?
- Split the class into groups of about four students. Ask each group to analyse a video of their choice and complete the ‘Rhythm Loop Analysis’ graphic organiser.



Storyboards

- Introduce storyboards, if your students have not encountered them before. A storyboard is a form of graphic organiser that is used to plan and visualise a film, performance or animation.
- Storyboards look like cartoon strips, with one moment of action per image. They can be drawn by hand or using software such as Bitstrips or Comic Life.
- Students practise by creating a storyboard for the first minute of any of the videos in the box on the previous page. You can have them do this on paper or using digital technology.

Extension/Variation

- This lesson could easily be adapted to focus on garden rather than kitchen sounds, or a mixture of both.

Take It to the Garden!

This unit about farms in the past and present is ideal for real-world learning in the garden. Here are just three ways you might do it:

Tiny Farms

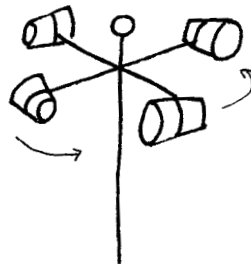
Students create a miniature version of their scale farm plans from Lesson 3 in the garden. What types of grasses could we grow to represent hay and grain crops? At Year 5 level, students should be working out their plot to a true scale, measuring accurately, choosing appropriate miniature varieties to plant (perhaps using height data in seed catalogues) and explaining why and how they allocated their 'farm land' to different crops.

At Ungarra Primary School on the Eyre Peninsula, South Australia, a Year 5 class crafted farm buildings, silos and dams to scale, using recycled materials. For these students, farm kids mainly, the project gave them a new insight into what family members did. One parent came in to share his expertise about how decisions are made about planting and harvesting on his farm, using the mini farm as a model for his talk. This was hugely positive for students and the farmer!



Wind Power

Build a miniature windmill in the garden. Students determine the best site for the windmill by creating wind maps of the school garden, collecting data, perhaps with their own anemometer built using patterns from the internet.

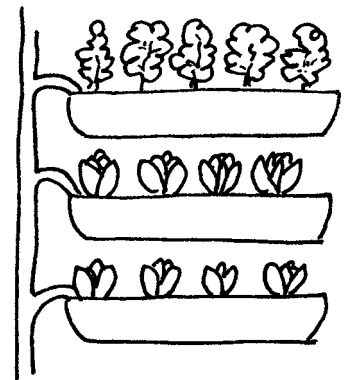


What's the best design choice for our site? What types of windmills are used in our local area and how does a windmill's design relate to its location and use? In built-up areas we might see small three-bladed turbines on a tall pole; in rural areas we might see broad towers and sunburst windvanes powering water pumps and wind farms with huge three-bladed or spiral turbines generating electricity on a large scale.

Students assess the garden and compare the energy outputs of different designs. Could we power something with our chosen design, and if so, what?

Vertical Farms

Can we grow crops in a vertical space in the garden? Consider location, supports, sunlight, shade, water and plant species. The likelihood of inner-city vertical farms is increasing as the proportion of world population in urban areas approaches 85%.



Some designs are closed warehouses with LED lights and hydroponic trays for growing plants. Others are vertical glass towers. Some are simply farms on rooftops.

Explore these ideas and facilitate students making their own plan, design, materials lists and costings for their own proposed 'Next Generation' urban farm.

Resources for these ideas and the other lessons in this unit are on the following page.



Eat with Your Eyes – Persuasive Words and Images

Year levels 5–6

Curriculum Links

Health and Physical Education

- Recognise how media and important people in the community influence personal attitudes, beliefs, decisions and behaviours (Yrs 5–6, ACPPS057) **AC**

English

- Compare texts including media texts that represent ideas and events in different ways, explaining the effects of the different approaches (Yr 6, ACELY1708) **AC**

Economics and Business

- Influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices (Yr 5, ACHEK003) **AC**

Resources

- A selection of food adverts
- A selection of food packages
- Five photographs of beautiful (healthy) meals on the Foundation's Pinterest board: www.pinterest.com/SAKGF/food-photography/
- A selection of photographs of food, preferably dishes from kitchen classes

Location

The classroom

Duration:
 45 minutes

Before the class

- Collect a variety of examples of food advertising and packaging as listed under Resources.

