

NZOIA

Rock 2 Syllabus

Self-directed training tool

This training tool has been created for people who are learning the skills that will be assessed by this NZOIA award. It is a summary of many of the basic topics and tasks in which a candidate should be proficient before putting themselves forward for assessment. A good way to use this training tool is as a check-list that gives you feedback on the state of your preparation. Ask climbing friends, fellow trainee-candidates, and skilled instructors to “rate” you according to the criteria within this document. Also, use it as a means of raising issues for reflection about your own climbing and instructional experience.

Please note that no list of assessment criteria can ever fully capture all that you need to know in order to be an effective instructor. NZOIA believes that skill and good judgement are best gained through plenty of experience and considered reflection. This training tool is merely a supplement to the time you spend doing and thinking about climbing and instruction.

Personal Skills:

<p style="text-align: center;">SKILLS</p> <p><i>Environmental awareness</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>1. Demonstrate care for the environment in accordance with NZOIA environmental criteria.</p>	
<p>2. Describe environmental issues concerning the following:</p> <ul style="list-style-type: none"> • chipping..... • glue-ing..... • brushing..... • bolting..... • fixed protection..... • new route creation..... 	
<p>3. Demonstrate “minimum impact” usage of the cliff and the surrounding natural environment.</p>	
<p>4. Demonstrates basic knowledge of the geology of the local crag/s, and the implications this has for rock climbers</p>	
<p>5. Describe and demonstrate practices that minimise rope-wear on fixed anchors and the crag edge, and model these practices.</p>	

<p style="text-align: center;">SKILLS</p> <p><i>History</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>6. Describe the historical development of rock climbing as an activity in NZ, and draw links with history and trends of other countries.</p>	
<p>7. Describe the history of rock climbing at local crag/s.</p>	
<p>8. Describe and act sensitively with respect to access issues, by-laws, or other restrictions concerning private landowners, tangata whenua and/or DOC that apply to rock climbing at a given site.</p>	

<p style="text-align: center;">SKILLS</p> <p><i>Rope-skills</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>9. Demonstrate coiling and uncoiling of dynamic and static ropes in preparation for use, carrying, or storage.</p>	
<p>10. Tie the following knots and hitches, and explain their uses, advantages, and disadvantages:</p> <ul style="list-style-type: none"> • figure 8 knot..... • double figure 8 knot on a bight..... • re-threaded figure 8 knot..... • double fisherman knot..... • tape (water) knot..... • clove hitch..... • belay device lock-off knot..... • classic prusik hitch..... • Kleinheist prusik hitch..... • release-able prusik hitch..... • Italian (“Munter”) hitch..... • bowline..... • multiple half hitches..... 	
<p>11. Demonstrate safe belaying technique/s using the following items of equipment, and describe hazards or inefficiencies associated with each item:</p> <ul style="list-style-type: none"> • standard belay plate..... • Figure 8 belay device..... • Italian hitch..... • Grigri..... 	
<p>12. Describe the advantages and hazards associated with equipment log systems, and demonstrate the use of a logging system.</p>	

<p style="text-align: center;">SKILLS</p> <p><i>Equipment</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>13. Demonstrates knowledge of use, safety requirements, construction, and identification of wear of current rock climbing equipment:</p> <ul style="list-style-type: none"> • rock shoes..... • harnesses..... • helmets..... • karabiners..... • tape..... • dynamic rope..... • static rope..... • rock protection - jamming and camming..... • bolts..... • chain link (as used for anchors)..... • pitons..... • chalk..... 	
<p>14. Demonstrate care of ropes, and awareness of factors that may damage ropes. For example:</p> <ul style="list-style-type: none"> • use of rope protectors..... • alignment of ropes to minimise friction and wear..... • use of rope “bags”..... • substances that damage nylon ropes..... • recording of rope use in rope log..... 	
<p>15. Describe the placement of different bolt types. (Range: compression, expansion and glue-in bolt types.)</p>	
<p>16. Identify the basic components of bolt anchors. (Range: bolts, brackets, super-shuts, chain links, abseil rings, shackles, maillons.)</p>	
<p>17. Demonstrate care of all climbing equipment during use, transport, and storage.</p>	

