



PROCEDURE

Cataract Scout Park – Abseiling Tower



Issued with the authority of the Head of Risk and Commercial Manager
of Scouts Australia NSW

		Head of Risk Signature	
Sponsor	Activities Manager, CSP	Commercial manager Signature	
Document type	Procedure	Date of issue	7 November 2019
Document code & no.	PRO 34	Version number	4.0
Document title	Cataract Scout Park – Abseiling Tower	Due for review	Nov 2022 earlier if changes are needed

Cataract Scout Park-

Abseiling Tower

Contents

1	Location	3
2	Aims of the Abseiling Tower Activity	3
3	Pre-Activity Checks	3
	Weather conditions appropriate	3
	Medical	4
	Supervision	4
	Equipment (Per side of tower- 2 abseil lines).....	4
	Tower Capacity	4
	Activity Setup	4
	Instructor & Participant Safety	5
	Qualified Activity Instructor and Assistant Instructor's Role.....	9
4	Essential Briefing.....	10
	Supervising Adult/Teacher's Role.....	10
	Participant Briefing	10
	- General	10
	- Helmet	11
	- Harness	11
	- Abseil Demonstration	12
5	Rescue Procedures.....	13
6	Debriefing	14
7	Packing Up	14
	On site.....	14
	Final pack up at Equipment Shed	14

1 Location

- The Abseiling Tower is located at the end of Moore Road, next to the Artificial Rock Climbing Wall next to the Soapy Water Dam. The Abseil Tower also is used to access the Flying Fox however this SOP ONLY covers the abseil component. For the flying fox activity, refer to [Scouts NSW SOP 39 CSP Flying Fox](#).

2 Aims of the Abseiling Tower Activity

- To implement 'challenge by choice' by:
 - Enabling participants to expand their comfort zones, take initiatives and stretch their limits. (Necessary information and details are provided so that all participants can make an informed decision whether to participate in the activity and to what extent.)
 - Respecting each individual's limits, strengths and weaknesses so that no participant is 'forced' to do anything outside their wishes.
 - encouraging others, no matter what their decision.
- To overcome the fear of heights through determination and communication.

3 Pre-Activity Checks

- Check weather forecast as below.
- Complete usage log – insert tally mark on the correct date. Check for any previous comments regarding equipment and, if any, ensure they have been addressed.
- Ensure all equipment is accounted for.
- Check all equipment before the activity begins to ensure that it is safe, clean and in working order.
- Check the activity site for hazards (fallen trees, branches, excessive leaves, snakes, etc.).
- Ensure **liability forms** have been signed and participants are present during the Essential Briefing.
- Ensure the activity is checked regularly as per the Activity Maintenance Schedule.

Weather conditions appropriate

- A BOM Weather check should be done first thing in the morning.
- Activity **cannot** be conducted during storms, heavy rain, lightning or heavy winds at a Beaufort scale of 6+ (= 41-50km winds – large branches sway, umbrella used with difficulty).
It is at the discretion of the Program Coordinator whether the activity continues or not. In the case of a severe weather warning being issued for the area, the Program coordinator must document justification of their decision.
- Specific consideration must be given to:
 - Water on climbing surfaces making them slippery.
 - Mud/sand/soft fall causing damage to equipment.
 - Total Fire Ban & Fire Danger Warning level must be assessed by Program Manager
 - General health and wellbeing of the group (it is extremely important to consider the effects of the weather on the participants, not only on the infrastructure and equipment).

- Obtain briefing from Supervising Adult/Teacher on particular medical needs for each group.
 - Instructor must carry a first-aid kit at all times, located in the kitchen of the office.
 - Maximum weight of any individual on the activity is 120Kgs.
- NB: Instructor must have current first-aid qualifications.

