

Nutrition and Food Literacy in Education

Enrichment Module 2

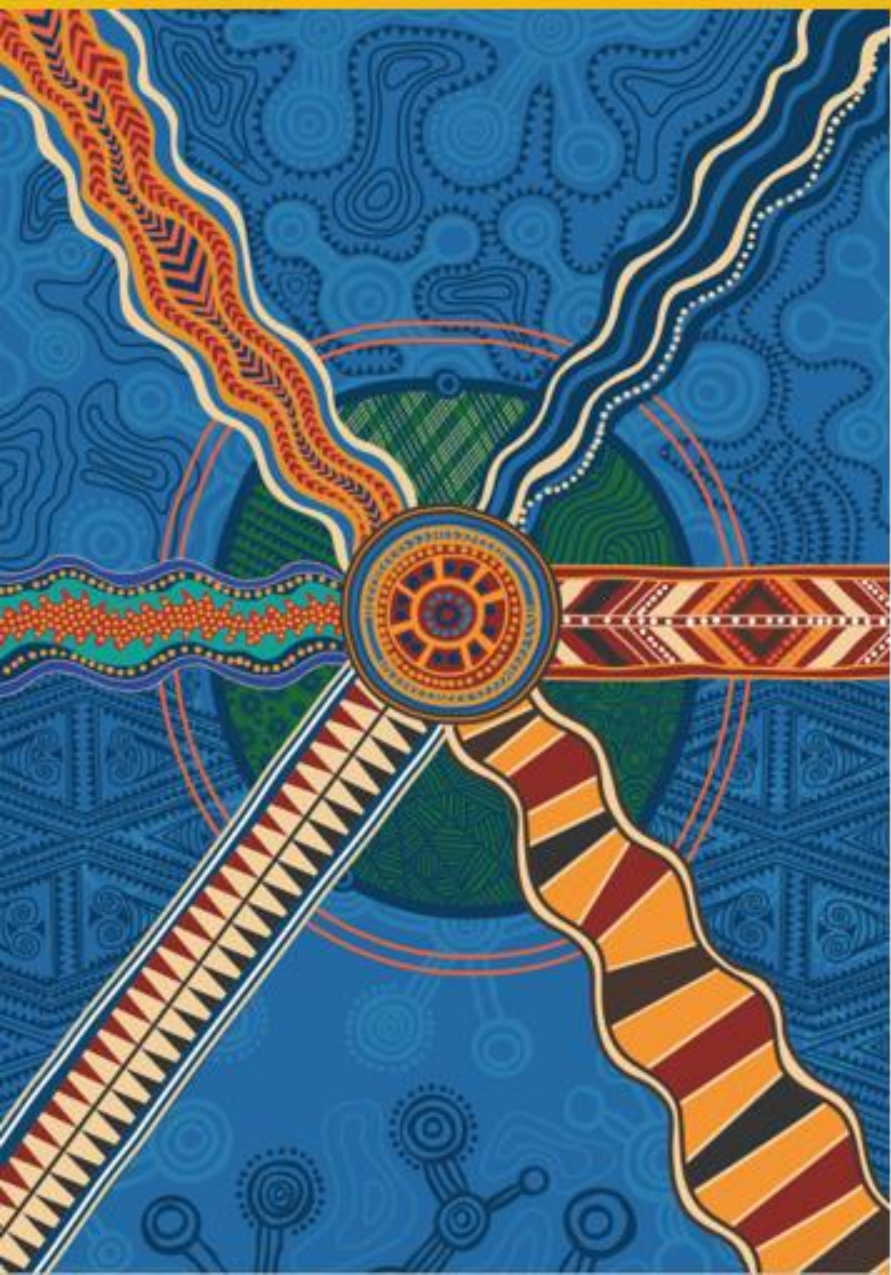
A program developed by

health+wellbeing
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Health and Wellbeing Queensland respectfully acknowledges the Traditional Owners and custodians of the lands from across Queensland. We pay our respects to the Elders past and present for they are holders of the memories, traditions, the culture and aspirations of Aboriginal and Torres Strait Islander peoples across Queensland

