



**2024 Off Ground Activities  
Risk Assessments**

**UKY** | **AVON  
TYRRELL**

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# 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	Risk Rating
Physical injuries, fractures, or death from falls from height.	<ul style="list-style-type: none"> <li>• All equipment is checked before use and regular inspections carried out by competent instructors.</li> <li>• Equipment is monitored and replaced according to the manufacturer’s recommendations.</li> <li>• Any equipment that is questionable is immediately taken out of action, put into the quarantine area and has a do not use label attached.</li> <li>• Off Ground activities are checked before use for malicious damage and vandalism/storm damage</li> <li>• Regular session monitoring by senior staff to ensure the SOPs are being adhered to.</li> <li>• 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).</li> <li>• 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.</li> <li>• Signs warning against unauthorised access displayed.</li> <li>• The equipment shed is locked and alarmed at the end of the day.</li> <li>• All equipment is stored in the ropes shed at the end of each day.</li> <li>• 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.</li> <li>• All activities staff are first aid trained.</li> <li>• Only instructors can lower participants to the ground.</li> <li>• If the instructor is not directly tailing for the duration of the climb, back up knots must be tied in the dead rope.</li> </ul>		

	<ul style="list-style-type: none"> <li>• Instructors should be aware of the continuous need to utilise C.L.A.P on all their sessions.</li> <li>• 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.</li> </ul>		
Items falling from height causing impact injuries	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Participants are asked to remove items from their pockets.</li> <li>• Dead wooding is carried out on an annual basis in accordance with the tree reports or as necessary.</li> <li>• There are regular operational inspections carried out by trained and competent staff.</li> <li>• 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.</li> </ul>		
Adverse weather conditions causing injury / illness such as lightning causing electrocution, wind and rain causing hypothermia and very hot days causing hyperthermia.	<ul style="list-style-type: none"> <li>• 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)</li> <li>• Sessions are stopped in lightning storms for 30 minutes after the last strike.</li> <li>• Guests are recommended to wear appropriate clothing, carry water, and sun cream.</li> <li>• There are shelters available for both rain and sun.</li> <li>• If the weather conditions get too much for groups/individuals, the sessions can be cancelled/postponed.</li> <li>• Water is available free of charge from drinking taps around the grounds.</li> <li>• Instructors can stop a session if they feel the weather conditions are unsuitable and safety might be compromised.</li> <li>• Instructors are trained to recognise signs of hypothermia/hyperthermia and what actions to take.</li> </ul>		
Equipment failure due to poor fitting, misuse, or damage.	<ul style="list-style-type: none"> <li>• Instructors undergo training and assessment in off ground activities which covers correct fitting of PPE.</li> <li>• Staff are monitored with observations and feedback is recorded and passed onto them.</li> <li>• PPE is checked along with the elements as part of the daily pre use checks.</li> <li>• 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.</li> <li>• A complete system check takes place prior to all accents/descents.</li> <li>• PPE is on a regular inspection regime in line with LOLER by a competent person</li> </ul>		
Entrapment of fingers, clothes, or hair.	<ul style="list-style-type: none"> <li>• As part of the kit up process, participants are advised to remove jewellery, tie long hair back and tuck any loose clothing in.</li> </ul>		

