



Paddock to Plate & Waste

Understanding our food system is the first step to understanding what we can do to improve sustainability of our food system.



Lesson Plans and Power point Foundation – Level 8

Aim: Increasing the understanding of a food system and healthy eating options



Curriculum and resource links Activity ideas & discussion points

Free



Optional free Incursion
offered to schools in
Yarra Ranges

Project Exhibition

Optional. Exhibition is held at
Lilydale and Yarra Valley show



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Please send any questions or comments to health.promotion@inspiro.org.au

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During 2023 Project Partners include:

Yarra Ranges Council, Eastern Health, Resource Smart Schools and Stephanie Alexander Kitchen Garden Foundation

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We thank the teachers and volunteers who took the time to offer their expertise and advice.



Paddock to Plate & Waste

Aim: To increase students' understanding of the components of a food system from paddock to plate to waste
To increase students' knowledge of everyday food choices

Focus Area: Food and Nutrition, Sustainability

Curriculum links: Design and Technology, Health and Physical Education and Geography

Year level – Foundation - Year 8

PowerPoint provided as accompaniment to the lesson plans. **Please email us for the editable power points**

Project Outline:

1. **Part One**
 - View and discuss the 10 min Food Systems video (~35 – 40 min class time)
2. **Part Two** - 40 mins plus time for poster creating
 - Discussions and healthy food options
 - Design a poster based on the 'Poster' section of each year level – PowerPoint guide provided).
 - Teachers and students can choose to create posters, videos or dioramas. These can be completed as a whole class activity, smaller groups or individually.
 - Utilise the linked resources, classroom activities to enrich the discussion and learning.
 - Note: There is no hard and fast rule for the posters, but they should show an understanding of the food system and or healthy eating options.
3. **Part Three**
 - Poster display – in house at school or community exhibition (Lilydale show November)
 - Note: please ensure Students name, class and school are on back of poster if displaying at show
4. Optional but encouraged - Survey evaluation and feedback ~5 – 10 mins
<https://www.surveymonkey.com/r/PaddockPlateWaste>

Showcasing Student work: 4.3 min video <https://www.youtube.com/watch?v=xklqaHX0xQA>

Mini video Promoting the lesson plans and project : <https://youtu.be/azAt-qzB4uc>

Example of what is outlined for each year level:

Example

Curriculum Links

- Includes curriculum links to Design and Technology, Health and Physical Education and Geography

Example (from level 3-4)

[VCDSTC025](#)

Investigate food and fibre production used in modern or traditional societies

- identifying and describing the areas in Australia and Asia where major food or fibre plants and animals are grown or bred

Part Two - Poster

- See this section for outline of poster design

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Example (from level 5-6):

Using at least 4 elements of a food [system](#) show and explain where your selected item might have travelled from and where it is going to. Choose from: production; distribution; processing; marketing; markets; consumption; waste.

- Where might the food have been grown and who might have grown it?
 - Production, farming
 - Growing regions grains [GRDC](#)
 - Newspaper [article](#) Agricultural industries by region

Further details and explanation provided.

Optional classroom discussion, activities and resources:

- See this section for optional classroom discussion ideas, activities and resources

Example (from F-level2):

LESSON 1 - Students select a food item from their lunch box and then using the food guide template, students discuss with a partner where their food would sit on the pie chart. (Teacher could model all of this prior to the students attempt)

- have a large pie chart drawn up on a sheet of butcher's paper and the students could physically put or draw their food in the section that they think best represents their chosen food
- Non-judgmental, use words such as everyday foods, sometimes foods see this resource for ideas for language around food

Resources:

- Australian Guide to healthy eating -Eat for Health
 - Plate model - blank [template](#)
 - Plate model - [Poster](#) with pictures
 - Plate model with pictures to colour in – [link](#)

All Levels

Part One

Watch the 10 min video - What is a Food System?

Power Point [presentation](#) for Part one - Video

Class time: 20 -40 mins

To gain an understanding and introduction to a food system this [video](#) covers:

- the main areas of a food system (0 – 4:45min)
- what is happening now in our food system (4:45 – 7:30 min)
- what is the alternative? (7:30 – 9:26 min)

The video was written and designed by Deakin Dietetic Master Students and trialled with level 5/6

- It is recommended that the video is viewed in three parts above to enable discussion.
- For lower levels there is a simplified diagram of a food system [here](#)

