

Title	Adjust bicycles and fit accessories		
Level	3	Credits	3

Purpose	People credited with this unit standard are able to adjust bicycles for size and use of riders, and fit bicycle accessories.
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Classification	Retail, Distribution, and Sales > Bicycle Sales and Servicing
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Available grade	Achieved
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Guidance Information

- 1 It is recommended that people hold credit for Unit 20182, *Use equipment in a bicycle workshop*, before being assessed against this unit standard.
- 2 All tasks are to be carried out in accordance with organisational procedures, the organisation being the enterprise carrying out the work.
- 3 Performance of the elements of this unit standard must comply with the following standards, available through www.standards.govt.nz:
 Australian/New Zealand Standards
 - AS/NZS 1927:2010 *Pedal bicycles – Safety requirements*;
 - AS/NZS 2063:1996 *Pedal cycle helmets*;
 - AS/NZS 4287:1995 *Child carrier seats for pedal bicycles – Safety requirements*.
 New Zealand Standards
 - NZS 5441.1:1987 *Lighting and retroreflectors for pedal cycles – Specification for lamp units and retroreflectors suitable for fitting to pedal cycles*;
 - NZS 5441.2:1987 *Lighting and retroreflectors for pedal cycles – Code of practice for the fitting of lamp units and retroreflectors to pedal cycles*.
- 4 *Reference texts* may include but are not limited to – Barnett, John. *Barnett's Manual DX*. Current edition. Colorado Springs, Co: Barnett Bicycle Institute, and those that come with the bicycle.
- 5 Any relevant Acts, regulations, and bylaws must be complied with during assessment against this standard.
- 6 **Definitions**
Organisational procedures referred to in this unit standard may include but are not limited to the applicable procedures found in the following: organisational performance guidelines and standards; manufacturer's procedures and specifications; Government and local body legislation.
Tools and equipment mean industry approved tools and equipment that are recognised within the industry as being the most suited to complete a task in a safe, professional and competent manner.

- 7 Assessment evidence must be provided while carrying out commercial jobs in the workplace under normal workplace conditions.

Outcomes and performance criteria

Outcome 1

Adjust bicycles for size and use of riders.

Range bicycles – BMX, multi-speed, front suspension;
size – children and adults of different heights;
use – road cycling, off road cycling (mountain biking and BMX biking), touring.

Performance criteria

- 1.1 Seat is set to match rider's size.

Range seat – height, angle, positional rails;
rider's size – height, length of arms and legs.

- 1.2 Handlebars and stem are set to match rider's size.

Range handlebars and stem settings – height, length, angle, width, lever reach; rider's size – height, length of arms, length of fingers.

- 1.3 Clipless pedals are set to match rider's needs.

Range tension, position of pedal and shoe.

- 1.4 Bicycles are adjusted using appropriate tools and equipment.

Outcome 2

Fit bicycle accessories.

Range accessories – lights, reflectors, mudguards, trainer wheels, toe clips, shoes/pedals, cleats, helmets, child carrier seats, carriers, seat bags, computers;
evidence is required for the fitting of three accessories.

Performance criteria

- 2.1 Accessories are fitted with appropriate tools and equipment.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 August 2003	31 December 2018
Rollover and Revision	2	20 June 2008	31 December 2018
Review	3	8 December 2016	N/A
Revision	4	28 April 2022	N/A

Consent and Moderation Requirements (CMR) reference

0099

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Toi Mai Workforce Development Council qualifications@toimai.nz if you wish to suggest changes to the content of this unit standard.