

Title	Demonstrate understanding of snow, snowgrooming, and snowgroomers and their maintenance		
Level	4	Credits	12

Purpose	<p>This unit standard is intended for people who work, or wish to work in a snowgrooming role at a snowsports area.</p> <p>People credited with this unit standard are able to demonstrate knowledge of a snowgroomer and its maintenance; weather, terrain and nature of the snowpack in relation to grooming practices.</p>
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Classification	Snowsport > Snowsport Area Operations
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Available grade	Achieved
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Explanatory notes

- Definitions**

Organisational policy and procedures are instructions to staff that may be documented and available for reference at each alpine resort in the form of an operations manual and/or policy and procedures manual.

Snowsport area's *product* is defined in terms of the snow surface and conditions, its ability to be skied or ridden by a range of skier or boarder abilities, the expectations of customers, and the services provided by the snowsport area.
- All learning and assessment towards this unit standard must be carried out in accordance with the following:

 - Relevant legislation including the *Health and Safety at Work Act 2015*, *Accident Compensation Act 2001* and subsequent amendments and associated regulations;
 - Alpine industry codes and good practice guidelines including *Snow Safety Code* and *Outdoor Safety Code*; (available at <http://www.mountainsafety.org.nz>);
 - Organisational policies and procedures including Emergency Action Plans (EAPs), Standard Operating Procedures (SOPs), and the use of personal protective equipment.
- It is a legal requirement of the Land Transport (Driver Licensing) Rule 1999 to hold a Class 2 Driver Licence with a T endorsement when driving a snowgroomer on a snowsport area.
- Industry guidelines for recording snow and weather information are contained in the *New Zealand Guidelines and Recording Standards for Weather, Snowpack and Avalanche Observations*, (Wellington: New Zealand Mountain Safety Council, 2003).

Outcomes and evidence requirements

Outcome 1

Demonstrate understanding of a snowgroomer and its maintenance.

Evidence requirements

- 1.1 Components of a snowgroomer and their functions in relation to snowgrooming are explained using technical terms.
- 1.2 Pre-operation routine maintenance checks are completed in accordance with manufacturer's recommendations and snowsport area policy and procedures.
- 1.3 Machine lubrication points are identified and lubrication and fluid requirements are met in accordance with manufacturer's recommendations and snowsport area procedures.
- 1.4 Pre-check and maintenance logs are completed according to snowsport area operational requirements.
- 1.5 Start-up and shut-down procedures are demonstrated according to manufacturer's operating instructions and snowsport area procedures.
- 1.6 Actions of snow grooming personnel in the event of mechanical problems during operation of the snowgroomer are described according to snowsport area policy and procedures.

Outcome 2

Demonstrate knowledge of weather, terrain and nature of the snowpack in relation to grooming practices at a snowsport area.

Evidence requirements

- 2.1 Main natural terrain and artificial features of the snowsport area are described, including identification of snowgroomer access routes to each feature.
- 2.2 Local weather information is observed and interpreted to contribute to planning for snowgrooming.
- 2.3 Operating parameters of a snowgroomer are described in relation to terrain and comply with snowsport area policy.
- 2.4 Advantages and limitations of the performance of a snowgroomer are described for a range of snow and weather conditions.
- 2.5 Snowpack metamorphism and snow mechanics are explained, with reference to the effects of temperature, pressure, environmental conditions, and grooming practices on the snowpack over time.

Replacement information	This unit standard replaced unit standard 5624, 18100, and 21750.
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Consultation draft

Title	Operate snowgroomers safely and effectively to meet grooming requirements for a snowsports area		
Level	4	Credits	28

Purpose	<p>This unit standard is intended for people who work, or wish to work in a snowgrooming role at a snowsports area.</p> <p>People credited with this unit standard are able to demonstrate safety procedures and practice for snowgroomer operation and groom snow.</p>
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Classification	Snowsport > Snowsport Area Operations
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Available grade	Achieved
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Explanatory notes

1 Definitions

Organisational policy and procedures are instructions to staff that may be documented and available for reference at each alpine resort in the form of an operations manual and/or policy and procedures manual.

