



This document should be read in conjunction with PGL's Generic Instructing Standards and all relevant ACOPs.

### Risk Profile

The following risks have been identified through PGL's risk assessment process:

#### All Ground up

- a. Injury due to participating in an active, physical based activity,
- b. Extreme Weather
- c. Equipment Failure
- d. Injury due to incorrect set-up and operation/ belaying
- e. Danger from falling objects
- f. Collision/entanglement with elements / structures / equipment/ people
- g. Entrapment of hair, fingers, loose clothing, etc. in element or operating structure
- h. Splinter injury from pole.
- i. Injury cables & cable clamps
- j. Tear/ de-gloving injuries from rings and other jewellery
- k. Slips/Trips/low to ground falls
- l. Danger of ground fall whilst in ascent or being lowered
- m. Rope burn injury

#### Specific additions for Crate Stack

- n. Entrapment injury to fingers/hands/feet between crates.
- o. Impact injury due to crates scattering on collapse.
- p. Injury to instructor when pushing crate stack over

#### Specific additions for Trapeze

- q. Injury due to shock loading of body on grabbing trapeze bar

Implementation of the following operating procedures reduces the residual risk to a level as low as reasonably practicable given the intended purpose of the activity.

### Deployment Requirements

**Instructor Qualifications:** Centre based training by Approved Ropes Trainer and assessment by PGL Approved Assessor in PGL Ground up Level 1 or 2

**Instructor/Participant ratio:** 1:15

**Total group size:** 15

**Active participation:** GUI Level 1 – 1:1 (instructor belay) or 1:4 (one Participant belaying, one back-up belayer, one rope tidier and one climber)  
Max one active rope at a time.

GUI Level 2 – 1:1 (instructor belay) or 1:12 (Participant belaying 3 belayers 3 back up belayers, 3 rope tidiers and 3 climber) Max three Simultaneous active ropes.



## Control Measures

### 1. Equipment Requirements:

#### **Per belay point**

- 7 x Triplock Karabiners (minimum of 3 steel)
- 1 x Camp Matik
- 1 x Dynamic rope
- 1 x belay bucket
- Belay bags if no ground anchors

#### **Per Vertical Challenge & climbing base (tower or indoor wall)**

- 1 x Wild country Ropeman
- 1 x HMS karabiner
- 1 x rescue pulley

### 2. Participant & Instructor equipment requirements:

- 1 x Helmet
- 1 x Sit Harness
- If off ground:
  - 1 x Chest Harness
  - 1 x Combi sling
  - 1 x HMS Karabiner

### 3. Specific Clothing Requirements for Instructors & Participants

- Trousers or long shorts
- Flat soled shoes or boots unable to slip off
- Long hair tied back
- Jewellery removed where possible, or made safe.
- Where a chest harness is worn, a top or t-shirt must be worn that covers the individuals shoulders
- Loose items removed from pockets
- Any items constituting a risk of entanglement removed

### 4. Activity: Preparation

- Instructor to carry out a routine visual inspection of the element and activity area, checking the integrity of the whole element as per 'Daily rope inspection Checks.doc'.
- If built in a wooded area, check for fallen branches or unsafe trees.
- If the Instructor has any concerns about the integrity and safe use of the element and activity area, then they should raise this with the appropriate Duty Senior, prior to any activity taking place.
- On all days when the activity takes place, a record of the first routine inspection of the day should be logged for future reference.
- For outdoor elements, check the expected weather conditions, focusing on expected wind strength. Elements must not be used in wind conditions above Force 5, or those agreed with the Technical advisor or during any storm that breaches the 30/30 rule.
- All set-ups must be rigged in accordance with PGL/MIC Technical Advisor approved methods/policy.
- If ladders are used they must be secured in line with PGL Ladder policy



## Normal Operating Procedure (Including Risk Assessment) Ground Up

- h. Instructor to visually & physically check the integrity and setup of all PPE to be used, including twists in any straps and amount of PPE for the group.
- i. Instructors should prepare themselves for the session ahead by ensuring they are aware of relevant group information, and have a broad session plan which can be finalised when meeting the group.
- j. Instructors may only supervise in line with the ratio for the element they are instructing and their assessed qualification level, either MLTUK MIA approved PGL Ground up Level 1 or 2.
- k. If the element did not form part of the instructors' external assessment, they must have received onsite training and assessment delivered by Ropes Supervisor or Trainer who is also qualified as a GUI Level 2.
- l. All elements must have the height of 2.8 metres (or as specified by the Technical Advisor) above ground clearly and permanently marked on their structures.
- m. The instructor must ensure they know whether the session they are running is intended to be Participant or Instructor belayed as requested by the party leader.
- n. Development and adaptation of the session should be appropriate to the group's wants and needs and must be in line with the approved safe practises of the activity.

