



# ASSESSMENT GUIDELINE

## Instruct in horizontal caving

**Unit Standard: 20131**

**Level: 5 Credit: 20 Version: 1**

**Published by Sfrito 2006**

### **Purpose:**

People credited with this unit standard are able to: prepare for instructing horizontal caving trips; teach skills, demonstrate instruction techniques, and provide leadership for caving trips; and evaluate the effectiveness of the instruction and leadership provided.

### **Prerequisites:**

Unit 424, Administer first aid in the outdoors; Unit 427, Cross rivers; Unit 431, Navigate in good visibility on land; Unit 451, Manage risk for an outdoor activity; Unit 6401, Provide first aid; Unit 20143, Demonstrate basic knowledge of theories associated with instruction and guiding in the outdoors; Unit 20159, Access and compare weather information for outdoor recreation; Unit 20160, Demonstrate knowledge of weather processes and their effects on outdoor recreation in New Zealand; and Unit 20822, Rig and operate handlines, ladders, and belay systems with safety in caves; or demonstrate equivalent knowledge and skills.

### **Special Notes:**

1. For assessment purposes 20 caving trips, each taking a minimum of four hours and/or 1 days caving, are required.
2. Instruction in horizontal caving will take place in a caving environment; however, performance criterion 2.1 be assessed against at instructional facilities.
3. 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.
4. Before a candidate can be assessed against this unit standard they need to have logged a minimum 20 days of personal experience and in addition a minimum of 10 days of instructional experience. When gaining instructional experience, the candidate is engaged in the role of instructor but has no responsibility for clients, although is responsible for self.
5. There are minimum assessor requirements for assessment against this unit standard. The details of these requirements are available on the Sfrito website <http://www.sfrito.org.nz/>.

**Overview of assessment:**

This assessment has 5 tasks:

- Task 1: Submit log and evidence of prerequisites
- Task 2: Plan for instructing a horizontal caving session
- Task 3: Instruction and Leadership throughout all interaction with participants
- Task 4: Instruct horizontal caving
- Task 5: Evaluate the instruction and leadership of the caving session

**Notes to Assessor:**

1. For Tasks 3 and 4 there are two types of evidence statements: one group relates to the instruction and leadership of the session (detailed under Task 3) and the other to the topic of instruction, details of which are adequately covered in the performance criteria (Task 4). The assessor is required to make a judgement about appropriateness given the possible variation in context, participant needs and NZQA unit level.
2. The candidate must be assessed instructing a group of real participants on a caving trip.
3. With regard to special note 1, the candidate is required to show evidence that they have the experience to perform to the standard required through logbooks, company records, attestation or practical demonstration. At least one trip of four hours is required for the assessment - it is the assessor's role to decide whether further assessment is required to fulfil the criteria

## Task 1: Submit log and evidence of prerequisites

**Overview of task:** The focus of this assessment is to ensure the prerequisites for units achieved and instructional time have been met

### Resources:

NZOIA, NZMSC, or EONZ Outdoor Leader Logbook or similar  
Candidate's NZQA Record of Learning.

### Instruction to candidate:

During this task you are required to provide confirmation that you have:

- the pre-requisite unit standards for this assessment (contact Sfrito or NZQA for assistance)
- the pre-requisite logged instructional sessions for this assessment

## Evidence/Judgement

- Assessor sights NZQA Record of Learning which confirms that the candidate holds:
  - 424 Administer first aid in the outdoors
  - 427 Cross rivers
  - 431 Navigate in good visibility on land
  - 451 Manage risk for an outdoor activity
  - 6401 Provide first aid
  - 20143 Demonstrate basic knowledge of theories associated with instruction and guiding in the outdoors
  - 20159 Access and compare weather information for outdoor recreation
  - 20160 Demonstrate knowledge of weather processes and their effects on outdoor recreation in New Zealand
  - 20822 Rig and operate handlines, ladders, and belay systems with safety in caves  
(or demonstrates equivalent knowledge and skills – in this case the assessor must record how this has been demonstrated)
- Assessor sights candidate's logbook which confirms that the candidate has logged:
  - 20 days of personal experience and in addition a minimum of 10 days of instructional experience  
(Evidence can be confirmed with a senior person from candidate's organisation or from the industry)

## Task 2: Plan for instructing a horizontal caving session

**Overview of task:** The focus of this assessment is to demonstrate the ability to plan for instructing a horizontal caving session, and demonstrate knowledge of caving emergency procedures.