<p style="text-align: center;">SKILLS</p> <p><i>Anchors</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>18. Select existing features as anchor points; e.g., trees, fences, rock bollards and threads, bolts, chain links.</p>	
<p>19. Construct an anchor set-up using 2 or more bolts in a way that maximises the inherent strength of the fixed equipment employed in the set-up.</p>	
<p>20. Constructs a fixed anchor set-up in such a way that any running rope (e.g., a sling-shot top-rope) does not cause repeated unnecessary wear on the fixed equipment.</p>	
<p>21. Selects and places natural protection to create multiple (at least 3) anchor points. (Tips: Choose selection of natural protection according to rock quality, crack size, crack shape, fit/surface-contact of protection item, & orientation to force.)</p>	
<p>22. Links 3 or more anchors together to build a bombproof single-directional anchor using:</p> <ul style="list-style-type: none"> • existing anchor points..... • natural protection anchor points..... <p>(Tips: Ensure there is a minimal angle at master focal point [$<60^\circ$ ideal; $<90^\circ$ max.], the load is shared amongst anchor arms, and the anchor arms are independently linked.)</p>	
<p>23. Links 3 or more anchors together to build a bombproof multi-directional anchor using either existing anchor points or natural protection anchor points</p> <p>(Range: minimal angle at master focal point [$<60^\circ$ ideal; $<90^\circ$ max.], load shared between anchor arms.)</p>	
<p>24. Demonstrates the judgement to determine when an anchor is “bombproof”, but does not employ excessive “over-engineering”. (Range: quality and number of anchor points, materials used to connect anchor points, karabiners - locking and snap.)</p>	
<p><i>for top rope set-up</i></p>	
<p>25. Arrange the anchor working-point so that it cannot be dangerously abraded by sharp rock edges.</p>	
<p>26. Arrange anchor focal point so that a “sling-shot” top-rope runs freely at the cliff-top.</p>	
<p><i>for abseil set-up</i></p>	
<p>27. Arrange anchor focal point so that the abseil rope is anchored high in relation to the abseil take-off zone (where possible).</p>	

<p style="text-align: center;">SKILLS</p> <p><i>Personal climbing</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>28. Always ensure personal safety.</p>	
<p>29. Role-model the use of personal safety systems when in situations of real risk.</p>	
<p>30. Demonstrate the following climbing techniques:</p> <ul style="list-style-type: none"> • torso bent to keep weight over feet..... • foot edging - “inside” & “back” edging..... • finger clings and crimps..... • finger side pulls..... • slab climbing technique..... • basic crack climbing technique..... • layback climbing technique..... • mantleshelf technique..... • body “centre of effort” located inside triangular positioning of hand and foot holds..... • diagonal movement..... • parallel movement..... • heel hooking..... • foot flagging..... • knee bar..... • rock-overs..... • wide stemming..... • body tension..... • cross-throughs..... • off-size crack climbing techniques..... • dynamic moves..... • Minimum effort positions from which to place protection.... 	
<p>31. Demonstrate an understanding of the format and use of a rock climbing guide-book.</p>	
<p>32. Top-rope a climb of grade 20, demonstrating relaxed and effective climbing technique.</p>	
<p>33. Demonstrate safe and confident belaying and lowering of a partner who is top-roping a climb. (Tips: Consider significant weight discrepancies and effective solutions; positioning of self in relation to focal point; use of standard climbing calls; taking in rope; feeding out rope; holding a fall; locking off rope; lowering.)</p>	

<p style="text-align: center;">SKILLS</p> <p><i>Personal climbing (con)</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>34. Demonstrate placement of natural protection at varied sites. (Tips: Consider selection of natural protection according to rock quality, crack size, crack shape, fit/surface-contact of protection item, & orientation to force):</p> <ul style="list-style-type: none"> • slings..... • jamming devices..... • camming devices..... 	
<p>35. Demonstrate safe and effective practices while leading a climb of grade 20 using natural protection. (Tips: Consider pre-organisation of equipment; relaxed climbing style; quick and accurate selection of rock protection according to rock quality, size, shape, surface contact & orientation to force; efficient but safe spacing between protection; use of sling extensions to minimise rope drag as necessary; efficient clipping of rope into karabiners.)</p>	
<p>36. Demonstrate safe and confident belaying and lowering of a partner while they are leading a climb. (Tips: Consider significant weight discrepancies and effective solutions; positioning of self in relation to focal point; use of standard climbing calls; taking in rope; feeding out rope; holding a fall; locking off rope; lowering.)</p>	
<p>37. Demonstrate a safe and efficient conversion from lead climbing to being lowered off from a fixed lowering-anchor at the top of a route without leaving any gear behind.</p>	
<p>38. Demonstrate a safe and efficient conversion from lead climbing to abseiling during a partial ascent of a short route that has bolt (with bracket) protection, without leaving any gear behind.</p>	
<p>39. Demonstrate efficient double rope management on a meandering climb:</p> <ul style="list-style-type: none"> • while leading • while belaying 	