### **5. Activity: Instruction**

- a. Participant must receive a safety briefing as outlined in the ACOP .
- b. If other activities are taking place nearby that put Participant at risk from falling objects, then instruction in the correct fitting of helmets should take place first, in a safe area, before approaching the structure and continuing the brief.
- c. The correct fitting of Helmets and harnesses should be both demonstrated and explained to Participant.
- d. Where possible the instructor should seek ways to increase the Participant' awareness of risk and to involve them in its identification and management.
- e. A demonstration of the approved belay or operation system and method should be given to all Participant before they participate in the activity.
- f. Elements/ bases may only be used under supervision of PGL staff.
- g. An instructor must check all of the Participant's PPE before attaching them to the safety rope once satisfied it is fitted and adjusted for optimum safety.
- h. Participant must face the instructor for a last check of equipment and to allow the instructor to carry out final departure checks on the safety chain. The safety rope must be tightened before climbing commences.
- i. Final Departure checks must be carried out by the qualified session instructor prior to the Participant being given the 'OK' to commence the activity. 'FDC' s are detailed in the 'Off Ground FDC's ACOP.
- j. Whilst supervising and instructing, instructors must be aware of their own positioning and sight lines, ensuring they can see all the Participant they are directly supervising at all times.
- k. Instructors must be in a position where they can physically intervene on any safety issues immediately if required.
- l. Instructors should remain vigilant at all times and make ongoing dynamic risk assessments of the environment, people and the activity.
- m. The instructor should ensure that maximum inclusion is aimed for by involving Participant in the activity. This must be balanced against maintaining the safety of Participant. .
- n. The belayers must be attached to the ground anchors using the agreed PGL/MIC Technical Advisor system.
- o. For sessions where Participant will be belaying, a demonstration of correct belaying technique with a Camp Matik must be shown. Participant must then practise under the supervision of the instructor, without a Participant climbing off the ground.



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- p. Instructors must only allow Participant to belay a climber if they have proven their competence at belaying. Competent belaying is measured as: completing 4 correct and safe belay cycles without the need for intervention or prompting from the instructor.
- q. If a Participant requires more training in belaying then this must be given prior to them belaying anyone. The importance of belayer/climber communication should be emphasised and encouraged throughout.
- r. Only one climbing Participant per belay point is allowed.
- s. Ground up belay systems must be pre-stretched at the start of each Participant's climbing cycle just before the first Participant climbs above the 2.8 metre mark.
- t. The stopping knot must remain in the rope for the entire time a Participant is climbing and lowering until it reaches the matik device during the lower
- u. Instructors must be in a position where they could assist with belaying at very short notice if required.
- v. Instructor must ensure that the safety ropes do not become snagged whilst the Participant are climbing up to the element.
- w. Climbing Participant should not pull on their own ropes as this can make it hard for belayers to ensure their rope remains tight
- x. For sessions where Participant will be belaying, it must be enforced through the safety brief and throughout the session that the instructor controls every lower and Participant may not lower.
- y. When awaiting lowering, or if the instructor cannot fully supervise the belayers, the climbing Participant's rope and belay device must be tied off using the PGL/MIC Technical Advisor approved method.
- z. The instructor must ensure the Participant 'sit down off the element' in a safe manner which maintains the belay rope in the correct position. This is particularly important on elements with open sides where it is possible to fall to the "wrong" side and twist the rope through the element.
- aa. The instructor must watch the participant throughout the lower to ensure they use the correct position at all times and maintain a safe distance from the elements or wall to ensure they do not become entangled, or hooked up by their limbs, clothing or helmet.
- bb. When lowering somebody to the ground the instructor **MUST** use the approved method. Under no circumstances should a dynamic lower be used.
- cc. Any games or challenges set on the element must be in line with PGL/MIC Technical Advisor approved methods/policy
- dd. Challenges involving timing or encouraging any kind of racing, must be discouraged - speed increases the likelihood of mistakes in the safety chain and safety frameworkk.