### Resources:

- Allan, S. (2005). *Outdoor Activities – guidelines for leaders*. (Section A: General guidelines, pp. 2–22). Wellington: SPARC [www.sparc.org.nz/education/outdoor-activities-guidelines-for-leaders](http://www.sparc.org.nz/education/outdoor-activities-guidelines-for-leaders)
- Haddock, C. (2004). *Outdoor safety – risk management for outdoor leaders*. (Chapter 4, Tools, pp. 50–65; Chapter 8 & Appendix V, pp. 130–139). Wellington: NZ Mountain Safety Council.
- Priest, S. & Gass, M. (1997). *Effective leadership in adventure programming*. Champagne, Illinois: Human Kinetics.
- 20131 Assessment Questions (attached at the end of this document)
- 20131 Model Answers (available from a Sfrito Client Liaison)

### Notes to the assessor:

1. The activity and risk management plans must be for the instruction sessions in Tasks 3 and 4. The participants described in the plans will be those participants expected for the instruction sessions in Tasks 3 and 4.
2. The candidate may write one plan that incorporates activity plans and risk management plans for all of the instruction they will do, or they may write a number of separate plans. In either case they must do activity / risk management plans for all of the instruction for which they will be assessed.

### Instruction to candidate:

During this task you are required to write and present to the assessor plans for a caving trip:

- An activity or session plan (or plans)
- A risk management plan
- A plan for evaluation of the trip
- Demonstration of your knowledge of caving emergency procedures

### Element 1: Prepare for instructing in horizontal cave trips.

### Element 4: Provide leadership for horizontal caving trips.

Performance criteria	Evidence/Judgement
<p><b>1.1</b> The instructional objectives and requirements are identified.</p>	<p>The candidate writes an activity plan(s) and a risk management plan(s) for instructing a caving session. The plans meet organisation requirements and industry standards. The plans must meet current accepted instructional practice and must contain:</p> <ul style="list-style-type: none"> <li>• A description of the participant group, including needs, skills and experience.</li> <li>• Specific learning objectives that relate to:                             <ul style="list-style-type: none"> <li>- Group and individual needs</li> <li>- The environment to be used</li> <li>- Equipment that will be available</li> </ul> </li> </ul>
<p><b>1.2</b> Trips are selected and their selection justified based on the objectives to be achieved and the make up of the group.</p> <p>Range: group make up may include but is not limited to – age, culture, gender, health, ability, confidence, experience, emotional and intellectual needs, group size, skills to be taught.</p>	

<p><b>1.3</b> Trips are selected and their selection justified based on conserving the environment.</p> <p>Range: choice of cave, vulnerability of the cave, route selection (eg stream way versus dry levels), group size, group experience, light sources.</p>	<ul style="list-style-type: none"> <li>• Any other instructional objectives or requirements</li> <li>• Justification of activity plan on the basis of the participants, their needs and objectives.</li> <li>• A description of the cave and route that is intended to be used, including the range of caving environments that will be encountered on the trip.</li> </ul>
<p><b>1.4</b> Trip plans are prepared.</p> <p>Range: plans may include but are not limited to – accommodation, cost, access, weather, risk management, transport, equipment, food, contingencies, communication, personal details, intentions, resources.</p>	<ul style="list-style-type: none"> <li>• Justification of cave selection based on conservation principles of cave vulnerability, nature of the cave, group size and experience, light sources used, meeting learning outcomes and appropriateness of site as a teaching venue.</li> <li>• Strategies to minimise environmental impact</li> <li>• Environmental strategies and justification meet NZSS Cave Ethics</li> </ul>
<p><b>1.5</b> Pre-trip briefs for participants, staff, and other interested parties are prepared.</p> <p>Range: briefs may include but are not limited to – responsibilities, expectations, personal requirements, logistics.</p>	<ul style="list-style-type: none"> <li>• A risk management plan such as a RAMS form or similar, covering people, equipment and environment factors</li> <li>• An equipment list, including emergency equipment.</li> <li>• Emergency communication arrangements and roles to be taken in an emergency (these must fit into the procedural requirements of any organisation that is associated with the caving session)</li> </ul>
<p><b>1.6</b> Instruction plans are prepared to meet the learning objectives, taking into consideration the needs of the group and people, equipment, and environment issues.</p> <p>Range: plans may include but are not limited to – content, progressions, resources, environmental factors, contingencies, current professional technical information, balance of theory and practical components, retaining a positive learning experience.</p>	<ul style="list-style-type: none"> <li>• How intentions will be lodged with a responsible person</li> <li>• Permission requirements from land owners, managers, iwi, DOC (as appropriate)</li> <li>• Contingency plans and alternative routes in case of bad weather, flooded rivers or other possible events</li> <li>• A brief for participants, staff and other interested parties outlining, for example, gear requirements, meeting times, responsibilities</li> <li>• Other administrative arrangements necessary for the caving session to take place. For example accommodation, cost, food, fuel, personal details.</li> </ul>
<p><b>1.7</b> Evaluation methods and requirements are identified.</p>	<ul style="list-style-type: none"> <li>• A plan for post-trip evaluation by the participants, covering at least: <ul style="list-style-type: none"> <li>- Achievement of learning objectives</li> <li>- Achievement of personal objectives</li> <li>- The candidate's instructional/leadership style</li> </ul> </li> </ul>
<p><b>4.3</b> Emergency management is explained.</p> <p>Range: lost party member, hypothermia, injured caver, overdue party, flooding, entrapment.</p>	<p>Completes 20131 Assessment Questions</p> <ul style="list-style-type: none"> <li>• All questions are answered in full</li> <li>• Answers match 20131 Model Answers</li> </ul>
<p><b>4.4</b> Cave search and rescue is explained.</p> <p>Range: initiating a call out, field/underground controller, timeframes (delays in rescue), personnel, communication.</p>	

