

## Cave 2



Photo: Neil Silverwood

## Scope and Syllabus

With the support of:



# NZOIA™ Cave 2

## Scope

### Cave 2 Profile

The NZOIA Cave 2 is able to:

- Demonstrate a range of effective personal skills
- Demonstrate effective SRT rescue techniques
- Role model and promote accepted cultural and environmental practices
- Apply weather and environmental conditions interpretation and forecasting skills
- Provide interpretive information about sites visited
- Manage a group during multi-pitch cave experiences
- Apply effective safety management
- Plan and prepare for multi-pitch deep cave experiences
- Prepare and deliver teaching sessions
- Teach safe, well managed Single Rope Technique (SRT) sessions

### Scope

The holder of this qualification can organise, instruct and guide all aspects of caving including multi-pitch experiences in deep caves, wet pitches, lead/aid climbing (to A1/Ewband 10 grades), and comprehensive SRT courses. Multi-pitch experiences are where ropes and anchors are the primary support between pitches distinct from caves with multiple single pitches.

### Prerequisites

Be a current Registered Member of NZOIA

Be 20 years old or over

Hold a current First Aid Certificate

Hold a current NZOIA Cave 1 qualification. Refer to NZOIA's policy for [exemptions](#).

Has successfully completed a Cave SAR Cave Rescue 2 (CR2) course

Have the following experience as evidence in a logbook:

**Total experience** – at least 80 days experience in at least 10 different caves (a cave day is considered to be at least 4 hours underground) including:

**Personal experience** - at least 40 days personal cave experience including a minimum of one multi-day trip requiring overnighting underground, and a minimum of three caves where a depth greater than 200m is reached, and at least one pitch requiring aid-climbing.

**Instructional experience** - at least 20 days instructing, leading or guiding groups in caves. At least 5 of these days will include co-instructing or working as an assistant instructor/trainee beyond the scope of Cave 1. Experience will include co-

instructing/guiding or working as an assistant instructor/guide. A valid teaching session is an organized event with expected outcomes.

**NZ Speleological Society (NZSS) involvement** – attend at least one NZSS expedition or 3 trips with the NZSS local club members which include: cave exploration and surveying; trips below 200m depth, leading a mixed ability club trip.

Total experience can include training course days. Training course days cannot be included in personal experience. The prerequisite experience requirements are minimums, extra days are recommended.

### **Registration and Revalidation**

Registration and revalidation with NZOIA provide proof of currency for NZOIA qualification holders.

## **Syllabus**

### **Assessment Notes**

The syllabus outlines what the content of the assessment will include and gives an idea of what assessment tasks the candidate will be asked to complete. All judgements on how the candidate meets the syllabus must be based on current good practice and industry standards.

Assessors use three types of direct evidence to judge a candidate's competency:

- Written questions/assignment
- Questioning and discussion
- Observation of practical tasks

Depending on location and conditions Assessor may use scenarios for candidates to demonstrate knowledge and skills

The NZOIA Cave 2 candidate is expected to demonstrate any of the competencies outlined in the NZOIA Cave 1 Scope and Syllabus, as well as the following competencies:

### **Technical Competence**

#### **1. Demonstrate an in-depth general knowledge relevant to caving**

The candidate will describe or discuss:

- 1.1** Current conservation practices and techniques for caves
- 1.2** The development of speleology as a sport and current developments and trends
- 1.3** The NZSS role in caving
- 1.4** The NZSS ethical Code for cavers
- 1.5** The NZ Cave Search and Rescue (SAR) system and the cavers role
- 1.6** Cave surveying and mapping skills

## **2. Demonstrate the care and correct use of cave equipment and clothing**

The candidate will:

- 2.1** Carry and use equipment, clothing and footwear that is in good condition and is fit for purpose for the environmental conditions
- 2.2** Use equipment in accordance with the manufacturer's recommendations and current good practice
- 2.3** Have and in-depth knowledge about clothing and equipment commonly used for caving in Aotearoa including; types, characteristics, advantages, limitations, cost, care, maintenance and storage for a range of equipment e.g. lights, static rope, tubular tape, abseil and belay devices, prussik cord, helmets, harness, karabiner types, cowstails/lanyards, rack, rapides, pulley, bolts and hangers, jammers, chest harness
- 2.4** Complete a pre-activity check of equipment and describe how to identify worn or damaged equipment (including logging systems and maximum life)

## **3. Demonstrate land and underground navigation to remote and complex cave systems**

The candidate will demonstrate the following using topographical and/or cave maps:

- 3.1** Navigate across varied off track terrain in and above the bush line, using a map, compass and/or natural features to locate a given cave site
- 3.2** Navigate through complex cave systems to a clearly defined feature
- 3.3** Locate their position on a map above ground and underground

## **4. Construct a variety of efficient rigging systems for multi-pitch caving**

The candidate will construct at least two multi-pitch rigging systems that demonstrate the use of:

- 4.1** Placed protection e.g. wires, stoppers, hexes, camming devices
- 4.2** Fixed protection e.g. bolts, chains, waratahs, bollards, trees or threads
- 4.3** Linking multi-point anchors (defined as three or more)
- 4.4** Appropriate system and location for the site

## **5. Demonstrate efficient personal caving techniques**

The candidate will demonstrate:

- 5.1** Packing rope bags for leading pitches
- 5.2** Multi-pitch ascending and descending including change overs
- 5.3** Passing a knot on ascent and descent
- 5.4** Constructing and negotiating re-directors and re-belays
- 5.5** Constructing and use of traverse lines
- 5.6** De-rigging without leaving gear or equipment behind

## **6. Demonstrate SRT rescue skills in a multi-pitch environment**

The candidate will demonstrate:

- 6.1** Tying an improvise harness
- 6.2** Rescuing an unconscious caver on a pitch e.g. lower, haul, abseil, mid-rope rescue

## **The Environment**

### **7. Apply weather and environmental conditions interpretation and forecasting skills**

The candidate will:

- 7.1** Demonstrate knowledge and use of synoptic weather maps and using different sources of weather information make a general forecast about; wind direction and speed, temperature and precipitation for a given caving area
- 7.2** Demonstrate the ability to anticipate weather conditions from changes in clouds, temperature and wind direction prior to descending into a cave and based on these observations make a 24 hour forecast
- 7.3** Describe the implications to a given cave based on the forecast

### **8. Role model and promote accepted environmental practices**

The candidate will:

- 8.1** Understand the broader social and political issues regarding land/water use, resource management and conservation in Aotearoa's cave regions, and the effects of these on outdoor recreation
- 8.2** Demonstrate and/or describe the responsibilities to land owners and other users including access protocols
- 8.3** Role model and promote the principles of Leave No Trace
- 8.4** Role model and promote the NZ Speleological Society's Code for cavers
- 8.5** Discuss common impacts of visitation on cave features and minimise this through route selection
- 8.6** Discuss the issues with disseminating information about significant or vulnerable caves

### **9. Demonstrate historical and environmental knowledge and interpretation**

The candidate will understand and provide interpretive information about:

- 9.1** A broad knowledge of the flora, fauna, geology and history of Aotearoa caving regions/environment
- 9.2** The formation of caves, natural features and types of processes at work e.g. speleothems, sediment deposits, fault lines, rock types, cave lifecycles, cave types, stream and drip



## **Group Management and Leadership**

### **10. Manage clients during a multi-pitch cave experience**

The candidate will be responsible for clients during a multi-pitch cave experience and demonstrate:

- 10.1** Facilitating an effective brief and debrief
- 10.2** Efficient assessment of client suitability for the terrain
- 10.3** Pre-activity checks
- 10.4** Managing time appropriately in relation to the activity plan and conditions
- 10.5** Efficient management of the group both ascending and descending a multi-pitch route
- 10.6** Managing and monitoring client's physical and emotional wellbeing including their nutritional and hydration needs
- 10.7** A leadership style that is appropriate for the clients; their skill and experience level and their needs
- 10.8** Establishing rapport with clients in a manner that embraces diversity and maintains a positive learning environment
- 10.9** Coaching and motivating clients to promote interest, engagement and to create a positive experience

### **11. Apply effective safety management**

The candidate will:

- 11.1** Have a first aid kit and be able to deal with first aid situations as required
- 11.2** Carry appropriate safety equipment relevant to the trip
- 11.3** Demonstrate awareness of the risks and appropriate risk management strategies during a cave trip and the ability to adjust plans when required
- 11.4** Be able to recognise and efficiently manage changing situations
- 11.5** Demonstrate the knowledge and ability to identify, assess and manage natural hazards in a cave environment. These include; extreme weather, flood, rock fall, volcanic events, geothermal, earthquakes
- 11.6** Disclose relevant hazards and risks to clients
- 11.7** Take reasonably practicable steps to eliminate or minimise the effect of significant risks for self and others
- 11.8** Demonstrate safe practices and good judgement and decision making
- 11.9** Describe procedures in an emergency including; assessment of the situation, managing casualties, effective call for outside assistance, and managing reminder of group
- 11.10** Manage clients' safety by; appropriate route and site selection, harness checks, use of helmets etc.
- 11.11** Use effective communication and a systematic checking system with clients during ascending and abseiling

## **Instruction**

### **12. Prepare and deliver teaching sessions**

The candidate will:

- 12.1** Develop aims based on knowledge of clients and timeframes
- 12.2** Plan a logical sequence of teaching progressions
- 12.3** Select and prepare a suitable location for client success
- 12.4** Facilitate a safety meeting and outline the learning outcomes
- 12.5** Demonstrate a wide and in-depth knowledge of the topic
- 12.6** Use a variety of clear demonstrations and explanations
- 12.7** Be able to discuss the theory behind a particular technique
- 12.8** Use appropriate terminology
- 12.9** Use a range of teaching skills and methods e.g. appropriate voice, language and body language, teaching/visual aids, teachable moments, evaluation of learning
- 12.10** Provide opportunities for clients to practice
- 12.11** Deliver a variety of feedback methods that are timely and specific
- 12.12** Adapt the session to suit the client needs and progress
- 12.13** Maintain a positive learning environment

### **13. Teach caving skills**

The candidate will teach (must include but is not limited to):

- 13.1** Rigging for horizontal caves including those that may require short vertical pitches e.g. handlines, traverse lines, abseils
- 13.2** Rigging for vertical, multi-pitch caves e.g. re-belays, re-directors, pendulums
- 13.3** Ascending and descending a multi-pitch route