	<ul style="list-style-type: none"> <li>Participants are instructed to keep their hands at least one fist away from the belay device.</li> </ul>		
Unauthorised use of the activities	<ul style="list-style-type: none"> <li>The climbing tower and HR compound are locked between sessions.</li> <li>Tree Top trail entry net is raised and secured.</li> <li>Signs warning against unauthorised access displayed.</li> <li>Auto belays are retracted at the end of each day</li> </ul>		
Pressure sores from continual harness use and / or exhaustion from accessing.	<ul style="list-style-type: none"> <li>Only to be conducted by instructors who are trained and assessed.</li> <li>Equipment regularly checked (visual daily and a detailed regular inspection)</li> <li>Minimum of two instructors present when accessing.</li> <li>There will always be an instructor that is rescue trained working on site while high ropes/accessing is taking place.</li> <li>Accessing will only be done in the full body access harness.</li> <li>The Petzl podium seat is available for extra comfort when inspecting wires</li> </ul>		
Inversions compromising the security of the harness	<ul style="list-style-type: none"> <li>On high activities where inversion is likely, either a chest harness or a full body harness is used.</li> <li>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.</li> <li>All lowering off must be while participant is upright.</li> </ul>		
Rope burns from belaying	<ul style="list-style-type: none"> <li>Petzl Rigs are used if participants are belaying.</li> <li>Only the instructor can lower someone down from height.</li> <li>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.</li> </ul>		
Human error - Participants	<ul style="list-style-type: none"> <li>Full co-operation from group leaders in group control and discipline</li> <li>Ongoing assessment of the group's physical and mental ability during the session by instructors and session content adapted if required</li> </ul>		
Limited understanding due to additional support needs	<ul style="list-style-type: none"> <li>Advanced notification and high-level supervision (provided by the groups own staff) required for all groups with substantial support needs.</li> <li>For less substantial support needs, the level of supervision should be agreed before the session commences and monitored throughout.</li> <li>Option for groups to hire additional instructors if deemed beneficial for lower ratio working.</li> </ul>		
Human error by instructor – misuse of equipment.	<ul style="list-style-type: none"> <li>All staff are trained and assessed in the proper use of PPE and site-specific processes.</li> <li>All staff monitored through formal observation and walkabouts.</li> <li>Refresher training delivered annually and if any new equipment/processes are introduced.</li> <li>Techniques are in place to reduce the risk of instructor error such as slow controlled descents only, no acrobatics such as inversion</li> </ul>		

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

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## Climbing (Roped) and Auto Belay Risk Assessment

- Activity** - Climbing (roped) and Auto Belay Activity session.
- What are the hazard (in addition to general RA)?** - Items falling from height.  
- Injury while descending
- Who is at risk?** - Staff, participants, and members of the public

What are the Risks?	Existing Safety Measures/Controls	Likelihood	Risk Rating
Items Falling from height	<ul style="list-style-type: none"> <li>Participants are asked to remove items from their pockets.</li> <li>Dead wooding is carried out on an annual basis in accordance with the tree reports or as necessary.</li> <li>There are regular operational inspections carried out by a competent person.</li> </ul>		
Injury while descending	<ul style="list-style-type: none"> <li>Participants are briefed and given a clear demo on correct descent technique.</li> <li>Participants are recommended to complete a practice lower from just above head level on their first climb.</li> <li>Participants are told to use they feet to walk down the tower when descending.</li> </ul>		
Strangulation during lower on Auto belays	<ul style="list-style-type: none"> <li>Helmets removed.</li> <li>Hoods and any clothing or items which could create an entrapment risk are either removed or tucked away.</li> </ul>		

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# Abseiling Risk Assessment

**Activity**

- Abseiling Activity Session

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

- Fall from interior ladders.
- Entrapment – hair/clothes/ fingers in figure of 8
- Fall from top of tower.
- Injury while descending
- Rope burns to hands

**Who is at risk?**

- Staff, participants, and members of the public

What are the Risks?	Existing Safety Measures/Controls	Likelihood	Risk Rating
Physical injuries, fractures, death from slipping and falling	<ul style="list-style-type: none"> <li>• The instructor’s safety line is short enough to prevent them from falling over the edge of the tower when the abseil gate is open.</li> <li>• There are electric lights inside the climbing tower on the staircase.</li> <li>• The staircase has nonslip steps and handrails throughout.</li> <li>• Surrounding the abseil platform is a permanent barrier with lockable gates.</li> <li>• All gates are kept closed except for the gate that participants need to go through to abseil.</li> <li>• When abseiling, participants are tied into the safety rope, and the instructor has full control before they are taken off the “safety lanyard”.</li> <li>• Before stepping through the gate, all equipment, ropes, and knots are thoroughly checked.</li> <li>• Instructors are secured with their own independent safety lanyard.</li> <li>• The abseil is to be set up as per their training &amp; SOP’s.</li> </ul>		
Entrapment of fingers/clothes/ hair in the figure of 8 on descent of the tower.	<ul style="list-style-type: none"> <li>• The system is explained to participants before they start their abseil and they are told to keep their hands away from the figure of 8.</li> <li>• As part of the kit up process, participants are advised to remove jewellery, tie long hair back and tuck any loose clothing in.</li> <li>• If there is a case, of entanglement all instructors are trained in rescue procedures and the abseil is releasable.</li> </ul>		
Injury during descent	<ul style="list-style-type: none"> <li>• Instructors’ brief participants on proper abseil position ensuring that feet have contact with the wall but not the rest of the body.</li> <li>• Instructors coaching throughout and in constant verbal contact.</li> <li>• A safety line is attached to the participant and if necessary, the instructor will control their descent.</li> <li>• Proper instruction and explanation will be given to the participants about using the figure of eight abseiling device.</li> <li>• Instructors assessed for their competence &amp; observed on a regular basis to ensure they are following correct procedures.</li> </ul>		