Supervision

- 1 Qualified Activity Instructor
- 1 Assisting Activity Instructor
- 1 Supervising Adult/Teacher

Equipment (Per side of tower- 2 abseil lines)

- 6 Participant Blue waist harnesses
- 6 Participant helmets
- 1 Participant Safety line consisting of:
 - 1 white static rope
 - 3 screw gate carabiners
 - 2 pulleys
- 2 Static rope abseil lines
- 2 Dynamic rope belay lines
- 2 White belay slings
- 2 Belay devices – (ATCs)
- 14 Carabiners
- 6 “Figure 8 descenders” and accompanying carabiners
- 6 Gloves
- 3 Daisy chains – one for participant safety and two for instructors safety*
- 2 Instructor waist harnesses*
- 2 Instructor helmets*

Tower Capacity

Recommended limit is 18 people of the top platform. It may hold 37 people in an emergency.

Recommended limit is 6 people for each staircase platform. They may hold 10 people in an emergency.

Activity Setup

- Ensure that all participant harnesses and helmets are set up neatly either in the Flying Fox shipping container or in a plastic container near the Abseil Tower
- Ensure the gloves, figure 8 descenders and accompanying carabiners are placed with the harnesses and helmets
- Unlock the Abseil Tower and make sure the access steps and platforms are safe and in good working order.
- Perform a routine visual check of the Abseil Tower prior to use and report any hazards to the Program Coordinator immediately.
- Ensure that the ‘drop zone’ is clear prior to the start of the session.
- Ensure that your own safety is first priority during the set-up procedures and must make yourself ‘safe’ as soon as possible.
- Untie the ‘telstra rope’ on the gates that will be used for the abseils and wrap the rope out of the way.

*If an instructor uses their own personal gear, it must be in proper condition and maintained to the same equipment standards as Cataract Scout Park.

- Ensure that all of the following abseiling equipment has been inspected and is in safe working order before use. If any equipment is unsafe to use, it must be reported to the Program Coordinator immediately and taken out of service to prevent anyone else using it:
 - Anchors – check for excess wear, alteration of original shape, surface cracks, sharp edges, burrs, corrosion or heat damage.
 - Belay device (ACT) – check as for anchors and that the device is operating in accordance with the manufacturer’s recommendations.
 - Carabiners – check as for anchors and belay device.
 - Ropes/Belay slings – check, by ‘flaking’ the rope out, for abrasion, glossy or glazed areas, signs of melting, inconsistent diameter, discoloration, inconsistency in texture and stiffness.

Instructor Safety: (See image 1.1)

- Attach two daisy chains to the appropriate permanent eye bolts on the Abseil Tower via carabiners (the daisy chains will be connected to the instructors’ harnesses with a larks foot knot).
- A helmet must be worn at all times when on the tower.

Participant safety (See image 1.2, 1.3, 1.4)

- Participants will use either the daisy chain (for the closest abseil to the staircase) OR the safety line on a pulley system (for the furthest abseil from the staircase) as follows:

Daisy Chain

- Attach the final daisy chain to the appropriate permanent eye bolt on the Abseil Tower via a carabiner. Ensure there is a carabiner on the loose end of the daisy chain to connect to the participant.

Safety line on a pulley system

- Follow the instructions below to create the participant safety line:
 - Clip a carabiner and pulley to the appropriate back-up cable of the Flying Fox.
 - Clip another carabiner and pulley to the permanent eyebolt that is directly opposite the carabiner on the Flying Fox cable.
 - Feed the participant white static rope through the tops of the two pulleys that are opposite each other and tie the ends of the rope together using a ‘double fisherman’s knot’. Ensure there is at least one hand span’s length of tail in each end of the rope.
 - Create a large bight in the rope directly next to the ‘double fisherman’s knot’ and tie an ‘alpine butterfly knot’ to remove as much slack as possible from the system.
 - Tie a ‘figure 8 on the bight’ and attach to it a screw gate carabiner for the participants to clip into. Ensure that there is no more than a four finger space in the knot.