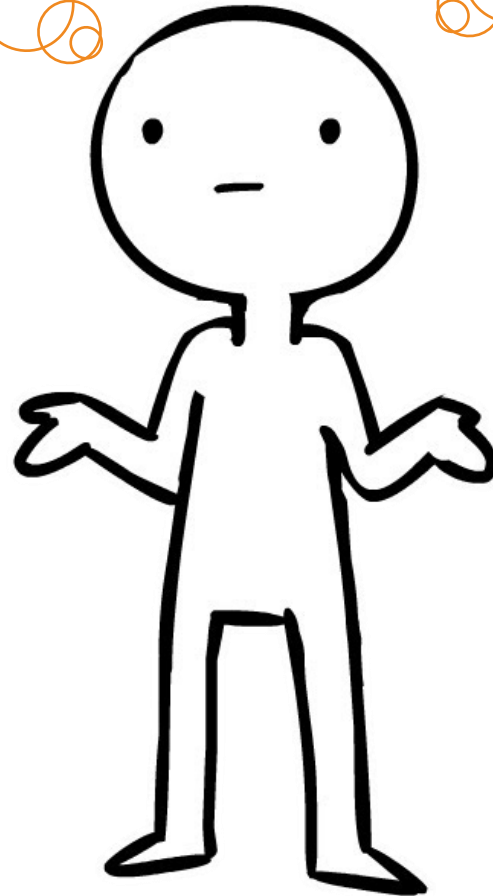


Age-appropriate pedagogy. Just a buzz word?

How can I safely connect students to food and food experiences?

I'm just too busy to work across the curriculum!

I can always just google it...



Learning Objectives:

- 1 Food Literacy in the Australian Curriculum
- 2 Age-appropriate pedagogies for developing food literacy
- 3 Skills in designing learning experiences to develop food literacy



Objective

1

Where is food literacy knowledge, skills and competencies represented within the Australian Curriculum?



Food Literacy within the Australian Curriculum

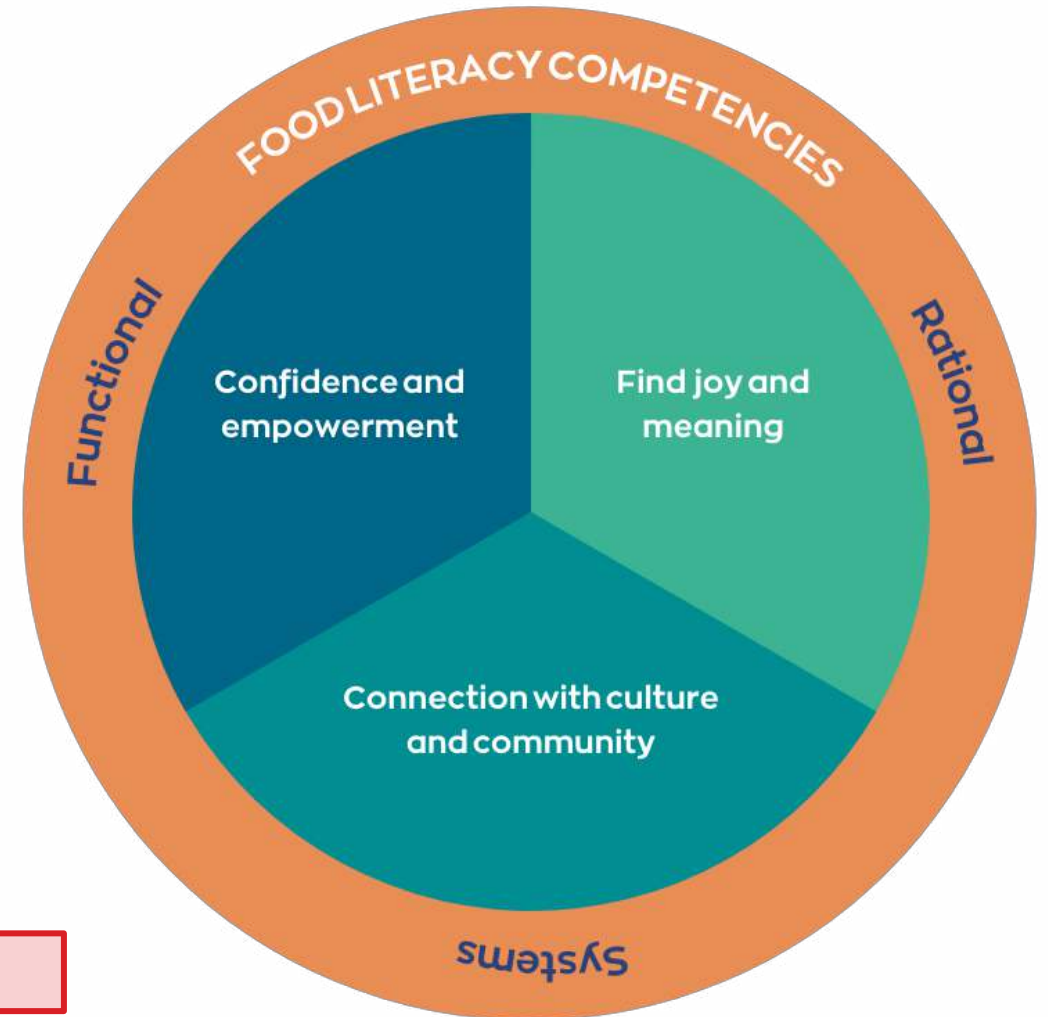
Key Learning Areas

- Health and Physical Education
- Science
- Design and Technologies

Curriculum Connections

- Food and Wellbeing
- Food and Fibre

NOTE: The Australian Curriculum is currently under review



Food and Wellbeing

According to the Food and Wellbeing Rationale:

Students need to understand:

- ✓ The importance of a variety of foods
- ✓ Sound nutrition principles
- ✓ The nature of food
- ✓ Food safety

Students need skills in:

- ✓ Food preparation
- ✓ Making informed food choices
- ✓ Making sustainable food choices

Example Curriculum Connection

Foundation Science: Living things have basic needs, including food and water (ACSSU002)

Year 2 Science: Different materials can be combined, for a particular purpose (ACSSU031)



Food and Fibre

According to the Food and Fibre Rationale:

Students need to understand:

- ✓ Challenges for world food and fibre production
- ✓ The processes of food and fibre production (paddock to plate)
- ✓ The environment in which they live

Students need skills in:

- ✓ Innovative production of food and fibre
- ✓ Innovative management of environments
- ✓ Sustainable use of resources
- ✓ Waste recycling

Example Curriculum Connection

Year 3 and 4 Design and Technologies: Investigate food and fibre production and food technologies used in modern and traditional societies (ACTDEK012)



Delivering Food Literacy Education



Where and **how** are food literacy concepts and practices currently included in your professional practices?



What do you think makes food literacy education effective and engaging for students?



Objective

2

What is best practice in food literacy pedagogy?

How do we apply understanding of cognitive development to select appropriate content?

How do we sequence food literacy learning to promote cognitive development?



Best Practice Food Literacy Pedagogy



Experiential learning opportunities, such as cooking and food preparation activities, were most effective at:

- improving intakes of fruit and vegetables
- reducing discretionary food consumption/energy intake
- increasing nutritional knowledge



Cross-curriculum approaches to food literacy were most effective at:

- improving intakes of fruit and vegetables
- reducing consumption and preference for sugar (particularly in drinks)



Best Practice Food Literacy Pedagogy

Reflecting on professional practice...

| Developing Food Literacy | Experiential Learning | Cross-Curriculum Approaches |
|---|-----------------------|-----------------------------|
| What success have you had using this teaching strategy? | | |
| What challenges have you had using this teaching strategy? | | |



Best Practice Food Literacy Pedagogy



Piaget's stages of cognitive development:

- Cognitive development is intrinsic & innate
- Learning and development stems from independent exploration
- Language provides labels for children's experiences
- Children learn through exploration of their own world



Sociocultural theories of cognitive development:

- Cognitive development is socioculturally driven
- Learning and development stem from observation and interaction
- Language plays an important role in shaping thought
- Children learn through opportunities for peer and social learning



Piaget's Stages of Cognitive Development

| Stage | Age Group | Key Developmental Features |
|----------------------|---|--|
| Sensorimotor | Birth – 18 - 24 months | Imitation and using senses to understand the world |
| Pre-operational | Prep – Grade 1 18 – 24 months – 7 years | Symbolic thinking & magical thinking |
| Concrete operational | Grade 2 - 6 7 – 11 years | Logical thinking, basic problem solving |
| Formal operational | 11 years – adulthood | Abstract & hypothetical thinking |



Piaget's Stages of Cognitive Development

Pre-Operational Stage (Prep – Year 1)

- Use pictures, words, facial expressions, sounds or other symbols to represent foods or sensory properties
- Foundations sensory language formed
- 'Black and white' thinking - foods internalised as 'good' or 'bad'
- Intuitive rationale is used
- Food preferences based on appearance and texture, not taste



Piaget's Stages of Cognitive Development

Concrete Operational Stage (Year 2 – 6)

- Make simple categorisations of food
- Use scientific and inductive inquiry to understand food properties and production
- Strong 'black & white' thinking remains
- Are rules based – *fruit have seeds, so a tomato is a fruit*
- Future impacts of food are not relevant
- Food preference based predominately on taste and taste familiarity



Piaget's Stages of Cognitive Development

Formal Operational Stage (Year 6 - adulthood)

- Begin to apply the Australian Guide to Healthy Eating to inform food choices
- Capacity to understand concepts of nutrients
- Capacity to understand energy conservation
- Ability to interpret food labels for food selection



