

High Ropes Course Risk Assessment

Activity Ropes Course Activity Session

What are the hazards?

- Unauthorized Use
- Vandalism
- Slips, Trips and Falls
- Falls from height
- Items falling from height
- Adverse weather conditions
- Human error, inappropriate use of equipment.
- Ladders slipping
- Slipping on foot wires
- Swinging into trees

Who is at risk?

- Staff, participants and members of the public.

What are the risks?	Existing safety measures/controls	Likelihood	Risk Rating
Slips, trips and falls	<ul style="list-style-type: none"> • Soft ground covering (wood chips). • Safety briefings including no running and no use of equipment without an instructor • Seating areas for non-participants • Good group control from instructors and group leaders • Helmets provided and must be worn within the compound unless in designated safe area. • Participant will be stopped from using/playing on the low ropes element during a high ropes session • All instructors are first aid qualified 	LOW	LOW
Pressure sores from continual harness use. Exhaustion from accessing.	<ul style="list-style-type: none"> • All instructors are trained in accessing and take it in turns to access elements • Equipment regularly checked (visual daily and a detailed regular inspection) • Instructors able to use their own harnesses (providing they are checked and meet the same standards as Avon Tyrrell's harnesses.) • Minimum of two instructors present when accessing. • There will always be an instructor that is rescue trained working on site while high ropes/accessing is taking place • Accessing will only be done in the full body access harness 	LOW	LOW

	<ul style="list-style-type: none"> The Petzl podium has been provided for extra comfort when inspecting wires 		
Continued use of harness resulting in "suspension Trauma"	<ul style="list-style-type: none"> Accessing must only be carried out with 2 staff in visual contact. Petzl access harnesses provided which reduce the risk of "suspension Trauma" Petzl Podium access seat is provided for relieving pressure during prolonged inspections. 	LOW	LOW
Falling from height from faulty equipment and unauthorized use	<ul style="list-style-type: none"> Compound locked when not in use Warning signs placed around the fences Adequate fences surround the ropes compound All ladders locked when not in use All equipment packed away and stored in an alarmed storage shed over night All elements and PPE checked as per maintenance schedule Annual inspection by external body Equipment replaced as necessary – either through checks or through manufacturers guidelines. Signage on gates discouraging unauthorised access 	LOW	LOW
Participants falling due to the instructor belaying multiple participants	<ul style="list-style-type: none"> All lowering off is to be under full control of the instructor. Thorough instructor briefs given to participants on belaying. Instructor to have discretion as to whether participants are competent to carry out belaying duties. Knots tied as per training in inactive end of rope as stated below Unless Instructor Is tailing the rope For groups with additional needs / limited ability to follow instructions additional staff may be required Jacobs's ladder: 1 instructor to manage 1 side (max 2 ropes) with Knots tied regularly bell pull from participants. High all aboard: 1 instructor can manage 4 ropes (participants belaying) Instructor to manage one moving participant at a time The instructor to tie off participants at the top of the activity and brief the group to leave the tying off knot alone and that the lower off will be done by the instructor Play pen: 1 instructor to manage 1 side (max 2 ropes) bell pull from participants Knots tied regularly 	LOW	LOW

	<ul style="list-style-type: none"> • Crate Stack:1 instructor can manage 2 ropes (Bell Pull from participants) • Knots tied regularly 		
Items falling from height	<ul style="list-style-type: none"> • Helmets worn at all times unless in designated safe zone • Regular dead wooding and annual tree inspection from an arboroculturist • Participants asked to remove loose items from their pockets 	LOW	LOW
Adverse weather conditions	<ul style="list-style-type: none"> • All ropes course activity cancelled if winds gust force 6 or higher or when top wire rope pulls tight as the trees move with the wind • There is an anemometer available in the instructor office to check this • In the event of thunder and lightning storms a 20 minute rule applies • Groups recommended to wear weather appropriate clothing. Keeping hydrated. • Elements have sacrificial wires ensure that in strong winds do not compromises the safety of the belay cables. 	LOW	LOW
Training – inexperienced staff accessing. Inexperienced staff running sessions.	<ul style="list-style-type: none"> • When learning to access, inexperienced staff will be closely and directly supervised by the qualified instructor- using belay as appropriate. • During sessions where the instructor is gaining experience, they will be supervised by a qualified instructor who will not be attached to another systems, therefore able to help if required. • Before accessing an instructor will get their harness checked by another qualified instructor • Shadow, assist, lead process in place before instructor is signed off as competent by CI/other appropriate staff to deliver independently. 	LOW	LOW
Human error by instructor – misuse of equipment.	<ul style="list-style-type: none"> • All staff trained and assessed in the proper use of PPE, including belay devices etc. And site specific processes. • All staff monitored through formal observation and walkabouts. • Refresher training delivered annually and if any new equipment/processes are introduced • Techniques in place to reduce the risk of instructor error such as slow controlled descents only, no acrobatics such as inversion during descent. 	LOW	LOW
Incorrect use of ladders resulting slipping & falls	<ul style="list-style-type: none"> • All staff trained in the safe use of ladders • All ladders are suitable for the tasks 	LOW	LOW