### Task 3: Instruction and Leadership

#### Throughout all interaction with participants - Tasks 3 and 4

**Overview of tasks:** The focus of this assessment is to instruct participants in horizontal caving

#### Notes to the Assessor

The following performance criteria and Evidence/Judgement applies to Tasks 3 and 4

#### Instruction to candidate:

During the following two tasks you are required to instruct caving skills according to current professional practice, covering:

- Different cave environments
- Cave trip management
- Caving technique
- Navigation
- Rigging and operation of handlines, ladder, and belay systems
- Rescue technique
- Care of equipment

#### Element 3: Demonstrate instruction techniques for horizontal caving.

#### Element 4: Provide leadership for horizontal caving trips.

Performance criteria	Evidence/Judgement
<p><b>3.1</b> Instruction skills and techniques are demonstrated that are relevant to the needs of the group and enable them to achieve the skills.</p> <p>Range: skills and techniques may include but are not limited to – different teaching styles, teaching progressions, checking for individual understanding after presenting skill progressions, adapting plans to suit needs, responsiveness to group dynamics, maintaining a positive environment;</p> <p>needs may include but are not limited to – individual's initial skill and understanding, different learning speeds, different learning styles, different communication styles.</p>	<ul style="list-style-type: none"><li>• The candidate uses activity plan(s) and risk management plan(s) from Task 2 appropriately, making adjustments as required based on needs of individual and group.</li><li>• Implements and monitors risk management strategies developed in Task 2</li><li>• Identifies and manages risks as they arise</li><li>• Discloses risks to the group and checks group members' readiness for the activity</li><li>• Shows obvious care for the environment through good role modelling</li><li>• Communicates emergency procedures to the group</li><li>• Instruction meets industry and organisation accepted practice</li><li>• Instruction style is flexible to meet the needs of participants (e.g. each participant's initial skill and understanding, different learning speeds, different learning styles, different communication styles)</li><li>• Varies instruction style (e.g. lecture, questioning, discovery)</li></ul>
<p><b>3.2</b> Rapport and/or a learning partnership is effectively established with the cavers.</p>	
<p><b>3.3</b> Progress of each caver is evaluated and accurate feedback is delivered in a manner that matches the needs and learning styles of each caver.</p> <p>Range: may include but is not limited to – constructive, timely, oral, visual.</p>	