<p style="text-align: center;">SKILLS</p> <p><i>Personal climbing (con)</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>40. Demonstrate efficient multi-pitch climbing skills, including:</p> <ul style="list-style-type: none"> • safety of self and partner at all times..... • use of conventional climbing calls, plus overall effective communication..... • construction of natural anchors designed for both downward and upward loading..... • efficient stance management (e.g., anchor construction, personal and partner positioning, rope management)..... • safe lead-climbing practices (e.g., runner placements, fall factor considerations, rope drag, rope management, belay construction, belaying of leader and second, communication)..... • safe and efficient multi-pitch abseiling practices (e.g., anchor set-up, minimal loss of equipment, rope management, abseil safety back-ups, abseiling technique, communication, rope retrieval)..... 	

Group Management & Instruction Skills:

<p style="text-align: center;">SKILLS</p> <p><i>Risk management - instruction</i></p>	<p style="text-align: center;">COMMENTS</p>
41. Never compromise the safety of clients or members of the public at the crag.	
42. Describe / demonstrate a system for checking client medical conditions, and for obtaining relevant client details; e.g., contact address/phone, next of kin.	
43. Prepare and deliver a session plan for any given skills contained within this award to a given audience.	
44. Present a given teaching session: <ul style="list-style-type: none"> • preparation..... • introduction..... • appropriate voice and language..... • body language..... • teaching/visual aids..... • demonstrations..... • evaluation of learning..... 	
45. Demonstrate an awareness and sensitivity to the cultural / special needs of a given group.	
46. Demonstrate effective and full group briefings and de-briefings.	
47. Demonstrate the leadership styles most relevant to a given group: <ul style="list-style-type: none"> • match style to individual and group knowledge and maturity..... • match style to level of risk inherent in activity..... • create a participative learning environment..... • role-model an open and tolerant approach to others..... • “listen” to individual and group needs..... 	
48. Demonstrates site and client safety checks throughout the instructional session, including set-up and break-down.	
49. Direct students’ positioning while approaching and leaving the crag and while at the crag’s top and bottom so as to minimise hazards throughout the instructional setting.	
50. Ensure ready access to an appropriately provisioned 1 st Aid kit throughout the session.	
51. Demonstrate awareness of procedures and actions to take in the event of an injury, including a means of quick contact with outside help.	

<p style="text-align: center;">SKILLS</p> <p><i>Specific “people” skills</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>Demonstrate the ability to do the following:</p> <ul style="list-style-type: none"> 52. Give clear instructions and checks that they are understood. 53. Be approachable, open and tolerant. 54. Stop unacceptable behaviours constructively. 55. Be assertive and directive when required. 56. Deal constructively with conflict. 57. Deal effectively with own anger and/or frustration. 58. Deal constructively and efficiently with crisis. 59. Facilitate group discussions. 60. Use language appropriate for the situation/group. 61. Be aware of sensitivities of minority members in group. 62. Deal with individual’s fear and anxieties. 63. Engender enthusiasm. 64. Gain co-operation and interest. 65. Be client-orientated. 	

<p style="text-align: center;">SKILLS</p> <p><i>Top rope climbing instruction</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>66. Choose a site that matches the difficulty of the climbs, the <i>real</i> risk involved in working at that site, the ability of the students, and their own abilities.</p>	
<p>67. Ensure that each student climber’s and belayer’s harness is safe, correctly attached and snugly fitting.</p>	
<p>68. Organise effective and safe tie-in systems for the students who are climbing (e.g., re-threaded fig. 8 knot; twin krabs, with at least one a locking krab).</p>	
<p>69. Organise effective and safe belaying systems for the students to use (e.g., mechanical belay plates; back-up belayer; “10 Boy Scouts” method).</p>	
<p>70. Organise and uses a system of standard climbing calls for communication.</p>	
<p>71. Organise a safe system of descent from the top of the climbs.</p>	
<p>72. Position yourself throughout the activity so that they are able to observe and communicate with all students, as well as able to quickly respond to crises.</p>	