Belay line (See image 1.1)

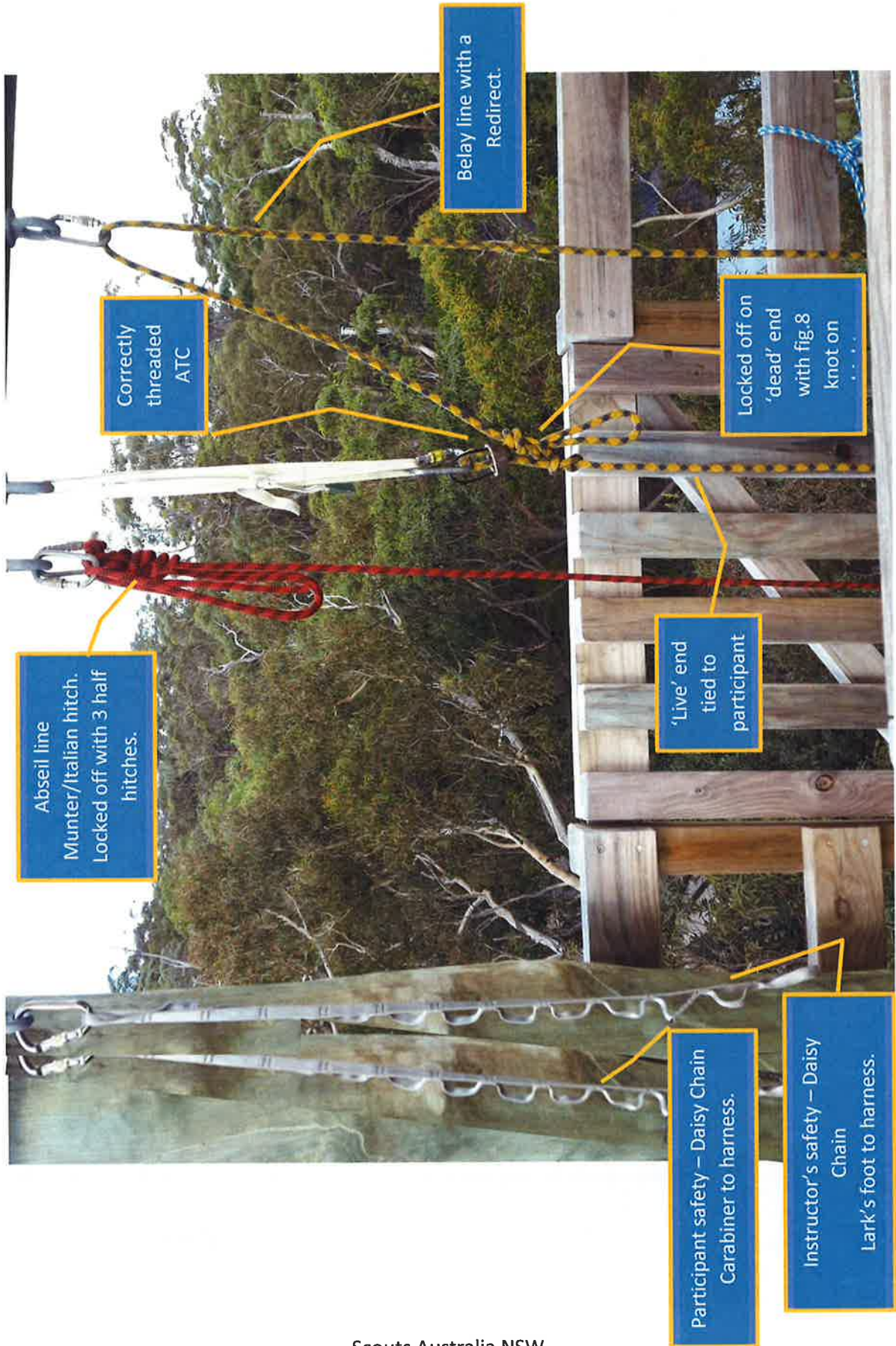
- Follow the instructions below to create two separate belay lines:
 - Feed the belay sling through one of the permanent eyebolt anchors (located on the steel beam at the top of the Tower). Clip the two ends of the belay sling together with a carabiner and attach the carabiner to a belay device (ATC). Thread the dynamic belay line through the belay device (ATC).
 - Tie a figure 8 knot in both ends of the dynamic belay line. Then tie a figure 8 on a bight next to the belay device (ATC) on the ‘dead end’ of the line, which is the opposite side to where the participant will be tied in (‘live end’), in order to stop the belay line from running through the belay device until the participant is ready to descend the abseil.
 - Set up a ‘redirect’, with another carabiner, onto the permanent eyebolt anchor directly next to the belay line set up. Feed the belay line through this carabiner so you are pulling down on the rope whilst belaying.