Optional videos-

- WHO World health Organisation –
 - [Food Systems: Our food, our health, our future](#) (1 min)
- Future Learn –
 - [An introduction to the food system](#) (3 min)
- Systems Innovation –
 - [Global Food System in Numbers](#) (3min)
- UN Environment Protection –
 - [What do we need to change in our Food System?](#) (4min)
 - Covers limitations of our current food system and impact on health and environment and what needs to be adjusted
- Systems Innovation –
 - [Food Systems Solutions](#) (7 min)
 - Complex and most suitable for Teachers and older students
- ABC – Where does our food come from
 - <https://www.youtube.com/watch?v=7FDVRQ98O7c> (3 min)
 -
- Where does food come from <https://www.youtube.com/watch?v=x2cWVYIPKSY> (4 min)
- Where does our food come from: Reading exercise- not whole of food system
https://www.youtubekids.com/watch?v=PnSCciL_K3g&hl=en-GB

Foundation – Level 2

Curriculum Links

Design and Technologies

([VCDSTC016](#))

Explore how food is selected and prepared for healthy eating

Health and Physical Education

([VCHPEP062](#)) -Foundation)

Identify actions that promote health, safety and wellbeing.

- grouping foods into categories such as food groups and 'always' and 'sometimes' foods (FN)

([VCHPEP078](#)) (level 1-2)

Explore actions that help make the classroom a healthy, safe and active place

- exploring sustainable practices that students can implement in the classroom to improve the health and wellbeing of the class (FN, RS)
- exploring how fruit and water breaks help support class health and wellbeing (FN)

Part two - Poster - lesson Plan [power point](#)

Choose an 'everyday' food from your lunch box or

The food item can be chosen from one of the below Healthy Eating resources and see discussion Lesson 1.

(e.g., Fruit, vegetable, sandwich, popcorn, cheese, milk, yoghurt)

Draw or design a poster showing:

- Who grew it or made it?
 - (e.g. farmer, home vegetable garden, parent, factory)
- How was it cooked or prepared?
 - (e.g. washing, peeling, cutting)?
- What happens to the left over?
 - (e.g. package, peel). Discussion: is there something we can do within the classroom to minimise waste? What are we doing that works well?

Food and Fibre Production resources and lesson [plans](#)

Optional classroom discussion, activities and resources:

LESSON 1 - Students select a food item from their lunch box and then using the food guide template, students discuss with a partner where their food would sit on the pie chart. (Teacher could model all of this prior to the students attempt)

- have a large pie chart drawn up on a sheet of butcher's paper and the students could physically put or draw their food in the section that they think best represents their chosen food.
- Non-judgmental, use words such as everyday foods, sometimes foods see this [resource](#) for ideas for language around food.

LESSON 2 - Revise over the butcher's paper pie chart that was created during the previous lesson. Have some samples of these foods and highlight which ones are fresh, have packaging, would be stored in a fridge or in the pantry.

- Pose the question - Where would I find these food items in the supermarket?
- Students use a [template](#) of a shopping trolley to illustrate items they would find from the fruit and veggie section, the fridge and or freezer sections.

LESSON 3 - Focus on the preparation that is involved in getting these foods onto your dinner plate.

Continued next page

Foundation – Level 2

Optional classroom discussion, activities and resources

.... continued

- A Food system is everything that happens to our food from growing it, to making it into something or preparing it for eating, getting it to the shops and us eating it and throwing away what's left.
- When looking into the everyday food options discuss how they help our brain learn, concentrate and remember (Life Ed Queensland – Brain food mini video and [flyers](#))
- When looking at leftovers discuss ideas of composting and/or choosing non packaged foods to reduce waste (VCHPEP078)

Resources:

- Australian Guide to healthy eating -Eat for Health
 - Plate model - blank [template](#)
 - Plate model - [Poster](#) with pictures
 - Plate model with pictures to colour in – [link](#)
- Twinkl Food pyramid [Poster](#) 1
- Nutrition Australia Food pyramid [Poster](#) 2

Level 3 - 4

Curriculum links

Design and Technologies

[VCDSTC025](#)

Investigate food and fibre production used in modern or traditional societies.

- exploring tools, equipment and procedures to improve plant and animal production, for example when growing vegetables in the school garden and producing plant and animal environments such as a greenhouse, animal housing, safe bird shelters.

[VCDSCD031](#)

Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment and communities.

[VCDSTC026](#)

Using the Australian Guide to Healthy Eating food model to discuss healthy food choices.

Health & Physical Education

[VCHPEP091](#)

Identify and practise strategies to promote health, safety and wellbeing.

- examining their own eating patterns by researching The Australian Guide to Healthy Eating and identifying healthier food choices (FN)

Poster - Lesson plan [power point](#)

Choose a food item from your lunch box or school garden.

