Achievement Standard

Subject Reference Processing Technologies 1.61
Title Demonstrate understanding of basic concepts used in processing
Level 1 Credits 4 Assessment Internal
Subfield Technology
Domain Processing Technologies
Status Registered Status date 20 January 2011
Planned review date 31 December 2014 Date version published 20 January 2011

This achievement standard requires demonstrating an understanding of basic concepts used in processing.

Achievement Criteria

<table>
<thead>
<tr>
<th>Achievement</th>
<th>Achievement with Merit</th>
<th>Achievement with Excellence</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Demonstrate understanding of basic concepts used in processing.</td>
<td>• Demonstrate in-depth understanding of basic concepts used in processing.</td>
<td>• Demonstrate comprehensive understanding of basic concepts used in processing.</td>
</tr>
</tbody>
</table>

Explanatory Notes


Further information can be found at [http://www.techlink.org.nz](http://www.techlink.org.nz).

2 *Demonstrate understanding of basic concepts used in processing* involves describing:

- processing operations and identifying the resulting outcomes
- the role of tests in processing operations
- safe practices in processing
- how processing operations and tests can be combined in a processing sequence.
Demonstrate in-depth understanding of basic concepts used in processing involves explaining:

- processing operations and how these achieve required outcomes
- the importance of tests in processing operations
- why operations and tests are combined in a processing sequence.

Demonstrate comprehensive understanding of basic concepts used in processing involves:

- comparing and contrasting processing operations and tests and their suitability for different materials and/or purposes
- discussing the relationship/s between processing operations, tests, and outcomes required.

Materials may include but are not limited to – food ingredients, plant extracts, micro-organisms, concrete, fibreglass, woodchips, recycled materials, resins, wool, dyes, cotton.

Processing refers to the combining of materials to make a product. Processing operations for this standard will include:

- one or more of – measuring, shaping, or finishing eg weighing, counting, grinding, slicing, moulding, laminating.
- one or more of – containment, contamination prevention, or disposal eg hygienic handling of materials, sanitising, working aseptically, safe disposal of biologically active materials.
- one or more of – mixing, extracting, separating, or growing eg liquid mixing, blending, mechanical peeling, sieving, washing, juicing, crushing, culturing by plating.
- one or more of – heating, cooling, or reacting eg liquid heating, heating a solid, maintaining temperature for growth, steam setting, acidifying, controlling of enzymes.

A processing sequence is a combination of processing operations and tests in the correct order to undertake a safe process.

Tests may include but are not limited to – testing for pH, temperature, colour, size and shape, ripeness, and whether the product is cooked, set or matured.

Conditions of Assessment related to this achievement standard can be found at http://www.tki.org.nz/e/community/ncea/conditions-assessment.php.

Replacement Information
This achievement standard, AS91082, and AS91084 replaced unit standard 13392 and unit standard 13397.
### Quality Assurance

1. Providers and Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against achievement standards.

2. Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference 0233