- Repeat all the above for the second belay line.

Abseil Line (See image 1.1)

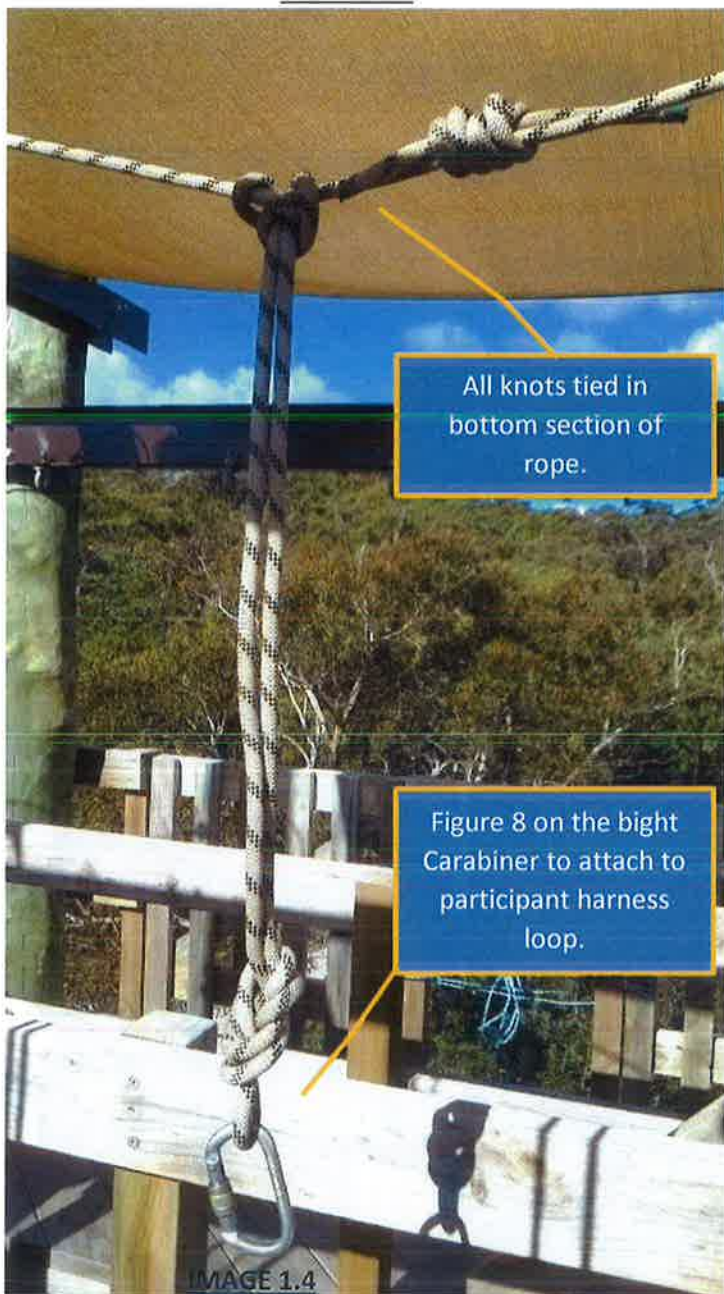
- Follow the instructions below to create two separate abseil lines:
 - Connect a carabiner to a 3rd permanent eyebolt, on the Abseil Tower, that is not already being used for the belay line or 'redirect'.
 - Uncoil and allow one of the abseil lines to hang to the ground before tying the following knots. This will ensure that the length of rope is correct.
 - Attach the abseil line to the carabiner via a Munter/Italian Hitch, and finish with half hitches on the bight below the carabiner, to secure the line. Connect the bight, via a carabiner, to the same permanent eyebolt as the abseil line in order to avoid the half hitches releasing. There should be a tail end of at least 30cm once the above knots have been tied.
 - Double check that the abseil line is able to reach the ground but is not so long that it would be difficult to pull through the figure 8 descender once the participant has reached the bottom of the abseil.
 - Repeat all the above for the second abseil line.