<p style="text-align: center;">SKILLS</p> <p><i>Lead climbing instruction</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>73. Choose a site that matches the difficulty of the climbs with the <i>real</i> risk involved in working at that site, the ability of the students, and their own abilities.</p>	
<p>74. Use a sequenced teaching progression throughout the instruction of lead climbing skills.</p>	
<p>75. Use a comprehensive approach to the teaching of lead climbing skills that includes:</p> <ul style="list-style-type: none"> • checks of equipment and communication..... • racking of equipment..... • belaying (including dynamic)..... • clipping of bolts..... • placement of protection..... • falling..... • significance of “fall-factors”..... 	
<p>76. Instruct a student in safe and efficient systems to be used by a climber who has reached the fixed anchors at the top of a climb and is converting from a lead system to a lower directly off the fixed equipment. The systems described must include circumstances where a bight of rope can be fed through a lower-off point, and where a bight of rope will not fit through a lower-off point.</p>	
<p>77. Role-model safe and efficient methods for gear retrieval from climbs of the following nature:</p> <ul style="list-style-type: none"> • vertical..... • steadily overhanging..... • large roof..... • convex (overhanging, followed by an easy-angled slab). 	

SKILLS	COMMENTS
<i>Abseiling instruction</i>	
78. Choose a site that matches the ability of the students with the difficulty of the abseil and with the risk inherent in the activity (that is, the <i>real</i> risk involved in working at that particular site).	
79. Direct students' positioning in order to minimise hazards while approaching and leaving the site and while at the site's top and bottom throughout the instructional setting.	
80. Set up an abseil for students that includes: <ul style="list-style-type: none"> • an anchor focal point which is located above the student take-off zone (where possible)..... • a release-able abseil line..... • a belayed safety line for the student abseiler..... • an instructor safety line..... 	
81. Ensure that each student who is abseiling is wearing a safe, correctly attached and snugly fitting harness.	
82. Position yourself in relation to the cliff edge so that communication with the student abseiler is possible throughout the descent.	

SKILLS	COMMENTS
<i>Coaching</i>	
83. Conduct a safe and informative bouldering session. (Tips: disclosure of hazards of the particular site; warm-ups; low traverses; spotting; height above ground; demonstrations that are useful and well-executed; instructions that are informative; general enthusiasm and fun; sequential lesson plan incorporating technical progressions; training tips.)	
84. Provide motivational coaching advice in any other Rock 2 syllabus area to assist in making the climbing experience an enjoyable one for the students.	
85. Adapt the instructional programme and teaching style to the situation.	
86. Explains the understanding behind why specific techniques are best suited to a particular time, place and objective.	
87. <i>Demonstrate the ability to teach trainee rock climbing instructors the skills required for operating as a NZOIA Rock 1 climbing instructor.</i>	
88. <i>Demonstrate the ability to facilitate a discussion among peers regarding an aspect of rock instruction.</i>	

<p style="text-align: center;">SKILLS</p> <p><i>Rescue</i></p>	<p style="text-align: center;">COMMENTS</p>
<p>89. Demonstrate a safe and efficient rescue of a student abseiler from the following situations:</p> <ul style="list-style-type: none"> • jammed abseil device..... • client releasing abseil line..... • inverted client..... • frightened abseiler..... • injured abseiler..... 	
<p>90. Demonstrate a safe and efficient rescue of a top-rope climber involving the following situations:</p> <ul style="list-style-type: none"> • climber has “frozen”, and refuses to be lowered to the ground..... • climber has foot or knee jammed in a crack in the rock..... • climber has been injured by rock-fall, and “blocky” terrain does not allow them to be “free”-lowered to the ground..... • top-rope has jammed at lip..... <p>Nb. Practise each of the above situations beginning with the student-climber being belayed by another student.</p>	
<p>91. (The next two tasks have the following range: a simulated situation where the belayer has tied him/herself to an anchor at the top of a cliff after leading the last pitch of the climb, the working-point of the anchor is beyond arm’s reach, the belayer has the belay device attached to her/his harness, and the climbing partner has fallen off when 5 - 10 metres below their stance):</p> <ul style="list-style-type: none"> • Demonstrate an assisted hoist..... • Demonstrate “escaping from the belay system”..... 	
<p>92. Demonstrate a multi-pitch abseil rescue of:</p> <ul style="list-style-type: none"> • a climber with two sprained wrists..... • a physically incapacitated climber..... <p>Nb. Use a flat ledge to begin the demonstration.</p>	
<p>93. Demonstrates a single-person rescue of a lead climber who has taken a fall, is suspended from their highest runner, is injured, and whose present position is more than half the length of the rope above the belay stance in vertical distance.</p>	
<p>94. Demonstrates (93.), but do so in the context of a multi-pitch situation, with the task to be performed at the 2nd pitch (or higher).</p>	
<p>95. Demonstrate a leadership role in a team-rescue of an injured climber in a multi-pitch scenario (both lower and raise).</p>	