

## CRATE STACK

Crate Stack Goal – Purpose of the activity.	
<p>Challenge courses are also known as challenge ropes courses. <i>Participants</i> are required to use dexterity, strength, balance and complex physical movements to successfully traverse the element or course of elements. Challenge courses are often used for experiential learning, personal challenge or team building purposes but also for entertainment. Challenge ropes courses are designed to present physical and mental challenges to individuals and groups.</p> <p>The aim of the Crate Stack is to build and climb a tower of crates as high as you can before it topples and comes crashing down. The challenge is that at least one team member must be stood on the top of the tower. The whole team is involved in building the tower and need to work together to support, lift and stack more crates for the climber. There are various ways to build the tower depending on the level of challenge required, from a base of just 2 crates with 2 people on the top, to a base of 4 with just one climber on the top.</p> <p>It may be appropriate to set a target for the team to reach a certain number of levels, or to give a time limit. We can have two individual towers at the same time and a race to see which one can get the highest. Once the tower topples the climbers will be safely lowered to the ground by the belay team.</p> <p>Crate Stack is a “High Element” <i>and</i> is an element for which safety can no longer be achieved by spotting and requires a <i>belay system</i> using harnesses and specialist safety equipment or other established methods or systems.</p>	
Participants	Leadership and Qualifications
<p>Participants are those persons who undertake the activity, and who are not a leader or assistant leader for the activity. Dependent Participants are persons owed a duty of care by the activity provider who is reliant upon the activity leaders for supervision, guidance and instruction to support the person’s participation.</p> <p>All participants are to be considered Dependent Participants for this activity.</p> <p>There will be a maximum of 2 active participants (Crate Stackers), maximum 2 Build Team members, and minimum of 5 participants on each Belay Team (donkey belay)</p>	<p>Activity leaders should have or be able to demonstrate:</p> <ul style="list-style-type: none"> <li>• Core Good Practice Guide Leader General Competencies (Appendix M Core Good Practice Guide)</li> <li>• Specific competencies as outlined in the Challenge Course Good Practice Guide Appendix 9</li> </ul> <p>Leaders may demonstrate their competency through any of the 4 recognised pathways:</p> <ul style="list-style-type: none"> <li>• Training Qualification and/or Training Course</li> <li>• Outdoor Sector and/or Organisation Accreditation Scheme</li> <li>• Leader Registration Schemes</li> <li>• Peer Recognition and Verification Process</li> </ul>
Participant/Leader Ratios	
<p>Ratio 1:20 + 1 School Staff Member (Assistant Leader) for school groups. Activity Leader is to provide Level 1 (Direct Supervision), Assistant Leader (school personnel) is to provide Level 2 Supervision.</p>	
Operational Procedures	Location: Lake Cooby
<p>Participants are to be briefed by the facilitator of the expectations of the group. Linking in with their values discussed at the start of camp.</p> <p>The group then is run through what to expect and do that session, depending on the weather and ability of the group.</p> <p><b>Pre-Activity</b></p> <p>The psychological preparation of students is as important as the physical preparation, especially for students who are anxious about the activity. Under no circumstances should students be pressured by staff or peers to participate beyond their readiness. A challenge by choice should be used for all participants. They should all be encouraged to fit a harness in preparation for the activity, or at least to be part of the belay team.</p> <p>A safety brief is given and a demonstration of how to wear a harness and helmet correctly and how to use the carabiners and ropes safety.</p> <ul style="list-style-type: none"> <li>• All participants must wear appropriate clothing and be sun smart with sunscreen, hat, etc.</li> <li>• Everyone is to wear a harness (and a helmet when required) for the session and is not to take it off unless instructed by the facilitator or at the end of the session as directed.</li> </ul> <p>Before each student’s participation in the Crate Stack, a qualified or appropriately experienced staff member will fit a full-body harness to the climbers. The Activity Leader must visually check to ensure that the harness has been fitted correctly and that the attachment has been checked.</p> <ul style="list-style-type: none"> <li>• Once the safety brief is done the group is put into 2 smaller groups. The facilitator might want to pick groups (confidence levels, spilt trouble makers etc.)</li> </ul>	