IMAGE 1.1

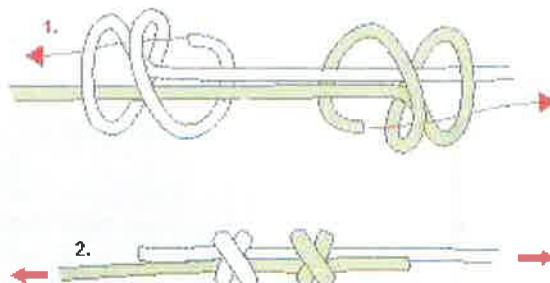


Scouts Australia NSW

IMAGE 1.2



Double Fisherman's



Alpine Butterfly

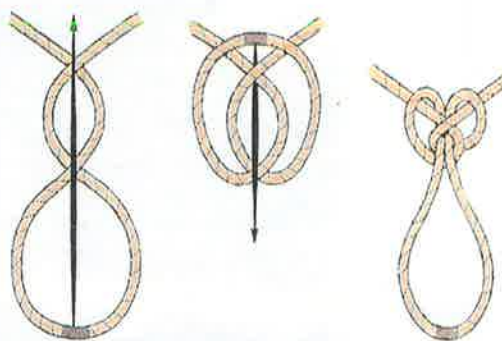


Figure 8 on the bight

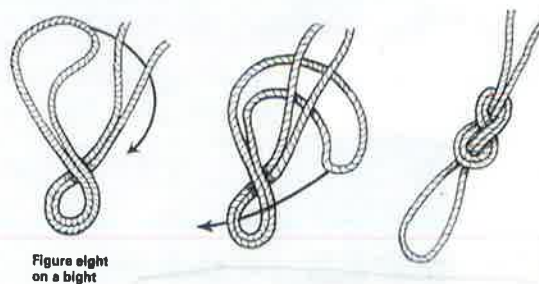
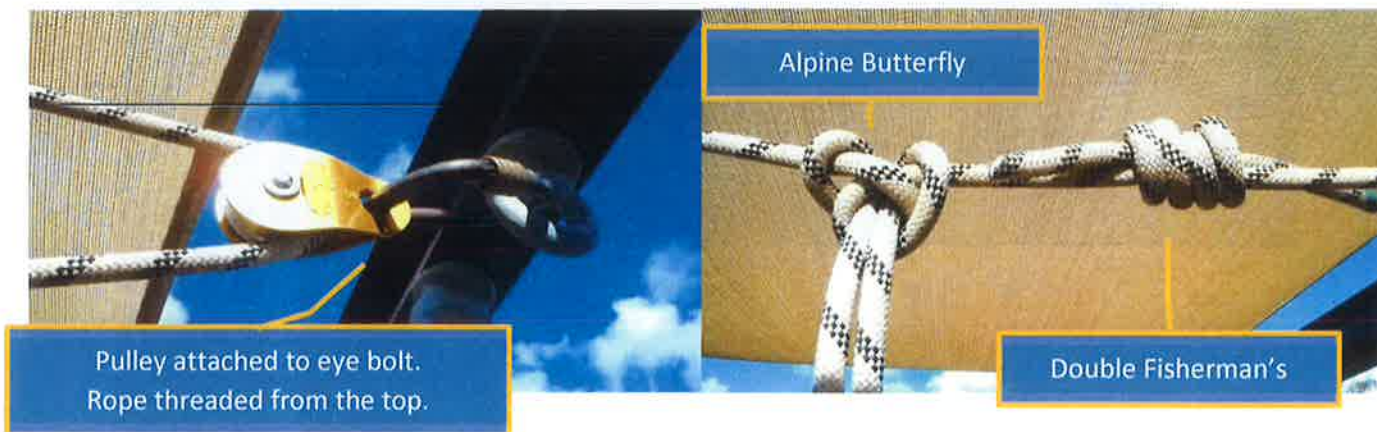