These concepts can be **embedded** as differentiated learning progressions

Caution must be taken to remain *value-neutral, food positive and inclusive*



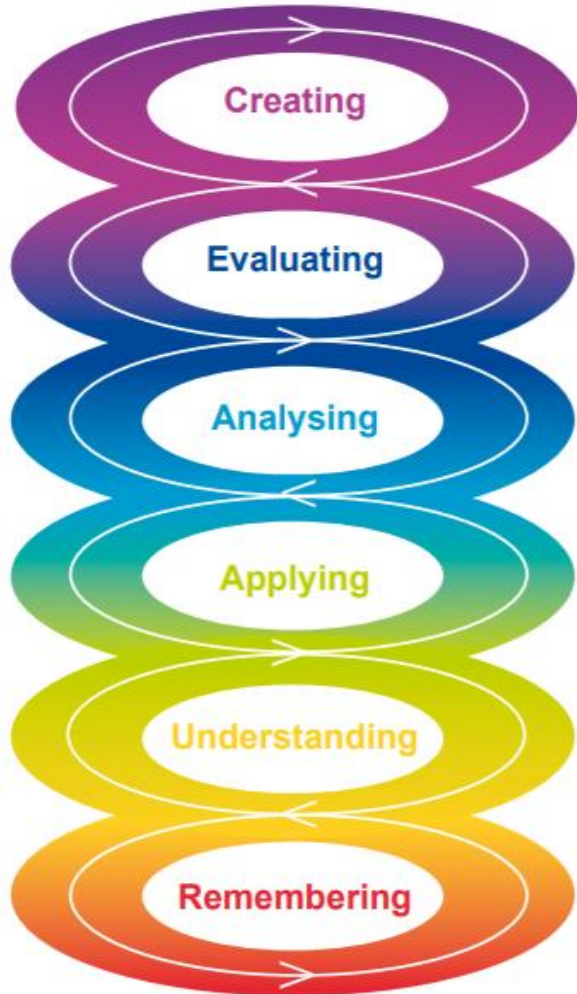
Stages of Development + Content Selection

| Application in Food Literacy Education | Pre-operational Prep – Grade 1 | Concrete operational Grade 2 - 6 |
|--|-----------------------------------|-------------------------------------|
| How might we teach the importance of food variety? | | |
| What nutrition principles might be important for students to understand? | | |
| What knowledge should students develop about the nature of food? | | |
| What will help students to make informed and appropriate food choices? | | |



Food Literacy + Learning Sequence

Skills Path



create a graph/display using the information about likes or dislikes
combine ingredients from a range of choices to create a snack for a teddy bears' picnic

select and **justify** which foods I would like to eat for a snack or a main meal
rate foods I like and dislike, describing preferences

Investigate which foods would be part of different celebrations/festivals
take part in a food tasting session, helping with the preparation of the foods within a given timescale

show how I am able to enjoy food with others using appropriate manners e.g. sitting with peers to enjoy a snack
choose my own snack from a range of options

compare different foods which would be eaten for breakfast, lunch, dinner, special occasion
describe the colours, texture and tastes of different fruits/vegetables

recognise and **name** different foods for occasions e.g. birthday cake, Chinese New Year
match foods that might be eaten together such as cereal with milk



Objective

3

You will need:

A current food and nutrition unit/learning experience to review

OR

A current cross-curriculum unit/learning experience to embed food and nutrition

AND

A copy of the relevant curriculum documents for your unit/learning experience



Designing Learning Experiences

Practical Considerations

- Curriculum Activity Risk Assessment (CARA) activity guidelines
- Food safety
- Student skill, equipment & supervision
- Other policies, practices and considerations



Designing Learning Experiences



Experiential Learning Activity or Sequence:

- How can students engage in experiential learning relevant to food literacy?



Curriculum Connection:

- What core curriculum area is being achieved?
- How will this experiential learning activity achieve this curriculum element?



Cross-Curriculum Opportunity:

- What are the opportunities for cross-curriculum alignment?



Developmental Appropriateness & Practical Considerations:

- Is this learning activity suitable to my students' cognitive abilities?
- How does this activity build student skills to make informed food choices in the future?
- What other practical considerations are relevant?



Useful Resources

First Nations Seasonal Resources

- Indigenous Seasons – Teacher Resource: <https://www.abc.net.au/btn/classroom/indigenous-seasons/10522128>
- Indigenous Weather Knowledge: <http://www.bom.gov.au/iwk/>

Assessment Credible Resources

- Assessing existing curriculum resources/programs flowchart: [Microsoft Word - Resource Flowchart .docx \(det.nsw.edu.au\)](#)

Bloom's Taxonomy

<https://www.celt.iastate.edu/teaching/effective-teaching-practices/revised-blooms-taxonomy/>



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