<p><b>4.1</b> Leadership is demonstrated that ensures the needs of the group are met in a safe and positive environment throughout the caving trips.</p> <p>Range: may include but is not limited to – navigation, weather interpretation, river crossings, first aid, environmental care, group processes, communication, motivation, enthusiasm, role modelling.</p>	<ul style="list-style-type: none"> <li>• Creates positive learning environment and rapport with participants</li> <li>• Evaluates progress of each participant through observation and questioning, and gives appropriate feedback e.g. constructive, timely (immediately, or later 1-on-1), verbal (explanation) and visual (demonstration).</li> </ul>
<p><b>4.2</b> Risk management is demonstrated.</p> <p>Range: may include but is not limited to – water hazards, cold, fatigue, loose terrain, restricted spaces, slippery surfaces, group and leader positioning, instructor awareness, safe zones, communication.</p>	<ul style="list-style-type: none"> <li>• Checks for understanding</li> <li>• Demonstrates leadership skills to maintain a safe and positive environment. This could include technical skills such as navigation, weather or first aid; and group facilitation skills such as communication, enthusiasm, role modelling.</li> <li>• Maintains control of group and activity during normal and emergency situations (if they occur)</li> </ul>

<p><b>Task 4: Instruct horizontal caving</b></p>								
<p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• Normal horizontal caving gear for instructor and participants</li> </ul>								
<p><b>Element 2: Teach skills for horizontal caving trips.</b></p>								
<p><b>2.1</b> Instruction on different cave environments is provided.</p> <p>Range: <b>must include</b> -</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">- cave evolution</td> <td style="width: 50%;">- fossils</td> </tr> <tr> <td>- speleothems</td> <td>- sediment deposits</td> </tr> <tr> <td>- fauna</td> <td>- climate and energy processes</td> </tr> <tr> <td>- flora at the cave entrance</td> <td></td> </tr> </table>	- cave evolution	- fossils	- speleothems	- sediment deposits	- fauna	- climate and energy processes	- flora at the cave entrance	
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- speleothems	- sediment deposits							
- fauna	- climate and energy processes							
- flora at the cave entrance								
<p><b>2.2</b> Instruction in cave trip management is provided.</p> <p>Range: <b>must include</b> -</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">- conservation plan</td> <td style="width: 50%;">- hazard identification and management</td> </tr> <tr> <td>- intentions</td> <td>- group and personal equipment</td> </tr> <tr> <td>- respect for cave access</td> <td>- emergencies</td> </tr> </table>	- conservation plan	- hazard identification and management	- intentions	- group and personal equipment	- respect for cave access	- emergencies		
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- intentions	- group and personal equipment							
- respect for cave access	- emergencies							

**2.3** Caving technique instruction is given.

Range: **must include** -

- knots, care of environment
- efficient and safe movement
- climbing and squeezing techniques
- use of traverse and handlines
- communication
- body belay
- ladder climbing
- abseiling.

**2.4** Cave navigation skill instruction is given.

Range: **must include** -

- cave maps
- navigational aids

**2.5** Instruction is given in the rigging and operation of handlines, ladder, and belay systems.

Range: **must include** -

- sites are identified
- anchor selection
- knots
- selection of appropriate belay systems
- rigging
- safe operation
- communication, locking off

**2.6** Rescue technique instruction is given.

Range: **must include** -

- assisted hoist
- lowering off a belay system
- potential problems are identified

**2.7** Instruction is given on the care of equipment.

Range: **must include** -

- manufacturer's recommendations
- deterioration
- retirement
- maintenance
- storage.

**Task 5: Evaluate the instruction and leadership of the caving session**

**Overview of task:** The focus of this assessment is to evaluate the achievement of objectives, and evaluate the leadership and instruction of the caving session.

**Resources:**

- [www.reviewing.co.uk](http://www.reviewing.co.uk)

**Instruction to candidate:**

During the task you are required to:

- Obtain feedback from participants (as per your evaluation plan in Task 2)
- Discuss with the assessor the achieved outcomes, and the strengths and weaknesses of your instruction and leadership
- Write up a summary of the feedback received, and what you will do to act on it.

**Element 3: Demonstrate instruction techniques for horizontal caving.**

**Element 5: Evaluate the effectiveness of the instruction and leadership provided.**

Performance criteria	Evidence/Judgement
<p><b>3.2</b> Rapport and/or a learning partnership is effectively established with the cavers.</p>	<ul style="list-style-type: none"> <li>• The candidate obtains feedback and acts on it during the course of the trip.</li> <li>• Obtains feedback from participants as planned in Task 2 (Post-session evaluation)</li> </ul>
<p><b>5.1</b> The plans and objectives are evaluated against actual outcomes and reasons for changes are provided and justified.</p>	<ul style="list-style-type: none"> <li>• Participants' feedback indicate that they considered the instructor to have                             <ul style="list-style-type: none"> <li>- Established rapport</li> <li>- Been enthusiastic</li> <li>- Enjoyed the activities and the environment</li> </ul> </li> </ul>
<p><b>5.2</b> The instructional and leadership components of the caving trips are evaluated for strengths and areas for improvement.</p>	<ul style="list-style-type: none"> <li>• In a discussion with the assessor, the candidate covers:                             <ul style="list-style-type: none"> <li>- Their own evaluation of the trip and instruction, including strengths and weaknesses of their leadership and instruction</li> <li>- Participant feedback</li> <li>- Skills and knowledge that participants demonstrated</li> <li>- A comparison of planned objectives with achieved objectives</li> <li>- Justification for variance between planned objectives and achieved objectives</li> <li>- Areas for ongoing practice and improvement</li> </ul> </li> <li>• Writes a summary of the feedback received and a personal development plan</li> </ul>