Figure eight on a bight

IMAGE 1.4



Qualified Activity Instructor and Assistant Instructor's Role

- The Qualified Activity Instructor must be signed off on induction and competent in operating and running an abseil session, including rescue procedures, before taking the responsibility of the session.
- The Assistant Activity Instructor must be signed off on induction and competent in assisting with an abseil session, including rescue procedures.

The following instructions apply to both the Qualified Activity Instructor and the Assistant Activity Instructor:

- Both instructors need to be up on the tower at all times to belay the participants.
- All instructors must be connected to the anchor points on the tower via a daisy chain at all times.
- A helmet must be worn by all instructors at all times whilst on the activity or tower.
- The abseil setup must be the same setup as at induction (refer to Activity Setup and Diagrams).
- Participants must be clipped into a safety line, immediately at the top of the staircase, via either the daisy chain or the safety line on the pulley system, depending on which abseil they will be using.
- A figure 8 on the bight must be tied in the "dead end" of the belay rope (live end tied to participant) before the participant arrives at the top of the abseil.
- The participant is to be tied into the belay line as soon as they reach the top of the abseil.
- A head to toe check must be performed before the participant can abseil. If the participant fails the head to toe check they must return to the level below to correct the problem.
- The participant is to be attached to:
 - the 'live end' of the belay line by tying a rethreaded figure 8 into their black harness loop and
 - the abseil line via the figure 8 descender and carabiner.
- The abseil must be visually checked before each participant is set off.
- The participants are to be instructed on how to abseil, given final reminders on safety if necessary, and encouraged when they are ready.
- All rescues are to be carried out, or supervised, by the Qualified Activity Instructor.
- In a rescue situation, it may be necessary for a decision to be made to partially or completely discontinue the activity. This decision is to be made by the Qualified Activity Instructor.

NOTE: Each instructor conducting the abseil activity must check the setup of the activity before their session begins regardless of who set it up and how many sessions have been run already.

4 Essential Briefing

Supervising adult /Teacher's role

- Supervising Adults/Teachers work in conjunction with a Qualified Activity Instructor and Assisting Activity Instructor and do not assume responsibility for technical aspects of the activity.
- They are responsible for supervising participants waiting in the designated area and have a duty of care to all participants throughout the entire activity.
- They are expected to:
 - Be a role model and exemplar for the participants and follow all safety rules.
 - Assist with the fitting of helmets and harnesses as necessary.
 - Assist with the detaching of participants from the abseil system as explained below.
 - Supervise the participants on the ground during the activity.
 - Provide positive reinforcement and support for all levels of achievement.

Note: If time allows for the Supervising Adults/Teachers to participate they should wait until the end of the session.

Participant Briefing

The following sets out all the essential points that must be explained before any participant is allowed to attempt the activity.

It is the responsibility of the Qualified Activity Instructor to ensure that all participants have fully understood the Essential Briefing before commencing the activity. It is the decision of the Instructors regarding whether or not a participant is ready to take part in the activity safely.

General

- Introduce yourself and your assisting instructor.
- Outline 'aims' of the activity. Explain what 'challenge by choice' means. (See 'Aims' section of this document).
- Explain what abseiling is, namely, walking backwards down a wall using a rope and that this particular abseil will be done on a 13 metre high artificial surface.
- Explain to the participants that they will be attached to two ropes one of which will be used by the Instructors from the top of the Tower to keep them safe.
- Instruct the participants to:
 - Not stand in the 'drop zone' at the bottom of the abseil.
 - Not leave the open area without permission.
 - Wait in the 'safe zone' where they will be putting on a harness and helmet before their turn.
- Explain the Tower rules as follows:
 - Once a participant has put on their harness and helmet, they are to walk into the tower through the open door, ensuring that they do not pass through the 'drop zone'.
 - There is to be only one person at a time on each staircase and a maximum of six people per level.
 - Participants are to wait at one level below the top to be called up by the Instructor.
 - All hands, cameras and the like must be kept INSIDE the tower at all times.

