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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
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| 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)
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| 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.