- The group is then attached to the ropes and are given a verbal example of what they would do prior to the climber beginning
- The group is asked to do a SQUEEZE TEST. This means all participants are to squeeze their carabiners. If the gate is locked /closed the participants are to put their thumbs up. If the carabiner gate is open, participants must close it prior to putting their thumbs up. Thumbs up indicates all participants are safely attached to the rope. Instructors may find it beneficial to walk up and down the group while conducting a SQUEEZE TEST in order to double check the gates are closed. Participants are then to wait for further instructions.
- Once the facilitator is happy with the ability of the group they will begin the activity.
- No one is to hold onto the rope while donkey belaying - this can cause rope burn.

**During Activity**

- Climbers must stay on the ground until instructed to start climbing.
- When belaying, there should be no slack in the rope. The donkeys should move backwards or forwards depending on the direction needed in order to keep the rope tight. It should not be too tight as this can cause discomfort.
- Climbers should not begin climbing if there is slack in the rope.
- Both climbers and belayers must be very aware in the 1<sup>st</sup> 2m of the crate stack (approx. 4 crates high). As there is some stretch in the belay rope, there is the potential for climbers to contact the ground if they fall off the crates. Belayers must watch the climber carefully and be ready to react if the climber falls.
- The Crate Stack build team should all be wearing helmets. The build team are not to place the crates. The crates should be passed to the climber to stack.
- Once the climber has reached the top, donkeys will be asked to pause and wait for the Activity Leader's instructions on how to lower the climber down.
- There should be good communication between belayers and climbers at all times, especially when the climber is placing crates or stepping up onto crates.

**Post Activity**

All harnesses to be fully extended and placed into boxes for next session.

The facilitator will front load the participants before the debrief to think about how they may have improved on their values or maybe achieved a goal they set from them self or team before heading. They then will be challenged to apply those values/goals back at camp and home.

**Weather**

Effective planning requires access to up-to-date weather and fire information, which is generally available through newspapers, radio and television. The most up-to-date information is available on the website of the Bureau of Meteorology at [www.bom.gov.au/qld](http://www.bom.gov.au/qld) . Or

<http://www.eldersweather.com.au/qld/darling-downs/geham>

**Equipment and Logistics**

Generic Requirements –

Equipment, whether hired, borrowed or owned by the school or students, must be in a safe condition and suitable for the activity

**Belay Devices**

Belaying devices must meet Australian standards. Devices must be in good working order.

**Harnesses**

Providers of artificial climbing and abseiling activities must refer to manufacturers and installers to establish appropriate operating parameters. These parameters must address the correct fitting and attachment of harnesses. The harness must also ensure the student or staff member will remain secure in the event of an inversion. Harnesses must be regularly checked and replaced, if necessary, with a recommended maximum life span of five years.

**Helmets**

Helmets which meet Australian standards must be worn by all students and staff using high elements and by those belaying or observing from below. Caps must not be worn under helmets.

**Ropes**

Ropes used on a challenge rope course must be used in accordance with manufacturer recommendations and meet Australian Standards.

Before the activity commences, an experienced staff member needs to inspect the ropes.

The ropes' history and maintenance needs to be logged and the ropes must be stored in a cool, dry place free from ultraviolet light, chemical or physical hazards.

**Shoes**

Participants must wear covered and firmly fitting shoes with a non-slip sole.

**Specific Equipment**

**Crates**

Crates must be in good working order and able to hold the weight of a participant. They should have no sharp edges or protrusions.

**Full-body Harnesses**

Appropriate sizing of full-body harnesses is important. All harness have to be selected to appropriately fit the participants. Smaller or larger harnesses must be selected for participants. All non-climbing participants will wear a sit harness for the entire session. Full body harnesses can be fitted over the sit harness.

