

Title	Rig single vertical rope systems for caving		
Level	5	Credits	6

Purpose	People credited with this unit standard are, for caving, able to: select natural anchors; select artificial anchors; rig single vertical rope systems; and maintain rigging equipment.
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Classification	Outdoor Recreation > Caving
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Available grade	Achieved
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Prerequisite	Unit 20823, <i>Operate vertical rope rescue systems for caving</i> , or demonstrate equivalent knowledge and skills.
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Guidance Information

- 1 For assessment purposes six caving trips, taking a minimum of four hours, are required.
- 2 All activities must comply with any relevant environmental, legislative and/or regulatory requirements set out in the *New Zealand Environmental Care Code*, Health and Safety in Employment Act 1992, Injury Prevention, Rehabilitation, and Compensation Act 2001, and their subsequent amendments. The *New Zealand Environmental Care Code* is available from the Department of Conservation, Head Office, PO Box 10420, Wellington.
- 3 There are minimum assessor requirements for assessment against this unit standard. The details of these requirements are available on the Skills Active website www.skillsactive.org.nz.

Outcomes and performance criteria

Outcome 1

Select natural anchors in caves.

Performance criteria

- 1.1 Natural anchors are selected taking into account loading, positioning, abrasion, and personal safety.

1.2 Natural anchors are selected taking into account personal safety.

Range may include but is not limited to – movement, fractures, founded on mud, size, dead trees.

1.3 Use of the natural anchor causes minimal environmental damage.

Outcome 2

Select artificial anchors for caving.

Performance criteria

2.1 Types of permanent anchors are identified.

Range may include but is not limited to – self-drilling bolts, chemical bolts, friction bolts, expanding steel props, metal stakes, fence posts.

2.2 Types of non-permanent artificial anchors are identified.

Range may include but is not limited to – hexes, nuts, jammed knots, pitons.

2.3 The limitations of artificial anchors are explained.

Range may include but is not limited to – corrosion, diameter, depth, age, steel type, movement, quality of rock, location, environmental damage.

2.4 Non-permanent artificial protection is placed.

Range may include but is not limited to – rock quality, direction of load, size, shape of crack, contact surface area.

Outcome 3

Rig single vertical rope systems in caves.

Performance criteria

3.1 Knots are tied and their limitations explained.

Range figure-eight on a bight, re-threaded figure-eight, directional figure-eight bowline, alpine butterfly, clovehitch, tape knot, double fisherman's, Italian hitch, bird's nest.

3.2 Rigger safety is maintained while rigging.

3.3 A safe anchor system is rigged.

Range must include but is not limited to – adequate anchors, angles, equalised loading, abrasion points, independent anchors.

3.4 Re-belays and redirectors are rigged where required.

Range may include but is not limited to – safety of re-belay, angle of redirector, ease of use.

Outcome 4

Maintain rigging equipment for caving.

Performance criteria

4.1 Equipment is maintained according to the manufacturer’s recommendations.

4.2 Equipment inspection identifies deterioration and the requirement for equipment retirement.

Range may include but is not limited to – fracture, wear, corrosion, abrasion, cuts, UV damage, age, history.

4.3 The importance of keeping an equipment log is explained.

Range log should include – age, history, use.

4.4 The care and storage of equipment is explained.

Range washing, drying, lubricating, storage, chemical contact.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 June 1996	31 December 2021
Revision	2	14 February 2000	31 December 2021
Review	3	29 October 2004	31 December 2021
Review	4	23 November 2017	31 December 2021

Consent and Moderation Requirements (CMR) reference	0102
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.