### **Multiple ropes supervision**

- ee. On Multiple ropes elements all belayers must be supervised one to one until the climbers feet are at a height of 2.8 metres off the ground and then tied off with a stopping knot. They must wait here whilst each rope is belayed on a one to one supervised ratio until all other climbers reach the 2.8m height. Once all climbers have arrived at the 2.8 m mark and only if the Instructor is happy with the competence of the belayers, may multiple ropes be supervised simultaneously.
- ff. When supervising multiple ropes with novice/inexperienced belayers, Instructors must begin supervising first one rope, progress to two and eventually progress to three, if belayers' competence allows for this to happen safely.
- gg. When supervising multiple ropes, instructors must ensure Participant stand in a position to avoid entanglement in each other, the element and all safety ropes.
- hh. Whilst supervising multiple ropes, instructors must be aware of their own positioning and sight lines, ensuring they can see all the belayers they are supervising at all times. If one belayer requires extra help which may mean the instructor does not have full vision of other belayers, the stop climbing command must be used and the other ropes tied off before assistance is given.



**Element specifics:**

**GU1**

**Climbing Wall**

- a. Some walls can be relatively quick to climb, the stop procedure should be reinforced before Participants leave the ground and the no racing rule is very important for this element.
- b. Bouldering may be used as an introduction or development. The techniques should be instructed, including spotting technique. A low maximum height must be set, no one to boulder without spotter.
- c. Reaching games and exercises should be used when Participants are just a few metres off the ground. They will have very positive outcome on their climbing technique, before they become affected by the exposure of additional height.
- d. Instructors must be vigilant during lowering to ensure Participant do not hook their clothing or helmet on holds or other obstructions on the wall.

**Trapeze/Leap of Faith**

- a. Instructor or Participant belayed, Participant can be also be used as back up belayer to increase group participation.
- b. The trapeze bar distance from the jump point should be set and secured before the participant jumps.
- c. With all belayers, the instructor must ensure that each participant is belayed until their feet are 2.8 m off the floor and then tied off with a stopping knot.
- d. Participants should be encouraged to attempt to catch the bar with both hands, to reduce muscle strain.
- e. Instructors should be aware of Participants who wish to descend, as opposed to jumping/swinging from the pole or platform. In many cases a Participant jumping from the ladder will swing back into the ladder, in this case it may be more appropriate for the Participant to down climb.
- f. Participant should not be encouraged to down climb from height, if the Participant slips, the surprise could be frightening. Participant should therefore be encouraged to swing from the pole; however instructors should be aware of the options and reasons for these.
- g. If the Participant leaves the pole before the top, they must be warned if they will swing back into the pole, if necessary they should use their feet to fend off from the pole.
- h. Any "rescues" performed by the instructor must be carried out in accordance with their MLTUK MIA approved PGL Ground up Level 1 qualification.

**Traverse**

- a. The instructor should ensure the belayer and fishers do not step on the ground wire or straddle it and do remain in line with the participant.
- b. With all belayers, the instructor must ensure that each Participant is belayed until their feet are 2.8 m off the floor and then tied off with a stopping knot.
- c. The instructor must ensure that the belayer and back up belayers sideways movement does not negatively affect the security of the belaying.
- d. The tension of the belayed rope should be set when the Participant reaches the top of each vertical stage and is ready to traverse. The belay device should be kept in the locked off position whilst the



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Participant traverses. No rope should be taken in as they traverse, as this prevents the need to pay out slack at the end of the traverse.

- e. Belayers should remain directly opposite climber throughout the belaying of the activity.

### Vertical Challenge

- a. Instructors should be aware of an increased entrapment risk. In particular the cargo net and lowering past this should be carefully supervised.
- b. Some vertical challenges can be relatively quick to climb, the stop procedure should be reinforced before participant leaves the ground. The no racing rule is very important for this element.
- c) The element must not be deliberately swung whilst Participant are on or near the element.