Candidate Name \_\_\_\_\_ NSN \_\_\_\_\_

**Unit 20131 (v1) Checklist  
Instruct in horizontal caving**

Assessor name: \_\_\_\_\_

Organisation name: \_\_\_\_\_

C/NYC

Comments

**Task 1: Submit log and evidence of prerequisites**

- Assessor sights ROL and logbook confirming candidate holds:
  - 424, 427, 431, 451, 6401, 20143, 20159, 20160, 20822 (or equivalent)
  - 20 days personal and 10 days instructional experience

**Task 2: Plan for instructing a horizontal caving session**

- Plan(s) meet organisation requirements and industry standards.
- A description of the participant group
- Specific learning objectives
- Any other instructional objectives or requirements
- Plan(s) justified on basis of participants, their needs, objectives.
- A description of the cave and route that is intended to be used, with justification for selection
- Strategies to minimise environmental impact
- A risk management plan such as a RAMS form or similar
- An equipment list, including emergency equipment.
- Emergency communication arrangements and roles
- How intentions will be lodged with a responsible person
- Permission from land owners, managers, iwi, DOC
- Contingency plans and alternative routes
- A brief for participants, staff and other interested parties
- Other administrative arrangements necessary for the session
- A plan for post-session evaluation by the participants

- Completes 20131 Assessment Questions in full
- Answers match 20131 Model Answers

**Task 3: Instruction and Leadership - throughout all interaction with clients**

- Uses activity and risk management plans, adjusting as required
- Implements and monitors risk management strategies
- Identifies and manages risks as they arise
- Discloses risks to the group
- Communicates emergency procedures to the group
- Instruction meets industry and organisation accepted practice
- Instruction style is flexible to meet the needs of participants
- Varies instruction style
- Creates positive learning environment and rapport
- Evaluates progress of each participant and gives feedback
- Checks for understanding
- Demonstrates leadership to maintain safe & positive environment.
- Maintains control of group and activity during normal and emergency situations (if they occur)

<b>Task 4: Instruct horizontal caving</b>			
<ul style="list-style-type: none"> <li>• Different cave environments</li> <li>• Cave trip management</li> <li>• Caving technique</li> <li>• Navigation</li> <li>• Rigging and operation of handlines, ladder, and belay systems</li> <li>• Rescue technique</li> <li>• Care of equipment</li> </ul>			
<b>Task 5: Evaluate the instruction and leadership of the caving session</b>			
<ul style="list-style-type: none"> <li>• Obtains feedback and acts on it during the course of the session.</li> <li>• Obtains feedback from participants as planned in Task 2</li> <li>• Participants' feedback indicates positive outcomes</li> <li>• Evaluates instruction and areas for improvement with assessor</li> <li>• Presents summary of feedback and personal development plan</li> </ul>			
<b>DATE</b>	<b>CANDIDATE'S SIGNATURE</b>	<b>ASSESSOR'S SIGNATURE</b>	<b>C/NYC</b>
<b>Comments:</b>			



# ASSESSMENT GUIDELINE

## Instruct in horizontal caving

Unit Standard: 20131

Level: 5 Credit: 20 Version: 1

Published by Sfrito 2006

Candidate Name .....

The purpose of these questions is to demonstrate knowledge of emergency procedures for caving.

Answer all questions in full

Questions meet the requirements for PCs 4.3, 4.4

- 1. For each of the events below, describe what you would do if it occurred to your party or one of your team members.**

Lost party member

Hypothermia

Injured caver

Overdue party
Flooding
Entrapment

- 2. Describe how to initiate a Search and Rescue call out, and what are the likely events to follow**  
(covering field/underground controller, timeframes (delays in rescue), personnel, communication)