

# Food & Nutrition 2019 v1.1

## Unit 1 sample assessment instrument

July 2018

### Project — folio

This sample has been compiled by the QCAA to assist and support teachers in planning and developing assessment instruments for individual school settings.

Schools develop internal assessments for each senior subject, based on the learning described in Units 1 and 2 of the subject syllabus. Each unit objective must be assessed at least once.

### Assessment objectives

This assessment instrument is used to determine student achievement in the following objectives:

1. recognise and describe facts and principles related to the nutritional, chemical, functional and sensory properties of protein-based food
2. explain food science ideas and problems related to protein-based food
3. analyse problems, information and data related to the properties and processing of protein-based food
4. determine solution requirements and criteria for protein-based food problems
5. synthesise information and data to develop ideas for protein-based food solutions
6. generate a protein-based food solution to provide data to determine the feasibility of the solution
7. evaluate and refine ideas and a solution to make justified recommendations for enhancement of a protein-based food solution
8. make decisions about and use mode-appropriate features, language and conventions for particular purposes and food and nutrition contexts.

<b>Subject</b>	Food & Nutrition
<b>Technique</b>	Project — folio
<b>Unit</b>	1: Food science of vitamins, minerals and protein
<b>Topic</b>	4: Developing food solutions

<b>Conditions</b>			
<b>Duration</b>	15 hours		
<b>Mode</b>	Written and visual	<b>Length</b>	8–10 A3 pages
<b>Individual/group</b>	Individual	<b>Other</b>	<ul style="list-style-type: none"> <li>• The table of contents and reference list are not included in the page count.</li> <li>• Schools should implement authentication strategies that reflect QCAA guidelines.</li> </ul>
<b>Resources available</b>	Stimulus, experimental equipment, internet		
<b>Context</b>			
<p>The Valley Dairy is a family-owned and operated company. It produces milk that is sold in local stores and at local farmers' markets. Analysis of milk wastage has led to the identification of an opportunity to develop a milk product intended to decrease wastage. Consider the products currently produced by the company, and its target market, to determine a solution to this problem.</p>			
<b>Task</b>			
<p>Use the stimulus provided to develop a solution for a milk (protein-based) product to decrease waste for The Valley Dairy. Document the problem-solving process in a Project — folio.</p>			
<b>To complete this task, you must:</b>			
<p>Use your knowledge of the facts and principles related to the nutritional, chemical, functional and sensory properties of protein-based food to:</p> <ul style="list-style-type: none"> <li>• explain food science ideas and the problem related to the processing of protein-based food</li> <li>• analyse <ul style="list-style-type: none"> <li>– the contextual stimulus, including stakeholder needs</li> <li>– information and data related to the properties and processing of protein-based food to identify essential characteristics and constraints</li> <li>– the relevant personal, social, ethical, economic, environmental, legal and/or sustainability impacts and implications of the solution</li> <li>– the quality, functionality and reliability indicators for the protein-based food problem</li> </ul> </li> <li>• determine <ul style="list-style-type: none"> <li>– solution requirements to develop a brief</li> <li>– prescribed and self-determined criteria used to evaluate the solution</li> </ul> </li> <li>• synthesise <ul style="list-style-type: none"> <li>– food and nutrition information and data</li> <li>– primary experimental data about alternative ideas</li> <li>– alternative ideas to determine a proposed solution</li> </ul> </li> <li>• generate the proposed solution for the protein-based food problem to provide data to determine the feasibility of the solution</li> <li>• evaluate and refine ideas and the solution, using self-determined criteria and generated data to</li> </ul>			

- recommend and justify enhancements to ideas and the solution to the protein-based food problem
- communicate
    - the application of the problem-solving process in response to the protein-based food problem using written or visual features, e.g. annotations, diagrams, sketches, drawings, photographs, and a prototype
    - data using diagrams, tables, graphs and spreadsheets.

### Stimulus

See attached stimulus material.

### Checkpoints

- Term 2 Week 4: Teacher check in on student progress
- Term 2 Week 6: Complete draft submission 6–8 weeks after commencement

### Feedback

### Authentication strategies

- The teacher will provide class time for task completion.
- Students will provide documentation of their progress at indicated checkpoints.
- The teacher will collect and annotate drafts.
- The teacher will conduct interviews or consultations with each student as they develop the response.
- Students must acknowledge all sources.

## Scaffolding

The folio is an individual written response that documents all activities as you work through the stages of the Food & Nutrition problem-solving process. You can include graphs, tables, sketches or data from experiments, and other supporting evidence.



You must include:

- a table of contents
- headings that organise and communicate your thinking through the iterative phases of the Food & Nutrition problem-solving process
- a reference list, using the referencing conventions of a recognised system of referencing.

## Stimulus

Figure 1: Daily milk yield of The Valley Dairy

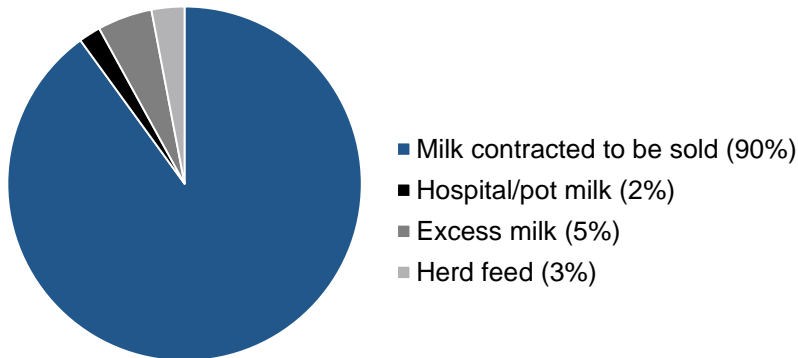



Figure 2: The Valley Dairy brochure




**THE VALLEY DAIRY**

**MILK FROM OUR FARM TO YOUR FAMILY**

The Valley Dairy is a family-owned and operated dairy farm supplying fresh milk from our farm to your families since 1934. Over the generations our natural and organic product provides a creamy, delicious flavour your family can rely on.

Delicious. Just the way nature and The Valley Dairy Intended!



**NO PERMEATES.**

—

**NO ARTIFICIAL COLOURS OR FLAVOURS.**

—

**NOT HOMOGENISED.**

—

**THE VALLEY DAIRY MILK PRODUCTS:**

**FULL CREAM MILK  
SKIMMED MILK  
LACTOSE FREE  
MILK PURE  
CREAM**

**THE VALLEY DAIRY**

Old Valley Road  
The Valley