### GU2

#### All Aboard

- a. Where belay points are situated apart, each rope must be supervised separately with one Participant ascending at a time. Each belay point must be fully locked off before the instructor moves on to supervise the next belayer.
- b. Instructors must maintain awareness and regular visual contact of all tied off belay devices and ropes whilst supervising throughout the session, including whilst lowering.
- c. For All Aboard where multiple participants climb at the same time the safety briefing must include how to climb the pole and safely help each other.
- d. There is a higher likelihood of safety rope entanglement on simultaneous ascents. To avoid this, each climber should climb directly beneath their own sheer reduction block. Before anyone leans off at the top the instructor should ensure participants are not tangled around each other.
- e. What to do when reaching the final platform must be discussed before climbers leave the ground.

#### Crate Stack

- a. The instructor must ensure that local systems for securing crates are used (bungee, clips etc) throughout the climb and that the waiting area is clearly defined to reduce the likelihood of spectators being hit by falling crates.
- b. At the end of a climb, the instructor must ensure all Participant are in a safe area, the climbers can then be instructed to lean back and may knock over the stack, trying to direct it into an appropriate space.
- c. If the Participant are unable to knock the crate stack over, then the instructor may use the "pushing pole" to knock over the crate stack
- d. The instructor must remain aware of all crates and must not lower a Participant onto a crate.

#### Jacobs Ladder

- a. Many Jacobs have side wire stays between logs; these should not be used or pulled upon by the climbers.
- b. Before climbing, participants must understand how to safely help each other whilst climbing.



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- c. The Jacobs ladder must not be deliberately swung whilst Participant are on or near the element.
- d. When lowering off, Participant ropes should remain on their side of the Jacobs ladder.

### **Centipede**

- a. Orientation should be considered when attaching the bottom section of the centipede to make the climb as easy as possible.
- b. It may be suitable to get another member of the group to stabilise the pole at the beginning of each ascent
- c. Guests must be instructed not to use the wires between sections to help them climb.
- d. During lowering participants must be told to fend off any swinging sections of the centipede with their feet.

### **8. Problem solving and rescues**

Participant may become entrapped within elements either by limbs, clothing or helmet, or they may become emotionally frozen

- a. Problems should be solved with the least complicated solution/rescue and in the way most sympathetic to the 'victim'
- b. If "rescues" are needed which are outside of the instructors assessed qualification level, a supervisor's assistance must be called for using either a radio, via other staff, an accompanying adult or a minimum of two Participants.
- c. Emotionally Frozen Participants should be encouraged to weight the rope with soft skills at the same time the Instructors should take in the rope as tight as possible to give the Participant a sense of support from the rope.
- d. If a Participant becomes physically entrapped, but is not in immediate danger then the Instructor should tighten the rope as much as possible and then use the Ropeman rescue, alternatively they could send for a supervisor.
- e. If a supervisor has been called they will need to execute either a Ropeman rescue, a parallel rope rescue or a snatch rescue depending on the circumstances.
- f. If a participant becomes physically entrapped in a way that constricts their breathing – i.e. suspended by their helmet or clothing, then the Instructor must send somebody to raise the alarm and then they must try the following solutions (in order of simplicity):
  - i. Ask Participant to get their weight back on their feet and hands to take the weight off their neck
  - ii. If it is a helmet strangulation, ask them to undo the buckle on the helmet.
  - iii. Use the Ropeman rescue

### **Activity: Conclusion**

- a. Positive active reviewing should be used to revisit aims and objectives and allow Participant to share/reflect on achievements
- b. The activity base must be left so that unauthorised people cannot access the element.
- c. Any tracer cords must be rethreaded correctly and secured before leaving the base.
- d. All harnesses should be left extended to the limit.
- e. Any dirty equipment must be washed in clean water.



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- f. Any activity base or equipment faults must be communicated immediately to the appropriate senior/s and where items / bases should not be used, the instructor must take initial steps to ensure this does not happen.
  - g. All incidents, near misses and rescues should be recorded in the centre log book
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### FOR CENTRE USE ONLY:

The risk assessment procedure has been completed by:

DATE	PRINT NAME	SIGNATURE