

<b>Title</b>	<b>Adjust bicycles and fit accessories</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	<p>This unit standard is for people who are currently working, or intending to work, in bicycle repair workshops.</p> <p>People credited with this unit standard are able to adjust bicycles for size and use of riders, and fit bicycle accessories.</p>
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<b>Classification</b>	Retail, Distribution, and Sales > Bicycle Sales and Servicing
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<b>Available grade</b>	Achieved
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<b>Entry information</b>	
<b>Recommended skills and knowledge</b>	Unit 20182, <i>Use equipment in a bicycle workshop.</i>

### Explanatory notes

- All tasks are to be carried out in accordance with organisational procedures, the organisation being the enterprise carrying out the work.
- Performance of the elements of this unit standard must comply with the following standards, available through [www.standards.govt.nz](http://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*.
- 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.
- Any relevant Acts, regulations, and bylaws must be complied with during assessment against this standard.

## 5 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.

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

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## Outcomes and evidence requirements

### 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.

### Evidence requirements

- 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.

## Evidence requirements

2.1 Accessories are fitted with appropriate tools and equipment.

<b>Planned review date</b>	31 December 2021
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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

<b>Consent and Moderation Requirements (CMR) reference</b>	0225
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

### Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

### Comments on this unit standard

Please contact ServicelQ [qualifications@SericelQ.org.nz](mailto:qualifications@SericelQ.org.nz) if you wish to suggest changes to the content of this unit standard.