Helmet

- Explain that all hats and hair clips etc. must be removed and long hair must be tied in a low pony tail at the base of the neck.
- Explain 'happy turtle': if helmet is ever put down, it must be placed upright, and not on its 'shell', to avoid damage to the helmet.
- Hold a helmet up to the participants and show them how to identify the front by the Edelrid brand name.
- Show them the rear adjustment strap and how to tighten/loosen the helmet as follows:
 - open the clip on the strap so the strap moves freely,
 - ensure that the strap remains threaded through the clip,
 - keep the clip open and hold strap in place whilst placing the helmet on your head,
 - pull the strap so it becomes tight on your head and then push the clip closed to secure it.
- Do a 'shake test': shake your head around or hold your head upside down to show the helmet can stay on while the chin strap is not done up (the rear adjustment strap holds it on tight).
- Explain that there should be two fingers distance between their eyebrows and the lip of the helmet.
- Do the chin strap up and explain that, just like a bike helmet, participants should be able to run two fingers inside the strap from ear to ear to ensure that the helmet is neither too tight nor too loose and so the strap won't be able to pass over their chin.

Harness (see image 2.1 and 2.2)

- Explain to the participants the type of harness they are wearing (waist harness).
- Point out the figure 8 descender and carabiner attached to the harness.
- Make it **EXTREMELY** clear that the figure 8 descender **MUST NOT** touch the ground and is not to be removed from the harness.
- Demonstrate the correct fitting of the harness (see below). Mention that the harness also must be kept out of the dirt.
- Point out the key features of the waist harness (one waist loop, two leg loops, three buckles, one black harness loop). Show participants how to hold the harness so it's not tangled (three buckles pointing the sky).
- Show them how to step into the harness (like a pair of shorts).
- Black harness loop must be at the level of their belly button, the waist loop above their hip bones.
- Tighten the waist strap first, then both leg loops.
- Show the participants how to check that the harness is tight enough (paper rock method): Create a flat hand (paper) and slide it down the side of their harness, then make a fist (rock). If they can pull the fist back out of the harness without flattening their hand then they will need to tighten the waist loop more.
- Tuck all extra straps away in the black elastic loops.



Image 2.1



Image 2.2

Abseil Demonstration

- Talk the participants through, and demonstrate the steps of abseiling as follows:
 - Explain that they will be connected to:
 - The belay line, such that it will be held by the Instructor as their backup if they let go of the abseil line. Show them the re-threaded figure 8 knot and how to untie it once they're at the bottom of the abseil.
 - The abseil line. Explain, and show, how the figure 8 descender and carabiner are attached. Make it clear that **ONLY** the Instructors can remove the figure 8 descender and carabiner from the harnesses and explain, and demonstrate, how the descender works.
- Explain the 'Go' position: participant holds the abseil line with their gloved hand behind and to the side of the body and with their grip loose on the abseil line to allow it to slide through the figure 8 descender.
- Explain the 'Lock off' position: participant holds the abseil line tightly with their gloved hand behind them at the small of their back (thumb to bum).
- Explain that the participant's other hand **MUST** be kept away from the figure 8 descender. If the participant wishes to hold something, the hand may be placed (like a cowboy) in the waist loop next to the black harness loop.
-
- Explain the abseil stance: Participant stands with their feet flat on the wall, shoulder width apart, and legs straight. Show them how to lower into the "L" position, feet **FLAT** on the wall.
-
- Explain to participants the importance of maintaining the "L" position to avoid falling upside down, to avoid 'kissing the wall' and to control their descent.
-
- Explain that when the participant reaches the ground:
 - They can untie their belay line.
 - The instructor will pull the abseil rope from the participant's figure 8 device, when it is safe to do so.
 - They will be directed back to the 'safe' area to give their harness and helmet to the next person.