**Ropes**

Appropriate ropes for the Crate Stack must be used. They must be dynamic ropes and the appropriate length (approx 30m).  
 Rope Set-up: Appropriate knots must be used to attach the belay rope to the full body harness. A double figure eight can be tied directly to the harness or through a tri-lock carabiner. 5-6 Alpine Butterfly knots are to be tied into the end of the rope for the Belay Team. A double figure 8 can be used at the very end. Each Alpine Butterfly and end figure 8 must have a steel screw-gate carabiner fitted.

**First aid kits**

First aid kits appropriate to the location and level of training must be carried.

**Rescue equipment**

Rescue equipment specific to the ropes course must be accessible at all times.

**Clothing**

Clothing is the individual's primary protection against severe and variable weather conditions.  
 Clothing lists need to be appropriate for the activity, environment and season. Items which are recommended not to be taken or worn (such as jewelry or rings) should be identified.  
 Glasses or sunglasses should be secured and long hair tied back to avoid being caught in belay devices or other equipment. Loose jewelry must not be worn and rings should be taped if not removed. Items of jewelry or rings which students remove should be placed in a secure location so they do not get lost.  
 All objects should be removed from pockets before participating.  
 To protect against sunburn use broad-spectrum, water-resistant SPF 30+ sunscreen on all exposed parts of the body, applied according to the manufacturer's recommendations. Students who own sunglasses should be encouraged to bring and wear them when required.

**Identification**

Staff and students must be easily identifiable.  
 Staff must determine the most suitable system/s of identification, based on the assessment of the environment, students' skills, the type of activities to be undertaken and the age and number of students.

**Levels of Challenge and Possible Variations**

Single Climber – 1 belay team  
 Double Climber – 2 belay teams  
 Individual Climbers (2) timed race  
 Blind folded

**Safety Considerations**

**Sun Safety**

Sunburn is a risk for anyone who participates in outdoor activities, particularly in Queensland. Leaders should take reasonable steps to prevent or minimise the likelihood of staff and participants suffering excessive sun exposure.

**Weather**

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Ensure all safety equipment is fitted correctly.  
 Ensure clear instructions are given to participants.  
 Ensure the crates are moved away by the instructor. Do not let participants kick crates.

**Course construction and security**

The construction of challenge ropes courses is an expert field and should be undertaken by qualified individuals and/or organisations specialising in the planning and construction of ropes courses.  
 Contractors must provide written confirmation that the materials, equipment and installation meet current industry requirements.  
 Staff must ensure that challenge ropes course elements are not accessible when unsupervised.

**Maintenance**

The owner of the course must carry out regular formal maintenance inspections which are fully documented and endorsed by an independent industry expert. Operators must be able to provide written evidence that a maintenance check has been conducted. Before each activity, the instructor should carry out a visual inspection of the course to ensure there are no obvious impediments to normal operation.

For more details please see corresponding RA

**Emergency Management Procedure**

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| <b>A</b> | Assess situation, call emergency services, assist those in danger                                 |
| <b>E</b> | Evacuate students, staff and visitors, if appropriate   |
| <b>I</b> | Inform School Camp Leader onsite and off site, Camp Cooby Directors or Camp Manager if not onsite |
| <b>O</b> | Organise resources, advise parents  |
| <b>U</b> | Undertake recovery operations and return site to normal   |