- Reading/English lesson [plan](#) Building blocks to recipes - banana [muffins](#)
- Lesson [plan](#) and resources 'food and fibre production in Australia'

Discuss: Where does the item fit into the Healthy Food guide? [plate model](#)

Is there another food you can put in your lunch box that fits into another section of the healthy food guide?

What would makes a food fall into the 'sometimes food' section?

Draw or design a poster showing and describing where the food grows, and where it travels to and where does it end up.

Cover:

- Where was the food grown? Tell us something about the area or the food? And what types of equipment or environment is needed for it to grow well.
- Show how the food might have got to the shops or market?
 - [Bananas](#) or [Apples](#) or [wheat](#) - Where might it have grown and how far did it travel – calculate food miles.
- Where does the left over end up? (e.g. package, peel – landfill, recycle plastic, [compost](#)).
 - Is there a better alternative for the waste?

Optional classroom discussion, activities, and resources

Classroom discussion and activity options:

- Where does the item belong in the Australian Guide to healthy eating?
 - If it is outside of the [plate](#) model or at the top or outside of the [pyramid](#) model is there another food they could chose that is an everyday food that helps them concentrate and learn
 - Use a poster of AGTHE and have students pin where their food item sits in the [plate](#) model
 - As a class or in groups draw their item on the blank [template](#)
- Mathematics - Compare the amount of waste if package and peel are put in landfill compared to composting, recycling or reusing ([VCDSCD031](#))

Level 5 – 6

Curriculum Links

Design and Technologies

[VCDST035](#)

Sequencing the process of converting 'on-farm' food or fibre products into a product suitable for retail sale, that is, the 'paddock to plate' supply chain

[VCDSTC036](#)

Investigate the role of food preparation in maintaining good health and the importance of food safety and hygiene

Posters – lesson Plan [power point](#)

Choose a grain based food item from your lunch box (or another food item)

Using at least 4 elements of a food [system](#) show and explain where your selected item might have travelled from and where it is going to. Choose from: production (growing and farming); processing; distribution; transport; marketing & purchasing; eating; waste.

- Where might the grain have been grown and who might have grown it?
 - Production, farming - Calculate [food miles](#)
 - Growing regions grains [GRDC](#)
 - Newspaper [article](#) Agricultural industries by region
- What processes did it have to go through to be suitable for eating or transporting?
 - [processing](#) and/or packaging, washing, handling
- How might it have got to the shops/market?
 - transport
- Did it need processing, cooking or preparing for it to be safe or suitable to eat explain why?
 - Processing
- Is there anything left over (package, peel), if so, where does that go?
 - Waste

Lesson plan to support discussion regarding farming & food production

Phenomenon – [Taste the Land](#)

Phenomenon – [The one with the tractor](#) 5 min video

Twinkl – Food and Fibre [Production](#)

Optional classroom discussion, activities and resources

Where does the item belong in the Australian Guide to healthy eating?

- If it is outside of the [plate](#) model or at the top or outside of the [pyramid](#) model is there another food they could choose that is an everyday food that helps them concentrate and learn
- Use a poster of AGTHE and have students pin where their food item sits in the [plate](#) model
- As a class or in groups draw their item on the blank [template](#)

Is the item packaged?

- Label reading lesson [plan](#)
- How to read a food [label](#) – Healthy Kids Association
- Label reading [information](#) Eat for Health

Level 7 -8

Curriculum Links

Design and Technologies

[VCDSTS043](#)

Analysing an environment to decide if it meets personal or community needs,

[VCDSTS044](#)

Investigating traditional and contemporary design and technologies, including from Asia, and predicting how they might change in the future in response to factors such as social change and the need for more sustainable patterns of living

[VCDSTC047](#)

Analyse how characteristics and properties of food determine preparation techniques and presentation when creating solutions for healthy eating

[VCDSTC046](#)

Analyse how food and fibre are produced when creating managed environments and how these can become more sustainable

Poster – Lesson Plan [powerpoint](#)

Using the food system concept describe where a packet of 'Instant noodles' (e.g. Maggi 2 minute noodles or MiGoreng Instant noodles) has travelled from and where it is going to.

- Food Production – Growing & farming
- Distribution and aggregation – from farm to factory or market
- Food processing and packaging
- Transporting – food miles
- Marketing and promotion
- Shops, markets
- Preparation and consumption
- Waste or recycle

Where is our Imported food from [ESRI](#) Australia . Calculate [food miles](#)

Growing regions grains [GRDC](#)

Newspaper [article](#) – Region breakdown of agricultural industries

Highlight and make recommendations for at least one area that could be altered to improve sustainability. Some useful resources can be found [here](#)

Highlight how 'instant noodles' could be modified to improve the nutritional value? See the label reading links below
Is there a way to make noodles from Australian noodles and ingredients? Does it already exist?