Rope burns	<ul style="list-style-type: none"> <li>• The instructor monitors the speed of descent and will slow down the descent if participant is going too quickly using the safety rope.</li> <li>• Participants briefed on how to use the figure of 8 device, including keeping a steady speed.</li> </ul>		
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# High Ropes Risk Assessment

## Activity

- High Ropes Activity Session

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

- Vandalism
- Slips, Trips and Falls
- Falls from height
- Items falling from height
- Adverse weather conditions
- 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
Incorrect use of ladders resulting slipping & falls from height or ladders falling on people.	<ul style="list-style-type: none"> <li>• All staff trained in the safe use of ladders.</li> <li>• All ladders are suitable for the tasks.</li> <li>• Ladders will be secured to poles / 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 / tree.</li> <li>• When accessing the element, the instructor must attach into a safety as soon as possible.</li> </ul>		
Cuts from wire splinters in the wire rope	<ul style="list-style-type: none"> <li>• Participants briefed not to touch the wire ropes.</li> <li>• Wire ropes inspected thoroughly regularly, and damage reported</li> </ul>		
Participants being pulled off apparatus by teammates/falling off elements at height resulting in collisions	<ul style="list-style-type: none"> <li>• Participants are briefed on how to safely use the elements at the start of the session.</li> <li>• Where appropriate a “let go” on command is used when the team becomes unstable</li> <li>• Participants briefed to fend away from the apparatus.</li> <li>• Helmets to be worn.</li> <li>• The tightness of the rope is closely managed by the instructors. If the rope is too tight it can pull people of. However, a slack rope can also be dangerous. Instructors are taught to ‘feel’ the rope as part of their training.</li> </ul>		
Ropes entangling on activities causing injury when falling	<ul style="list-style-type: none"> <li>• Elements are set up in a way where people fall away from each other</li> <li>• Good briefing highlighting the safe method of use for the elements is given</li> </ul>		
Slipping from wires and beams	<ul style="list-style-type: none"> <li>• Correct traversing method explained and coached (wires running widthways across the sole of the foot, rather than lengthways)</li> <li>• Good technique from the belayers</li> <li>• Continual dynamic risk assessment from instructor assessing beams grip.</li> </ul>		
Swinging back into element(s) when stepping off the apparatus to be lowered	<ul style="list-style-type: none"> <li>• Participants asked to step off slowly, where possible after the maximum amount of slack is taken from the system by the belayer.</li> <li>• Participants are asked to fend off the element if appropriate during their descent using their hands / feet</li> </ul>		

	<ul style="list-style-type: none"> <li>• 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</li> <li>• If possible, on the multi-vine participants are asked to climb down the tree until their head is level with the wire.</li> <li>• The belayers are to make themselves</li> <li>• stable and to remain stationary during the decent as much as possible.</li> <li>• 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</li> </ul>		
Crates from Crate stack hitting participants	<ul style="list-style-type: none"> <li>• Crates to be passed hand to hand or use the rope and hook to enable the team climbing to lift the crates up.</li> <li>• The “slot and lift” technique can be taught.</li> <li>• The participants will be spotted by other participants for the first section (until spotting would be unproductive)</li> </ul>		
Falling when close to the ground	<ul style="list-style-type: none"> <li>• Instructor to ensure belay rope is kept as tight as possible without hindering those taking part.</li> <li>• Low stretch rope used on all elements except for the single &amp; double trapeze and high all aboard.</li> <li>• For Incline log - The participants will be spotted by other participants for the first section (until spotting would be unproductive)</li> </ul>		