**Risk Assessment**

Danger	Risk Description	Risk Level	Management Strategies	Residual Risk Assessment – after Management Strategies
<b>Environment</b>				
Sun Exposure	Sunburn Dehydration Heat Exhaustion/ Stroke	M	<p>Participants advised on appropriate clothing and equipment.</p> <p>Clothing with sleeves must be worn.</p> <p>Participants carry minimum of 3L water.</p> <p>Refill stops.</p> <p>Particular pointers to apply sunscreen to backs of hands and inside thighs. (recommended minimum +30)</p> <p>Regular rest stops.</p> <p>Encourage peer reminders and monitoring.</p> <p>Review weather conditions prior to the activity. <a href="http://www.bom.gov.au/qld">www.bom.gov.au/qld</a> . Or <a href="http://www.eldersweather.com.au/qld/darling-downs/geham">http://www.eldersweather.com.au/qld/darling-downs/geham</a></p> <p>Briefs and debriefs as well as team planning should be conducted in the shade where available.</p>	L
Winds	Falling branches Falling trees.	S	<p>Monitor winds before departure.</p> <p>Aggressive movement of trees nearby are an indication of thinking about strong management strategies or cancellation.</p> <p>No activity will take place during strong winds, or near dead trees, no pulling or swinging on trees. All dead trees &amp; fallen branches will be monitored in initiative area. All dead trees and branches deemed a risk will be removed from the area</p> <p>Review weather conditions prior to the activity. <a href="http://www.bom.gov.au/qld">www.bom.gov.au/qld</a> . Or <a href="http://www.eldersweather.com.au/qld/darling-downs/geham">http://www.eldersweather.com.au/qld/darling-downs/geham</a></p>	L

			Assess students' ability to cope with increasingly difficult wind conditions.	
Rain	Wet Equipment Hypothermia Slips and trips	S	<p>Review weather conditions prior to the activity. <a href="http://www.bom.gov.au/qld">www.bom.gov.au/qld</a> . Or <a href="http://www.eldersweather.com.au/qld/darling-downs/geham">http://www.eldersweather.com.au/qld/darling-downs/geham</a></p> <p>Pre-briefing and equipment list outlines appropriate clothing and wet weather gear.</p> <p>Participants are shown how to waterproof equipment.</p> <p>Group condition is monitored closely during wet weather.</p> <p>Group to be briefed on safe practice in wet conditions using extra caution.</p> <p>Students will wear firmly fitting, covered footwear with a non-slip sole.</p> <p>Participants will be instructed to be aware of the ground underfoot, &amp; to avoid walking on damp/wet areas &amp; to be aware of trees, branches &amp; brambles, &amp; not to run.</p>	L
Bushfire	Burns Smoke Inhalation Death	H	<p>Participants advised on appropriate clothing and equipment.</p> <p>Participants carry minimum of 3L water.</p> <p>Encourage peer reminders and monitoring.</p> <p>Review weather conditions prior to the activity. <a href="http://www.bom.gov.au/qld">www.bom.gov.au/qld</a> . Or <a href="http://www.eldersweather.com.au/qld/darling-downs/geham">http://www.eldersweather.com.au/qld/darling-downs/geham</a></p> <p>Aggressive heat waves are an indication of thinking about bush fire management strategies or cancellation.</p> <p>Fires may only be lit in specified areas.</p> <p>Fires should not be lit in windy conditions.</p> <p>Participants will be briefed on emergency procedures.</p>	L
Dead Trees	Impact Injuries	M	<p>Participants are briefed about the dead trees and the likelihood of tree fall if a hit.</p> <p>Area around ropes course / milk crate stack is cleared of overhanging trees and dead trees</p>	L
Steep Banks	Sprains & Strains	M	<p>Appropriate path ways are chosen to avoid any difficulties.</p> <p>Students will wear firmly fitting, covered footwear with a non-slip sole.</p>	L
Rubbish	Cut Feet Embedded Objects	S	<p>Participants are expected to wear closed in shoes at all times.</p>	L
Environmental Impact		M	<p>Participants are to be briefed on specific environmental factors that concern Cooby Dam.</p> <p>Ensure rubbish is 'carried out' of ropes course area following activity conclusion</p> <p>Ensure that the designated landing areas are used and no landing zones are observed.</p>	L