Investigating advertising

- Have the selections of advertisements and packages displayed around the room as you discuss: What is advertising? Why do companies advertise?
- Brainstorm all the kinds of food advertising students have seen (print, TV, digital), drawing attention to those they may not at first recognise as advertising, such as:
 - advertising in restaurants and shops
 - advertising on T-shirts, hats and other clothing
 - posters and logos on buses, trains and trucks
 - food brands on sports equipment and uniforms of sports teams
 - product endorsements in TV commentary (sponsored sports commentary or awards)
 - product placement in TV and movies
 - advertising on sports arena boards or the sports field itself
 - sponsored names of public buildings such as sports arenas or music venues
 - sponsored events
 - advertising on 'free' toys and colouring books.
- Discuss: What is advertising meant to do? (Some students may say it's to make you *aware* of something new. Prompt students with additional questions until they see that retail advertising is designed primarily to convince you to *buy* something.)
- Advertising is expensive for the company that produces it. What makes the cost worthwhile to the company?
- Share some of the figures from the 'Big Money' box below.

Big money

Every time anyone goes shopping in Australia, more than half of the money they spend is on food.

According to the Department of Agriculture, Fisheries and Farming, the total value of food retail sales has recently been estimated at around \$88.7 billion (1 billion = 1000 million). This includes money spent in supermarkets and grocery stores (62% of the total value), cafés and restaurants (13%), takeaway food outlets (10%), other food retailers (9%) and retail liquor outlets (6%).

Food is big business! Advertising can affect what people buy, and where.

How does advertising work?

- Advertising is a form of persuasion. What other forms of persuasion do students know? (Text, image or oral presentation forms, for example.)
- Discuss how advertisements persuade you to buy something by using motivations such as: our desire to be happy, loved and popular; good feelings about a team, a band or music; happy times such as festivals; the desire to emulate someone we admire (such as a sports hero or a celebrity).

Eat with your eyes



- Read the following phrases to the class and ask for a show of hands: Who would like to try this meal? Students can vote for as many meals as they like – this is simply a reaction to the stimulus of the words. Be sure to keep a tally of the results; we'll compare them to a tally based on photographs of these dishes later in this section.
 1. A satisfying bowl of roasted pumpkin and coriander soup with red capsicum spice oil and thyme
 2. A juicy, sunny salad of ripe papaya with chargrilled haloumi and lemon
 3. A hearty breakfast sandwich; a perfectly cooked egg on freshly baked crusty bread, topped with spinach, herbs and avocado
 4. Crispy grilled new potatoes with a zesty spring onion vinaigrette
 5. Delicious Mexican-style roasted corn and capsicum beef burger with juicy guacamole
- We've collected five photographs of the dishes described above on the Foundation's Pinterest board at: www.pinterest.com/SAKGF/food-photography/.
- Silently show each of the five images to the class and take a tally of how many students would try each one. Again, students are simply voting for any dish they would like to try, and they can vote for as many dishes as they like.
- Explain to students that the phrases above describe the *same* dishes as they saw in the five images. Ask students to match the words to the pictures. Were the dishes as they imagined?
- Compare the two tallies. Were the pictures more persuasive than the words?

Persuasion and pictures

- Revisit the phrases above with students and identify the persuasive words. Generally these are adjectives, and several of them ('satisfying', 'hearty', 'sunny', 'perfect') are there specifically to convey the positive emotional experience or mood of the person eating the dish.
- What do the other adjectives do? What about the alliteration of 'sunny salad'?
- Look at the images together with students. Discuss how the lighting, props, setting, arrangement of the food on the plate and every element in the image (including shot length) have been carefully chosen to make you imagine yourself enjoying eating this dish.
- Working individually, students choose a food photograph from the selection of photographs you have sourced or taken in kitchen classes. They write an enticing or 'sizzling sentence' to attract someone to try this dish, paying particular attention to adjectives and phrases that convey positive emotions (such as 'hearty', 'satisfying', 'refreshing', 'playful', 'zesty', 'luscious' – or even evocative words like 'summer' or 'sunshine'). Explore magazine articles and headlines as well as advertisements for inspiration.