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| Hazard Assessment & Risk Management Plan | | | | |
| Activity | Sport Climbing (Rocks HARM plan must be used alongside this one.) | | | |
| **Activity Scope** | Rock Climbing including bouldering, Lead climbing experiences at single pitch rock climbing sites, using fixed anchors. | | | |
| **Staff Deployment Levels** | Rock Lead | | **Recommended Ratio** 1:6; Max or 2 separate climbs | |
| **Identified Hazard** | **Risk**  **(**What harm could be caused?**)** | **Hazard risk Assessment** | **Risk Management**  **(These management strategies help to eliminate or minimise risk to client and staff)** | **Residual Risk after control** |
| Heights | Injury or death from ground fall (including ledges) or collision | Extreme | * Teach spotting to the 1st bolt * Ensure buddy checks are done before leaving ground * Teach staying on route * Teach clipping techniques (see next hazard down for details) * Teach personal safety at the top of the climb & when transitioning * Ensure gap between clips is not too big * Teach correct belay techniques (active belaying) * Check client’s top rope belaying technique, if poor use a backup belay with a prussic or use an assisted locking device. (eg grigri) * Teach lead belay with a phantom1 rope attached * Have a phantom belay until the instructor is confident with the climber and belayer’s skills * Staff and clients need 2 points of safety when working at height * When climber has progressed and is ready to climb without phantom, teach falling techniques (fall like a cat, knees slightly bent using 4 points of contact to spread the impact.) * Instructor to be hyper-vigilant when student is clipping 1st bolt or climbing above a ledge. * Have client demonstrate transition technique on the ground * Instruct from a position where you can see climber do the transition * Have them practise with the phantom belay attached * Teach a progression * Teach always having 2 points of safety * Teach to never undo something that’s under load * Staff deployment (NZOIA sport endorsement) | Med |
| Unsafe falling | Injury | Med | * Teach falling technique |  |
| Unsafe clipping;  Back clipping, Z- clipping, long clipping when low or not clipping a bolt, poor stance. | Injury or death from falling due to unsafe clipping | Extreme | * Teach front clipping and why (explain how to recognise back clipping) * Teach them how to clip into the hanger (directional clipping) * Teach how not to Z clip * Teach strong stance for clipping * Teach clipping zone (eye-hip) * Teach clipping techniques * When lead climbing without a phantom, pre clip the 1st bolt of client until the instructor is confident in the client’s climbing ability and the belayer’s spotting ability. * Teach communication with the belay ‘clipping’, ‘clipped’ * Staff deployment (NZOIA sport endorsement) |  |
| Poor Climbing awareness;  harness too low,  carrying gear, ledge, ground, leg behind rope, rope between legs between the 1st and 2nd bolt | Injury from being flipped upside down, collision, hitting ledge or rope burn | Med | * Fit harnesses and helmet correctly * Teach climbing awareness so their leg is not behind rope * Treat ledges as a potential ground fall area * Check ground condition before bouldering to the 1st clip * Don’t let clients climb with bags. * Staff deployment (NZOIA sport endorsement) | Low |
| Transitions | Injury or death from falling due to poor transitions | Extreme | * Have them demonstrate on the ground * Be in a position where you can see them do the transition (short climb or at the top with them, binoculars can be helpful) * Have them practise transition with the phantom rope still attached as a backup. * Teach a progression * Teach to always have 2 points of safety (eg. clipped into 2 bolts, rope running through 2 bolts or top rope set up, when abseiling have a backup, either a prussic or a bottom belay) * Teach student not to undo something under load. * Staff deployment (NZOIA sport endorsement) | Med |
| Poor Communication | Injury or death due to miscommunication | Extreme | * Teach appropriate communication and buddy checks * Communicate plan for at the top of the climb * Keep unneeded communication from top to the bottom at a minimum * Use names when possible | Low |
| Falling rocks, or object | Injury due to falling object | High | * Everyone must wear an approved helmet * Belay out of the climbers fall zone. * Check climb for loose rocks or bolts before using it with clients * Cover rock fall in briefing (call **Rock)** * Progression is to cover keeping gear secure will working at height * Call ‘**rope’** when dropping or pulling through rope | Low |
| Bolt failure | Injury or death from falling due to bolt failure | Extreme | * Check bolts before using with clients (loose, damaged) * Create redundancy by having two points of safety at the top. * If lowering a climber from a bolt do not remove the quick draws below it. * Use known crags | MED |
| Gear failure | Injury or death due to gear failure | Extreme | * All gear must have passed its 6 month gear check. * Gear is retired before or at its manufactures recommended date. * Instructor is to check gear before it is used. If damage is found it must be removed from circulation * Instructor is to check gear is fitted correctly * If personal gear is being used it need to be checked by the instructor and of good age and condition. | Low |
| Client skill | Injury by lack of ability | High | * Instructor to use a progression to gain competency * Client needs to demonstrate appropriate competencies to move on to climbing without a phantom or belaying without a back up | Low |
| Staff competencies | Injury to a client due to a poor judgement call or teaching progression | Extreme | * Sport climbing instructors must hold a current 1st aid and current NZOIA sport climbing endorsement, award or higher. | Low |

1 Phantom belay; Also known as a ‘ghost rope’. Where a top rope is set up with a separate belayer to enable the novice lead climber to climb without the fear of taking a serious fall.