Wildlife		S	<p>Participants are expected to wear closed in shoes at all times.</p> <p>Appropriate pathways are chosen to avoid potential wildlife</p> <p>Participants will be instructed to be aware of the ground underfoot, &amp; to avoid walking through unmown areas &amp; to be aware of trees, branches &amp; brambles which may be home to various wildlife, &amp; not to run.</p> <p>pathways are kept clear and mowed to ensure all wildlife can be seen and avoided.</p> <p>Participants will be instructed to give all wildlife a wide berth to avoid injury.</p> <p>Staff will inspect all activity areas prior to use to ensure no wildlife is in close proximity.</p>	L
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People				
Poor belay technique	A student falls from height.	H	<p>Pre-activity planning will consider whether the planned challenge ropes course session matches the maturity and abilities of the group.</p> <p>Each participant / climber will be belayed via a donkey system, with a minimum of 4 belayers attached physically to the rope system via knots / carabiners</p> <p>Initial 2 metres of climbing height the group is to hold and pay attention to the climber throughout, as a fall from this height may result in the climber landing on the milk crates</p> <p>Belayers and observers will be briefed on their responsibilities and closely supervised by staff</p>	L
Poor Belay Technique	A student holds rope while belaying, climbing participant falls resulting in rope burn.	M	<p>Pre-activity planning will consider whether the planned challenge ropes course session matches the maturity and abilities of the group.</p> <p>Belayers and observers will be briefed on their responsibilities and closely supervised.</p>	L
Inexperienced	Poorly fitted harness, resulting in soft tissue or skeletal injury	S	<p>All participants will wear correctly fitted helmets and harnesses. These are to be checked at the start of the activity and throughout the activity, especially when a harness is removed or adjusted.</p> <p>Pre-activity planning will consider whether the planned challenge ropes course session matches the maturity and abilities of the group.</p>	L
Entrapment (equipment)	A student or staff member catches their hair, clothing or jewelry in equipment, causing injury or distress.	H	<p>Staff will advise students that jewelry and rings must not be taken or worn and suggest appropriate clothing (both in the pre-activity briefing and before the day of the activity).</p> <p>Staff will ensure that hair, clothing and jewelry are appropriately managed to avoid injury or mishap</p>	L
Fear / psychological damage	Student or staff freeze	H	<p>If a person freezes on a high element it is normally possible to talk them through.</p> <p>The participant always has the option of stopping and coming down wherever their comfort zone has been reached / exceeded.</p>	L
Inconsiderate Participants	Participants being inconsiderate of other participants resulting in soft tissue, skeletal or emotional injury / damage	M	<p>Participants will be briefed on the risks associated with the activity.</p> <p>Inconsiderate participants will be removed from the activity.</p> <p>Staff will ensure safety procedures are met and will cease any ideas which may result in a participant's safety being jeopardized.</p>	L
Allergies	Environmental triggers (pollens, dust)	H	<p>Check medical information, be aware of possible triggers.</p>	
Equipment				
Faulty	Faulty equipment could result in further damage to equipment and increase risk of incident,	H	<p>Staff will inspect all ropes and equipment before and after activity.</p> <p>All equipment use will be logged.</p> <p>All equipment will be used and maintained according to the manufacturer's recommendations.</p> <p>Camp Staff are responsible for set up and pack down of all High Ropes equipment.</p> <p>Personal protective equipment checked for correct fitting &amp; monitored throughout activity by the instructor</p>	L



Milk Crate Stack	Various injuries	M	Briefing & supervision – If appropriate lift participant up and remove milk crates rather than become unbalanced and falling.	L
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Consequence					
Likelihood	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (almost certain)	S	S	H	H	H
B (Likely)	M	S	S	H	H
C (Moderate)	L	M	S	H	H
D (unlikely)	L	L	M	S	H
E (rare)	L	L	M	S	S

**Risk Level**

H – High risk: e.g. likely or almost certain to occur, with at least moderate consequence – at least medical treatment required (See table below)

S – Significant risk

M – Moderate risk

L – Low risk

CONSEQUENCE RATING TABLE		
1	Insignificant	No injuries, No financial loss
2	Minor	First Aid treatment, Low financial loss
3	Moderate	Medical treatment required, Medium financial loss
4	Major	Extensive injuries, High financial loss
5	Catastrophic	Death, Major financial loss