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# 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"> <li>• Annual staff updates.</li> <li>• Annual inspection by professional outside company.</li> <li>• All equipment fitted to individual participants and checked prior to ascent including harnesses and helmets.</li> <li>• Safety systems in use for all aspects of the zip wire experience from ascent to descent</li> <li>• Instructors will get their PPE checked by another qualified instructor before accessing.</li> <li>• Instructor safety is via ASAP, cow's tails and Grillon</li> <li>• Two instructors on all sessions with the instructor running the platform fully trained and assessed in rescue techniques.</li> <li>• First aid kit and radio at the activity base.</li> <li>• All equipment suited to the purpose.</li> <li>• All equipment removed or secured when the activity base is not in use.</li> <li>• Gate to inside wall is locked when not in use.</li> <li>• Staff trained internally on how to access the wire safely</li> </ul>		
Proximity to water - drowning and Weils disease	<ul style="list-style-type: none"> <li>• Overwater rescues are highly unlikely, but DIs are trained to perform these.</li> <li>• Life rings and warning signs around the edge of the lake</li> <li>• Group leaders must be present on every session, and they must remain in charge of group control and discipline.</li> <li>• Group leaders asked to help supervise the participants as they walk around the lake.</li> <li>• Groups given a thorough briefing prior to the activity and possible dangers pointed out including proximity to water.</li> <li>• Hand washing encouraged at the end of the session.</li> </ul>		
Entrapment in the ropes or hitting the landing platform at speed resulting in impact injuries	<ul style="list-style-type: none"> <li>• 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.</li> <li>• All instructors are assessed and are familiar with emergency procedures.</li> </ul>		

	<ul style="list-style-type: none"> <li>• Relevant lanyards are used depending on height of the participants.</li> </ul>		
Rope Burn	<ul style="list-style-type: none"> <li>• Gloves to be available for instructors accessing/inspecting</li> <li>• Instructor control and awareness.</li> <li>• Only instructors are to be involved in the braking system</li> <li>• Participants are never in control of their ropes; this is always done by the instructors.</li> </ul>		

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# Tree Top Trail Risk Assessment

**Activity**

- Tree Top Trail (TTT)

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

- Unauthorised use
- Vandalism
- Slips, Trips and Falls
- Fall from height
- Items falling from height
- Adverse weather conditions
- Human error, inappropriate use of equipment
- Slipping on foot wires, collisions
- Swinging into trees

**Who is at risk?**

- Staff, participants, and members of the public

What are the risks?	Existing Safety measure/control	Likelihood	Risk rating
Cuts from wire splinters in the wire rope, platforms / elements	<ul style="list-style-type: none"> <li>• Participants briefed not to touch the element wires</li> <li>• Course undergoes a pre use visual check before the start of each day.</li> <li>• Course inspected thoroughly regularly, and damage reported</li> <li>• As part of the safety brief clients are made aware of the risk when moving around the course as it is made from wood.</li> </ul>		
Entangling on activities	<ul style="list-style-type: none"> <li>• Elements are set up in a way where to reduce entrapment in the event of a fall.</li> <li>• Lanyards are set up in a way to reduce the distance a participant will drop if they fall.</li> <li>• Good briefing highlighting the safe method travel across the elements.</li> <li>• There is a rescue kit at the start of the course and the course can either be accessed from the start or a halfway point in the event of a rescue.</li> </ul>		
Falling from the course	<ul style="list-style-type: none"> <li>• PPE is checked prior to participants starting the course.</li> <li>• The safe roller trolleys can only be removed from the wire with a specific tool so the likelihood of participants being able to detach the trolley is minimal.</li> <li>• Participants are attached to the safe roller trolley via a maillon which is done up a quarter turn with a spanner so it cannot be undo by hands.</li> <li>• Lanyards are set up in a way to reduce the distance a participant will drop if they fall.</li> </ul>		
Items falling from height	<ul style="list-style-type: none"> <li>• Phones and cameras can only be taken onto the course if they are attached to a lanyard.</li> <li>• As part of the safety brief / kit up, instructors should ensure all footwear is fitted correctly and done up.</li> </ul>		
Collisions with other people	<ul style="list-style-type: none"> <li>• One participant per element at any one time</li> <li>• As part of the safety brief, participants are told only to descend the zip wire when the cargo net is clear at the other end.</li> <li>• There is a sign reminding people of the rules prior to getting onto the course.</li> </ul>		

	<ul style="list-style-type: none"> <li>• There is another sign reminding people of the rules before each zip wire.</li> </ul>		
Unauthorised usage	<ul style="list-style-type: none"> <li>• The course is fitted with no entry signs at the start &amp; finish.</li> <li>• The start of the course is hoisted up at the end of the day.</li> <li>• The finish of the course is padlocked shut at the end of the day.</li> <li>• During the day when the course is in use signs will be in place at the start to make people aware, they should not enter the area.</li> </ul>		

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