

Zip Wire Risk Assessment

Activity

- High Ropes Activity Session

What are the hazard (in addition to general RA)?

- Working at height
- Trips, slips and falls.
- Proximity to water
- Participants at height
- Equipment failure
- Unauthorised use
- Human Error
- Vehicle related injuries
- Branches etc. falling.

Who is at risk?

- Staff, participants, and members of the public

What are the risks?	Existing Safety measure/control	Likelihood	Risk rating
Instructor accessing, Clients at height. Human error, Unauthorised use and vandalism all leading to falls from height, equipment failure etc. resulting in physical injuries, fractures, death	<ul style="list-style-type: none"> - Annual staff updates. - Annual inspection by professional outside company. - All equipment fitted to individual participants and checked prior to ascent including harnesses and helmets. - Safety systems in use for all aspects of the zip wire experience from ascent to descent - Instructors will get their PPE checked by another qualified instructor before accessing. - Instructor safety is via Cabloc, cows tails and Grillon - Two instructors on all sessions with the instructor running the platform fully trained and assessed in rescue techniques. - First aid kit and radio at the activity base. - All equipment suited to the purpose. - All equipment removed or secured when the activity base is not in use. - Gate to Tower locked when not in use. - Staff trained internally on how to access the wire safely 		
Proximity to water - drowning and Weils disease	<ul style="list-style-type: none"> - Overwater rescues are highly unlikely, but DIs are trained to perform these. - Life rings and warning signs around the edge of the lake 		

	<ul style="list-style-type: none"> - Group leaders must be present on every session, and they must remain in charge of group control and discipline. - Group leaders asked to help supervise the participants as they walk around the lake. - Groups given a thorough briefing prior to the activity and possible dangers pointed out including proximity to water. - Hand washing encouraged at the end of the session. 		
Entrapment in the ropes or hitting the landing platform at speed resulting in impact injuries	<ul style="list-style-type: none"> - Before participants are released from tower a shout of “clear” must be made to the bottom instructor who is responsible for checking that the brakes are correctly set. Only once this command has been reciprocated is the person able to leave the pole and descend the zip wire. - All instructors are assessed and are familiar with emergency procedures. - Relevant lanyards are used depending on height of the participants. 		
Rope Burn	<ul style="list-style-type: none"> - Gloves to be available for instructors accessing/inspecting - Instructor control and awareness. - Only instructors are to be involved in the braking system - Participants are never in control of their ropes, this is always done by the instructors. 		

Reviewed: April 2023 by Head of Outdoor Learning Engagement and Delivery

Approved by: Assistant Director of Outdoor Learning

Next review date: April 2024

General Risk Assessment for Off Ground activities

Activity: Climbing (Including Auto Belays), Abseiling, High Ropes (including tree climbing), Zip Wire, Tree Top Trail & Bouldering

What are the hazards?

- Participants at height
- Uneven ground
- Unauthorised use, malicious damage, and vandalism
- Accessing and setting up, de-rigging
- Items falling from height on to participants / instructors.
- Equipment failure
- Adverse weather including lightning / high winds and storms.
- Course / element failure

Who is at risk? Staff, participants, and members of the public.

What are the risks?	Existing safety measures/controls	Likelihood (RAG)	Risk rating (RAG)
Physical injuries, fractures, or death from falls from height.	<ul style="list-style-type: none"> - All equipment is checked before use and regular inspections carried out by competent instructors. - Equipment is monitored and replaced according to the manufacturer's recommendations. - Any equipment that is questionable is immediately taken out of action, put into the quarantine area and has a do not use label attached. - Off Ground activities are checked before use for malicious damage and vandalism/storm damage - Regular session monitoring by senior staff to ensure the SOPs are being adhered to. - Anyone within the activity area must be wearing a helmet except when they are under a shelter or in a clearly defined safe zone (see auto belay section for exception). - Suitable fences and lockable gates around the perimeter compound or the activity is left at height so it cannot be accessed by members of the public. - Signs warning against unauthorised access displayed. - The equipment shed is locked and alarmed at the end of the day. - All equipment is stored in the ropes shed at the 		