Snowsport area's *product* is defined in terms of the snow surface and conditions, its ability to be skied or ridden by a range of skier or boarder abilities, the expectations of customers, and the services provided by the snowsport area.

Information about *snowgrooming patterns* is generally learnt on-the-job from supervisors and experienced snowgroomer operators, and is sometimes available to staff working for the snowgrooming department of a snowsport area in the form of a company manual.

2 All learning and assessment towards this unit standard must be carried out in accordance with the following:

- Relevant legislation including the *Health and Safety at Work Act 2015*, *Accident Compensation Act 2001* and subsequent amendments and associated regulations;
- Alpine industry codes and good practice guidelines including *Snow Safety Code* and *Outdoor Safety Code*; (available at <http://www.mountainsafety.org.nz>);
- Organisational policies and procedures including Emergency Action Plans (EAPs), Standard Operating Procedures (SOPs), and the use of personal protective equipment.

3 It is a legal requirement of the Land Transport (Driver Licensing) Rule 1999 to hold a Class 2 Driver Licence with a T endorsement when driving a snowgroomer on a snowsport area.

- 4 Industry guidelines for recording snow and weather information are contained in the *New Zealand Guidelines and Recording Standards for Weather, Snowpack and Avalanche Observations*, (Wellington: New Zealand Mountain Safety Council, 2003).

Outcomes and evidence requirements

Outcome 1

Demonstrate safe work procedures and practices for snowgroomer operation at a snowsport area.

Evidence requirements

- 1.1 Safe working procedures and practices are followed during snowgrooming operations, and meet the requirements of health and safety legislation, and snowsport area policy and procedures.
- 1.2 Communication with relevant staff is maintained during snowgrooming operations and complies with snowsport area procedures.
- 1.3 Accident and emergency procedures during night operations are described and reflect snowsport area procedures.
- 1.4 Hazards are identified and communicated to management, patrol, or snow safety officer in accordance with snowsport area policy.
- 1.5 Required actions of snowgrooming personnel in the event of an emergency, accident or injury are described according to snowsport area procedures.
- 1.6 Hazards, hazardous areas and/or conditions within the snowsport area are identified and operating procedures for these explained to comply with snowsport area policy.
- 1.7 Safe snowgroomer operating practices for transporting people and equipment are described and applied in accordance with snowsport area policy and procedures.

Outcome 2

Groom snow to a snowsport areas specifications and requirements.

Evidence requirements

- 2.1 Snowgroomer is operated according to manufacturer's operating instructions and snowsport area policy.
- 2.2 Snow is groomed around features of the snowsport area according to snowsport area procedures and required standard.

- 2.3 Snowgroomer routes are selected and navigated during adverse conditions, using knowledge of snowsport area and mountain terrain, (and taking into account machinery, equipment, restricted areas, environmental conditions, and operational requirements).
- 2.4 Snow conservation techniques are described and applied in accordance with snowsport area requirements.
- 2.5 Snow is groomed to a snowgrooming pattern using a range of implements, and to the standards and requirements of the snowsport area.
- 2.6 Snowgroomer blade and tiller implements are used with competence to provide a quality groomed surface.
- 2.7 Knowledge of snow movement, slope maintenance and efficiency of grooming practices in relation to terrain and snow conditions are applied to effective snowgrooming techniques.
- 2.8 Spatial awareness is applied to effective and safe grooming.
- 2.9 Procedures for night operations, adverse weather and snow conditions are followed in accordance with snowsport area policy and procedures.
- 2.10 Advanced grooming skills are applied to create and maintain terrain for an event, race course, training area or park to meet the requirements of the snowsport area and/or event organisers.
- 2.11 Buildings and lift stations are dug out or cleared of excess snow to meet minimum clearance requirements, and without damaging buildings or equipment.
- 2.12 Records of snowgrooming are kept according to snowsport area requirements.

Replacement information	This unit standard replaced unit standards 18100, 21750, and 5624.
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