Optional classroom discussion, activities and resources

Food Security

- NSW EDU newsroom 'The world is hungry for a solution' - [article](#) Sept 2022
- Agriculture Aust Gove - Covid and [Food Security](#)
- Food [Insecurity](#) in Australia
- Food insecurity is on the rise in Victoria – Foodbank [report](#)

Label Reading

- Label reading lesson [plan](#)
- How to read a food [label](#) – Healthy Kids Association
- Label reading [information](#) Eat for Health
-

General Resources – by no means an exhaustive list

Food Pyramids	<ul style="list-style-type: none"> Food Pyramid from twinkl.com.au Food Pyramid from Nutrition Australia
Food Plates	<ul style="list-style-type: none"> Australian Guide to Healthy eating – Blank plate template Australian Guide to healthy Eating - Eat for Health Poster with pictures Australian Guide to health eating – Eat for Health colour in – link
Quiz	<ul style="list-style-type: none"> Fruit and Veg quiz from www.Livelighter.com.au
Language around food	<ul style="list-style-type: none"> Using positive language around food poster Parent hand out Teacher hand out Fun food words poster
Brain Food	<ul style="list-style-type: none"> Queensland Life Education – <ul style="list-style-type: none"> Brain food information and resources
Food system	<ul style="list-style-type: none"> Basic diagram Food systems Information – University of Melbourne Resilient Food system infographic – University of Melbourne Food system concept Sustain The Australian Food Network Video University of Melbourne School Resources Food Print Melbourne by the University of Melbourne have school resources (mostly secondary) on many areas such as food waste, food systems and sustainable farming. Food imports ESRI Australia Calculate food miles
More lesson plans with resources	<ul style="list-style-type: none"> HORT Innovations - https://phenomenom.com.au/ <ul style="list-style-type: none"> Teachers guidebook, podcasts, short videos and lesson plans EASL as part of the free Resource Smart Schools Sustainability Program Twinkl – free plans and membership options ABC digibooks – Videos, discussion points, lesson plans and resources demonstrating how our environment can make ‘choosing health’ challenging Stephanie Alexander Kitchen Garden Foundation and here is an example lesson plan Happy Food for levels 3-4 Taste and Learn is aimed at early years but some of the plans activities are suitable for Foundation -2 Agriculture and Food – WA government
Activity ideas Books	<ul style="list-style-type: none"> Healthy Eating Advisory Service www.heas.health.vic.gov.au Activity and Game ideas for healthy eating. Includes learning objectives and a Book list. Book ‘Before we eat: from farm to table’ by Pat Brisson (6-8 years)
Composting	<ul style="list-style-type: none"> ABC explanation of composting Landcare activity
Sustainability see over page...	

Sustainability continued

Eastern Alliance for Sustainable Learning EASL <https://easl.com.au/>

- Free program
- Provides member schools in Knox, Manningham, Whitehorse, Maroondah and Yarra Ranges with professional development, learning and networking opportunities for early years, primary and secondary schools throughout the year
- Supports the Resource Smart Schools [Program](#), which helps to embed sustainability into all learning areas of the Victorian curriculum
- Resource Smart schools [Overview](#)
- Monash University - Kids Codesigning Health Places. This [project](#) supports schools to engage with kids to co-design healthier places. It focuses on the things in our neighbourhoods that impact healthy eating, being active and feeling safe.
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Please email us if links are not working health.promotion@inspiro.org.au

Paddock to Plate and Waste

Please take a few minutes to complete the evaluation survey via this [Link](#)

This is what you will find in the survey.

1. Class level _____
2. Number of students in class _____
3. School Name: _____ or Post code of School _____
4. Over all the students' knowledge of a food system increased

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

5. Over all the students' knowledge of everyday food options increased

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

6. The most valuable part of the project for the students was: (can choose more than one)

- ☐ Watching the video and discussion
- ☐ Creating the poster
- ☐ Researching the food system
- ☐ Healthy eating sections
- ☐ Other

7. The lesson plan was easy to follow

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Not applicable

8. The resources were helpful

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

9. The resources I found most useful were
10. The lesson plans and or resources would have been more helpful if
11. I would like more information or professional development on
12. Any comments on the outcomes or the project
13. I would like more information of how the Health Promotion teams can help our class

- a. Please send to email _____

- i. Note: we have a one-two page flyer we can send you outlining the programs we offer. All are free with no pressure to engage further.

Thanks for your time.

Inspiro Health Promotion Team

Health.promotion@inspiro.org.au or 9738 8814