from height or ladders falling on people.	<ul style="list-style-type: none"> Ladders will be secured to poles or trees by tying the top rung of the ladder to the pole or tree. The ladder must be footed by another person when the instructor is tying the ladder to the pole or tree When accessing the element the instructor must attach in to a safety as soon as possible. The ladders must be footed when participants use the ladder in addition to being secured at the top of the ladder 		
Inversions compromising the security of the harness	<ul style="list-style-type: none"> On all high activities, chest harnesses or full body harnesses are used which prevent unexpected inversions The chest harness is connected to the waist harness via the main belay rope. This is tied by the instructor and checked prior to each ascent All harness buckles are also checked as they are put on and prior to each ascent. All lowering off must be while participant is upright. 	LOW	LOW
Human error – groups not listening to briefings and taking in vital information.	<ul style="list-style-type: none"> Full co-operation from group leaders in group control and discipline Instructors are authorized to stop a session if participants are acting in a dangerous or irresponsible manner. 	LOW	LOW
Limited understanding due to additional support needs	<ul style="list-style-type: none"> Advanced notification and high level supervision (provided by the groups own staff) required for all groups with substantial support needs For less substantial support needs, the level of supervision should be agreed before the session commences and monitored throughout. Option for groups to hire additional instructors if deemed beneficial for lower ratio working. 	LOW	LOW
Rope burns from belaying	<ul style="list-style-type: none"> Gri Gri's are generally used if participants are belaying Participants supervised by instructors Participants briefed they may only use their own rope (above the figure of 8 tying them in) to provide physical support/balance. 	LOW	LOW
Descents	<ul style="list-style-type: none"> Ensure the decent path is clear of ladders and the elements themselves by moving them out of the way or getting the participant to push themselves around/away from fixed elements. 	LOW	LOW

	<ul style="list-style-type: none"> • Lower off will be at a controlled speed and managed by the instructor. The participant must not be upside down. • Lowering off only one participant at a time per instructor • The participants weight must be fully on the rope before lowering off 		
Cuts from wire splinters in the wire rope (Jacobs ladder and play pen)	<ul style="list-style-type: none"> • Participants briefed not to touch the wire ropes • Wire ropes inspected thoroughly regularly and damage reported 	LOW	LOW
Participants being pulled off team apparatus by team mates/falling off elements at height resulting in collisions (all elements)	<ul style="list-style-type: none"> • Participants briefed on how to safely use the activities based on training provided • Where appropriate a “let go” on command is used when the team becomes unstable • Participants briefed to fend away from the apparatus • Helmets to be worn • All ropes kept tight 	LOW	LOW
Ropes entangling on team activities and multi vine	<ul style="list-style-type: none"> • Elements are set up in a way where people fall away from each other • Good briefing highlighting the safe method of use for the elements are provided • Ropes kept tight 	LOW	LOW
Slipping from wires and beams (all elements)	<ul style="list-style-type: none"> • Correct traversing method explained and coached (wires running widthways across the sole of the foot, rather than lengthways) • Correct belaying • Good instructor awareness 	LOW	LOW
Swinging into trees (all elements)	<ul style="list-style-type: none"> • All elements are designed so the SRB’s move to the safest/lower off point 	LOW	LOW
Swinging back into element(s) when stepping of the apparatus to be lowered (catwalk, multi-vine, Incline logs, Play pen, High all aboard, Jacobs ladder)	<ul style="list-style-type: none"> • Participants asked to step off slowly, where possible after the maximum amount of slack is taken from the system by the belayer. • Participants are asked to fend of the element if appropriate during their descent using their hands and feet to make a more comfortable lower off • If possible, on the catwalk, participants are asked to sit down on the log and slide off or climbing down the tree until their waist is level with the beam before putting their weight on the rope • If possible, on the multi-vine participants are asked to climb down the tree until their head is level with the wire. The 	LOW	LOW

	<p>instructor is to make themselves stable and to remain stationary during the decent as much as possible.</p> <ul style="list-style-type: none"> On the Jacobs ladder and play pen, the apparatus can be pulled away from the participant by another participant to make a clear and easy lower off 		
Crates from the crate stack falling onto participants as the tower falls over	<ul style="list-style-type: none"> Platform angled so the straight edges are facing away from the belayers Platform angle is slightly bias towards falling away from the belayers Good instructor briefing Participants passing crates up do so with careful supervision and the number of people are limited to a few as possible Participant not to stand in the area that the tower has a tendency to fall in. Typically this is south of the tower but may change due to tower design 	LOW	LOW
Crates falling onto participants because they were dropped by the people building the tower	<ul style="list-style-type: none"> A rope and a hook is available for the team climbing to lift the crates up instead of having them thrown The "slot and lift" technique can be taught 	LOW	LOW
Becoming entangled on the play pen	<ul style="list-style-type: none"> Good instructor briefing Good instructor awareness 	LOW	LOW
Falling when close to the ground on the Incline Log	<ul style="list-style-type: none"> The participants will be spotted by other participants For The First Section (Until Spotting Would Be Unproductive) Instructor will keep rope tight 	LOW	LOW

Reference to other manuals assessments:

- AAIAC the UK ropes course guide
- ERCA operational manual
- [UK Youth Health and Safety policy](#)

When was the assessment reviewed and by whom?

- November 2018 Chief Instructor

Date of next review and to be done by whom?

- November 2019 Chief Instructor