



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **SISOCAY303A Establish belays in canyons**

**Release: 2**

## **SISOCAY303A Establish belays in canyons**

### **Modification History**

Not Applicable

### **Unit Descriptor**

This unit describes the performance outcomes, skills and knowledge required to select anchors for the attachment of ropes and equipment for belays. These anchors are to be used in establishing belay systems and rigging rope pitches for canyoning. These systems must be able to accommodate different belayer and abseiler abilities in a single pitch context. Anchors must be selected from a diversity of locations, offering different environmental conditions, rock type and tree type.

### **Application of the Unit**

This unit applies to those working as canyoning guides or assistant guides required to establish belays for canyoning activities in a range of controlled single pitch locations with a variety of terrain obstacles, hazards and environmental conditions.

This unit also applies to outdoor recreation leaders working for outdoor education or adventure providers; volunteer groups; not-for-profit organisations or government agencies.

### **Licensing/Regulatory Information**

No licensing, regulatory or certification requirements apply to this unit at the time of endorsement.

### **Pre-Requisites**

Nil

### **Employability Skills Information**

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

### Elements and Performance Criteria

#### ELEMENT

#### PERFORMANCE CRITERIA

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

1. Select equipment for belay system.

1.1. Select a ***belay system*** that minimises ***environmental impact*** according to ***contextual issues***.

1.2. Identify and select ***equipment*** according to ***relevant legislation*** and ***organisational policies and procedures***.

1.3. Select ***anchors*** that meet the requirements of the abseil and abilities of the ***participants***.

1.4. Assess ***condition of the anchors***, including performance under ***likely load***, and stability of surroundings.

1.5. Choose a ***belay device*** that is suitable to the surface conditions and belayer's ability.

1.6. Complete all necessary equipment ***safety checks*** according to organisational policies and procedures.

2. Set up belay system.

2.1. Rig multiple anchors, ensuring equalisation and minimal shock loading.

2.2. Tie ***knots*** and rig ropes suitable for the type of belay system established.

2.3. Establish a belay from which the belayer is able to escape and safely perform a rescue.

2.4. Establish a belay that maintains safety of belayer and minimises movement of the belayer in the event of a fall.

2.5. Avoid or remove belay ***hazards*** to maintain ***safety of belayer***.

2.6. Determine the need for, and establish back up belay systems.

3. Rig rope pitches.

3.1. Identify safe access to and egress from the site according to relevant legislation.

3.2. Determine ascent and or descent route according to contextual issues.

3.3. Tie knots that are suitable for the type of system

**ELEMENT****PERFORMANCE CRITERIA**

established and for potential retrieval or rescue situations.

3.4. Set up anchors and ropes to facilitate rescue.

## **Required Skills and Knowledge**

This section describes the skills and knowledge required for this unit.

### **Required skills**

- problem-solving skills to:
  - minimise and or eliminate hazards
  - select anchors and belay systems for the context and conditions of canyoning activity
- rope handling and knot tying skills to rig ropes and anchors
- first aid and emergency response skills appropriate to the location to enable initial response to emergencies and personal health care.

### **Required knowledge**

- legislation and organisational policies and procedures to enable safe conduct and legal access of all belaying activities conducted in a canyon
- minimal impact canyoning codes to ensure protection of the environment
- equipment types, characteristics and technology used to establish belays for abseiling in canyons
- care and maintenance of equipment to ensure prolonged life span and safety requirements, as advised by the manufacturer's recommendations for equipment use
- belay and anchor systems appropriate for single pitch natural surfaces
- technical abseiling and equipment knowledge to establish top and bottom belays
- types of knots, their advantages and disadvantages, and their impact on roping activities
- emergency procedures, potential hazards and obstacles relevant to the location to ensure safety of self and others.

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- selects equipment and conducts safety checks to ensure effective working order
- differentiates between the types of belay systems, anchors and knots and their suitability to different rigging situations
- determines the need for, and establishes, back up belay systems to ensure safety of self and other participants.

#### Context of and specific resources for assessment

Assessment must ensure establishment of multiple belays to demonstrate competency and consistency of performance.

Assessment must also ensure access to:

- a suitable canyoning location with a vertical single pitch and simple obstacles and features that allow participant to demonstrate belay rigging skills
- equipment required for the establishment of belays.

#### Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of selecting equipment according to contextual issues
- oral or written questioning to assess knowledge of relevant legislation and organisational policies and procedures to ensure safe use of all equipment
- observation of safe participation and demonstration of setting up belay systems suitable to different contexts
- observation of dealing with contingencies, such as equipment failure
- third-party reports from a supervisor detailing performance.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- SISOCAY302A Apply vertical canyoning skills

- SISOVTR301A Perform vertical rescues.

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Belay system*** may include:

- top of a pitch
- bottom of the pitch
- self belay.

***Environmental impact*** may include:

- rock dislodgement
- compacting of soil
- effect on other users of the site
- damage to flora, fauna, and the environment.

***Contextual issues*** may include:

- weather conditions, including times
- season
- transport
- location
- trip distance and duration
- group objectives
- group size.

***Equipment*** may include:

- ropes
- tape slings
- karabiners
- rope protectors
- belay devices
- descending devices
- specific canyoning equipment.

***Relevant legislation*** may include:

- occupational health and safety
- permits or permission for access
- environmental regulations.

***Organisational policies and procedures*** may include:

- occupational health and safety
- emergency procedures
- communication protocols
- use and maintenance of equipment
- code of ethics.

***Anchors*** may include:

- natural
- fixed.

***Participants*** may include:

- experienced
- inexperienced
- adults

- Condition of the anchors*** may include:
- children.
  - age
  - location
  - wear
  - decay
  - corrosion
  - environmental stress
  - insect damage.
- Likely load*** may include:
- group size
  - set up
  - type of abseil conducted
  - abseiler ability
  - possible forces generated during a fall.
- Belay device*** may include:
- plate devices
  - auto-locking devices
  - tubular devices
  - Prusik cord and suitable friction hitch.
- Safety checks*** may include:
- A - anchors - secure and suitable to application
  - B - buckles - locked as per manufacturers recommendations
  - C - connectors - locked secured and oriented
  - D - devices - threaded correctly and secured
  - E - everything else including end or rope knots, friction, friction hitches, belayer ready, helmet chin strap, clothing, jewellery and hair secured
  - F - friend - cross check.
- Knots*** may include:
- end-of-rope knots
  - mid-rope knots
  - rope joining knots
  - tape knots.
- Hazards*** may include:
- temperature extremes
  - slippery or unstable terrain
  - dangerous animals and insects
  - stinging trees and nettles
  - dense vegetation
  - group management hazards.
- Safety of belayer*** may include:
- attachment to anchor or alternate safety system
  - positioning out of direct line of rock or equipment fall.

## **Unit Sector(s)**

Outdoor Recreation

## **Competency Field**

Canyoning