	<p>end of each day.</p> <ul style="list-style-type: none"> - All instructors will have been trained, assessed, regularly monitored, and deemed competent to run sessions and will operate as per their training and SOP's. - All activities staff are first aid trained. - Only instructors can lower participants to the ground. - If the instructor is not directly tailing for the duration of the climb, back up knots must be tied in the dead rope. - Instructors should be aware of the continuous need to utilise C.L.A.P on all their sessions. - Whilst novice instructors are learning they require direct supervision from an experienced member of staff if they are accessing, setting systems up or running sessions. 		
<p>Items falling from height causing impact injuries</p>	<ul style="list-style-type: none"> - Anyone within the activity area must be wearing a helmet except when they are under a shelter, in a clearly defined safe zone or taking part in an auto belay session. - Participants are asked to remove items from their pockets. - Dead wooding is carried out on an annual basis in accordance with the tree reports or as necessary. - There are regular operational inspections carried out by trained and competent staff. - Instructors set up and sign the Pre use check document in the HR shed to say they have checked the activity and surrounding area is safe to use for the day. 		
<p>Adverse weather conditions causing injury / illness such as lightning causing electrocution, wind and rain causing hypothermia and very hot days causing hyperthermia.</p>	<ul style="list-style-type: none"> - Sessions are cancelled winds over 25mph (There is an anemometer available to check the wind strength located in the Activities office and a weather station on top of the main house) - Sessions are stopped in lightning storms for 30 minutes after the last strike. - Guests are recommended to wear appropriate clothing, carry water, and sun cream. - There are shelters available for both rain and sun. - If the weather conditions get too much for groups/individuals, the sessions can be cancelled/postponed. - Water is available free of charge from drinking taps around the grounds. - Instructors can stop a session if they feel the weather conditions are unsuitable and safety might be compromised. 		

	<ul style="list-style-type: none"> - Instructors are trained to recognise signs of hypothermia/hyperthermia and what actions to take. 		
Equipment failure due to poor fitting, misuse, or damage.	<ul style="list-style-type: none"> - Instructors undergo training and assessment in off ground activities which covers correct fitting of PPE. - Staff are monitored with observations and feedback is recorded and passed onto them. - PPE is checked along with the elements as part of the daily pre use checks. - All PPE is checked for correct fitting and size prior to leaving the kit up area. All PPE is checked for correct fitting and size prior to leaving the kit up area. - A complete system check takes place prior to all ascents/descents. - PPE is on a regular inspection regime in line with LOLER by a competent person 		
Entrapment of fingers, clothes, or hair.	<ul style="list-style-type: none"> - As part of the kit up process, participants are advised to remove jewellery, tie long hair back and tuck any loose clothing in. - Participants are instructed to keep their hands at least one fist away from the belay device. 		
Unauthorised use of the activities	<ul style="list-style-type: none"> - The climbing tower and HR compound are locked between sessions. - Tree Top trail entry net is raised and secured. - Signs warning against unauthorised access displayed. - Auto belays are retracted at the end of each day 		
Pressure sores from continual harness use and / or exhaustion from accessing.	<ul style="list-style-type: none"> - Only to be conducted by instructors who are trained and assessed. - Equipment regularly checked (visual daily and a detailed regular inspection) - 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. - The Petzl podium seat is available for extra comfort when inspecting wires 		
Inversions compromising the security of the harness	<ul style="list-style-type: none"> - On high activities where inversion is likely, a chest harness is used. - 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 lowering off must be while participant is upright. 		

Rope burns from belaying	<ul style="list-style-type: none"> - Petzl Rigs are used if participants are belaying. - Only the instructor can lower someone down from height. - If rope is wet or belayer struggling to keep control of lower, then the rope can be redirected through another karabiner to increase the friction. 		
Human error - Participants	<ul style="list-style-type: none"> - Full co-operation from group leaders in group control and discipline - Ongoing assessment of the group's physical and mental ability during the session by instructors and session content adapted if required 		
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. 		
Human error by instructor – misuse of equipment.	<ul style="list-style-type: none"> - All staff are trained and assessed in the proper use of PPE 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 are in place to reduce the risk of instructor error such as slow controlled descents only, no acrobatics such as inversion during descent. 		

Reference to other manuals assessments: UK Youth Health and Safety policy

Reviewed: April 2023 by Head of Outdoor Learning Engagement and Delivery

Approved by: Assistant Director of Outdoor Learning

Next review date: April 2024