

<b>Title</b>	<b>Prepare marshmallow and egg white based bakery products</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	People credited with this unit standard are able to: use safe working practices; prepare and weigh and/or measure ingredients; mix ingredients for meringue; cook marshmallow ingredients; pipe marshmallow and meringue products; dry meringue products; and finish novelty marshmallow and meringue products.
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<b>Classification</b>	Food and Related Products Processing > Baking
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Legislation and references**  
 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:  
 Food Act 2014;  
 Health and Safety at Work Act 2015;  
 Resource Management Act 1991;  
 Food Amendment Regulations 2017;  
 Australia New Zealand Food Standards Code, available at <http://www.foodstandards.govt.nz/>.  
 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 2 Range**  
 Competence is to be demonstrated on two occasions of preparing marshmallow-based bakery products (at least one of which is a novelty product) and two occasions of preparing egg white based bakery products (at least one of which is a novelty product).  
 Products may include but are not limited to – conventional meringue, Italian meringue, small and large novelty products, marshmallow-based fancies and slices, pavlovas.
- 3 Definitions**  
*PPE* refers to personal protective equipment such as protective clothing; gloves; safety glasses, headwear, and footwear; hearing protection; and safety devices.

*Workplace procedures* refer to procedures used by the organisation carrying out the work and applicable to the tasks being carried out, such as recipes, production specifications, standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality assurance procedures, housekeeping standards, and procedures to comply with legislative and local body requirements.

4 Assessment information

Evidence generated during assessment against this standard must meet applicable workplace procedures and must be consistent with industry practice. Such knowledge is available in relevant training manuals and reference texts. No one textbook or other source of information is envisaged, as new approaches to commercial baking and baking products are published regularly.

Ingredients may include but are not limited to – egg white (fresh, frozen, dried), sugar, gelatine, flavours, colours, chocolate, jams, jellies.

Equipment may include but is not limited to – mixers, piping bags, ovens, water bath, piping bags, dipping forks.

5 Recommended skills and knowledge

Unit 29069, *Demonstrate knowledge of and comply with health and safety, and food safety practices in a commercial baking environment*; and Unit 29070, *Demonstrate knowledge of legislation, codes, and rules for the production of bakery products*; or demonstrate equivalent knowledge and skills.

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## Outcomes and performance criteria

### Outcome 1

Use safe working practices.

#### Performance criteria

1.1 PPE is used.

1.2 Work environment is kept clean and free from hazards.

Range hazards to – personnel, product, plant.

1.3 Documentation is referred to and/or completed.

### Outcome 2

Prepare and weigh and/or measure ingredients.

#### Performance criteria

2.1 Ingredients are checked for shelf life and signs of contamination.

2.2 Ingredients are prepared in accordance with recipe specifications.

Range may include but is not limited to – temperature, separating eggs, hydrating.

2.3 Reactive ingredients are kept separate during preparation.

Range may include but is not limited to – gelatine, egg yolks, egg whites.

2.4 Ingredients are accurately weighed and/or measured in accordance with recipe specifications.

### **Outcome 3**

Mix ingredients for meringue.

#### **Performance criteria**

3.1 Mixing equipment is selected to suit product and scheduled production.

3.2 Selected mixing equipment is and checked for cleanliness, and that it is free from contamination, and operational.

3.3 Ingredients are mixed at desired speed and for desired time and temperature.

Range cold or hot (Italian meringue).

3.4 Addition of further ingredients is carried out at sequence and pace in accordance with type of meringue produced.

Range cold or Italian.

3.5 Mixed meringue is checked to confirm it meets desired consistency and volume.

Range cold or Italian.

3.6 The mixing equipment is operated.

3.7 Mixing equipment is cleaned and made available in location for next user.

### **Outcome 4**

Cook marshmallow ingredients.

#### **Performance criteria**

4.1 Selected equipment is checked for cleanliness, and that it is free from contamination, and operational.

4.2 Sugar and water are heated to temperature.

4.3 Hydrated gelatine is added and dissolved thoroughly.

- 4.4 Sugar, water, and gelatine mixture are whisked to required consistency.
- 4.5 Marshmallow is checked that it meets recipe specifications.
- Range may include but is not limited to – consistency, volume, colour, gloss, smoothness.
- 4.6 Equipment is cleaned and made available in location for next user.

## Outcome 5

Pipe marshmallow and meringue products.

### Performance criteria

- 5.1 Piping equipment is checked for cleanliness, and that it is free from contamination, and operational.
- 5.2 Product is confirmed to be available at the temperature and quantity to meet production requirements.
- 5.3 Piping bag is neatly filled with product and correct diameter nozzle attached.
- 5.4 Product is piped.
- 5.5 Piped product is checked that it complies with product specifications.
- Range may include but is not limited to – shape, size, uniformity.

## Outcome 6

Dry meringue products.

### Performance criteria

- 6.1 Oven is checked for cleanliness, and that it is free from contamination, and available for drying.
- 6.2 Oven controls are operated according to recipe specifications.
- Range may include but is not limited to – temperature top and bottom, damper controls, time, alarms, fans, gas valves.
- 6.3 Meringues are dried in accordance with recipe specifications and production schedule.
- 6.4 Dried meringues are checked that they conform to product specifications.
- Range may include but is not limited to – colour, uniformity of drying, degree of drying, shape, size.

**Outcome 7**

Finish novelty marshmallow and meringue products.

**Performance criteria**

- 7.1 Finishing equipment is selected and operated to suit novelty product and scheduled production.
- 7.2 Selected finishing equipment is checked for cleanliness, and that it is free from contamination, and operational in accordance with workplace procedures.
- 7.3 Finishings are selected and applied in accordance with novelty product specifications.
- 7.4 Finished novelty products are checked that they meet product specifications.
- Range may include but is not limited to – size, shape, colour, evenness of colour, uniformity.
- 7.5 Equipment is cleaned and made available in location for next user.

<b>Planned review date</b>	31 December 2030
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	27 November 1998	31 December 2018
Review	2	20 April 2006	31 December 2018
Review	3	17 March 2016	N/A
Review	4	26 June 2025	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council [qualifications@hangaarorau.nz](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this unit standard.