5 Rescue Procedures

As the instructor on belay, you must keep watch on the participant the WHOLE way down the wall.

To reduce the need for a rescue, if you notice anything such as hair coming close to the devices, instruct the participant to move those things out of the way. Additionally, the instructor should normally be able to control a participant, who looks likely to flip upside down, by holding the belay line tight and instructing them to move their feet further down the wall into the 'L' position.

If there is a need for a rescue, follow the procedures below:

Participant upside down

- Hold the belay line tight.
- Calm and reassure the participant. Tell them that if they let go of their abseil line they will not move further down the wall because you have a secure hold of them.
- Instruct the participant to put one leg back under the ropes so they have both feet below them again.
- Ask them to take hold of their abseil line again (if they have let go), to get back in the 'L' position and continue down the wall as normal.
- Once they are on the ground, check that they are 'OK' and whether any first aid is required.

Item caught in the figure 8 device

- Hold the belay line tight.
- Calm and reassure the participant. Tell them that if they let go of their abseil line they will not move further down the wall because you have a secure hold of them.
- Ask the participant if they can untangle themselves and if not, follow the instructions below:
- Tie off the participant's belay line by pulling a bight of the belay rope through the carabiner that is connected to the belay device (ATC), and securing the rope with three half hitches. Ensure you have a 30cm tail (bight of rope) once the half hitches have been tied.
- Release the three half hitches that are on the abseil line and slowly feed the released rope through the Munter/Italian hitch until the figure 8 descender is loose and the hair or other obstructing item is clear.
- Remove the slack in the abseil line and ask the participant to place their hand, if possible, back into the 'lock off' position. Ensure that the rope is loaded correctly to avoid a jolt when the participant begins to abseil again.
- Retie the three half hitches on the abseil rope.
- Slowly release the three half hitches on the belay line, ensuring that you hold the belay line correctly to avoid any further jolting.
- Continue to belay the participant down the abseil wall as normal.
- Once they are on the ground, check that they are 'OK' and whether any first aid is required.
- After the activity, ensure that the instructor who performed the rescue completes the Abseil Rescue Form (located in green instructor folders or in the office).
- If necessary, complete an Incident, Accident and Near Miss Report Form (located in green instructor folders or in the office).

6 Debriefing

As Activity Instructors we assist participants in understanding and realizing what they have achieved and how it can apply in everyday life. A debrief works best if the participants feel they can contribute most of the input and ideas themselves.

- Address aims (see page one) and discuss the participants' successes and challenges.
- Discuss overcoming their fear of heights, their personal choices, and respect for other people's choices as to limits, strengths and weaknesses.
- What was their perception of abseiling at the start ("where were you in your comfort zone")? What are their feelings towards it now ("has your comfort zone expanded")?
- Discuss the teamwork and trust elements of the activity and how it can apply in everyday life.

7 Packing Up

On site

- Participants should fully loosen the harnesses and return them to where they came from along with the helmets.
- During the pack up at the top of the Abseil Tower, ensure that everybody remains safely attached.
- All abseil ropes must be pulled to the top of the tower, untied and coiled before being placed in the transport bag/box.
- All hardware must be accounted for and placed in transport bag/box along with the ropes.

Final pack up at Equipment Shed

- Any issues/problems with any equipment should be noted on the tally sheet and explained as soon as possible to the Program Coordinator.
- Hang ropes and harnesses, and place helmets and hardware on the bench, in the Equipment Shed.
- If necessary, an Incident, Accident and Near Miss Report Form must be filled out (located in the green instructor's folder or in the office). Any completed forms must be handed to the Program Coordinator at the earliest convenience.
- If a rescue has been performed, the Abseil Rescue Form must be filled out by the instructor who performed the rescue (located in the green instructor's folder or in the office). These forms are to be handed to the Program Coordinator at the earliest convenience.