

RISK ASSESSMENT		CHALLENGE ACTIVITIES		Ref No.	A09		
Baseline	<input checked="" type="checkbox"/>	Site Specific	<input type="checkbox"/>	Vulnerable Person	<input type="checkbox"/>	Temporary	<input type="checkbox"/>
Activity covered by this assessment:	Caving, Den Building, Low Ropes, Team Challenge			Hazard References: A09/01 – A09/04			
Assessors:	John Robson (Kingswood H&S Advisor)		Reviewers:				
References:	Challenge Activities BRA, issued February 2010 (withdrawn)						
Date of issue:	31 January 2012		Planned review date:	End January 2013			

#### HAZARDS

Hazard Ref.	Hazard description	Activities giving rise to risks	Control Measures	
			Static	Dynamic
A09/01	Caving – Facility	Locked or jammed escape hatches delaying evacuation or causing panic.	S080	D074
		Individuals outside the cave falling through unguarded escape hatches causing cuts, bruises, sprains or fractures.	S079	
		Low ceilings in cave tunnels causing banged heads.	S077, S083	D080
		Stale air in little used or dead-end tunnels.	S081	
		Wear and deterioration of the structure over time, or sustained neglect, causing structural failure.	S078, S082, S083	
		Unsupervised access to the facility.	S079	D074, D078
A09/02	Caving – General participation	Participants can suffer achluophobia (fear of darkness) or claustrophobia (fear of enclosed spaces), and be sufficiently anxious to not want to participate in the activity at all, or wish to finish the activity early.	S084	D013, D075, D076, D077
		Collision with other participants in close proximity causing kicks, cuts, bruises, grazes or banged heads, or have sand kicked up in to their eyes.		D008, D055
		Contact with or entanglement in parts of the cave's internal features causing cuts, bruises or grazes.	S083	D024, D076
		Participants getting stuck inside narrow parts of the cave.	S086	D077
		Crawling on the ground through tunnels causing grazed or cut knees, elbows or palms, and dirty hands.	S087	D022, D064
		Puddles of water forming after heavy rain may expose participants to waterborne infections, particularly if the water has been allowed to stagnate.	S074	
		Participants being accidentally locked inside the cave.	D078	
A09/03	Den Building	Participants being hit by apparatus moved during the activity such as tyres, planks, or poles causing cuts, grazes and bruises.	S088	D065
		Sitting or crawling on the ground and handling construction materials such as poles and logs. This can lead to grazed or cut knees, elbows or palms, and dirty hands.		D022
		Shelters may collapse during or after construction causing cuts, grazes, bruises or head injury to participants inside.		D079
		Slips, trips and falls on uneven or heavily used surfaces causing bruises, grazes, sprains, strains and occasional broken bones.	S089	D008
		Contact with thorny or stinging vegetation.	S089	
A09/04	Low Ropes and Team Challenge – Apparatus design, construction and use	Wear and deterioration of apparatus over time causing structural failure.	S070	D013
		Collision with other participants in close proximity causing kicks, cuts, bruises, grazes or banged heads.		D055, D065
		Balancing on and falling from low level apparatus such as logs or beams, causing bruises, grazes or fractures.	S076, S077	D008, D022, D080, D059
		Slipping on apparatus during wet weather causing bruises, grazes or fractures.	S072	D060
		Entanglement of long hair, large or prominent jewellery or loose clothing on course apparatus.		D024
		Lifting of participants on some elements risks falls and manual handling injuries for those taking part.	S076, S077	D069, D070, D080

#### RISK ANALYSIS

Ref	Hazard	Who may be harmed	Likelihood	Severity	Risk
A09/01	Caving – Facility	Participants, Teachers, Instructors, Public	Low	Serious	Acceptable
A09/02	Caving – General participation	Participants, Teachers, Instructors	Low	Minor	Acceptable
A09/03	Den Building	Participants, Teachers, Instructors	Low	Minor	Acceptable
A09/04	Low Ropes and Team Challenge – Apparatus design, construction and use	Participants, Teachers, Instructors, Public	Low	Serious	Acceptable

## RISK CONTROL

Control Ref.	Static Risk – Operational Controls
S070	The activity apparatus must be of solid construction and subject to 4 weekly and annual inspection. Repair or replacement of components should be undertaken as necessary.
S072	Wooden components across which participants must walk that are liable to become slippery must be provided with an appropriate textured surface to minimise the risk of slipping.
S074	Hollows in which water may collect should be filled in, and persistent puddles drained regularly.
S076	On elements where participants may be lifted more than 50cm from the ground, an impact absorbing surface must be installed beneath and around the element.
S077	Helmets are subject to 4 weekly inspection and repaired or replaced as necessary.
S078	The caving activity must take place in a structure designed, built or modified and used exclusively for such purpose
S079	Escape hatches must be able to support the weight of someone stepping on them. If they are left open, the top of the cave should be cordoned off or warning signs erected.
S080	All escape hatches must be opened each week to check their operation.
S081	Ventilation systems should be built in to the cave facility where there is the possibility for stale air to accumulate. When possible, the cave should be 'aired' by opening all the access doors and hatches and allowing fresh air to circulate.
S082	The cave structure must be checked by an engineer on an annual basis with remedial and preventative works undertaken as necessary.
S083	Internal features installed in the cave must be firmly affixed and not offer the opportunity for participants to collide heavily with them or become entangled in them. Internal features should be checked on a 4 weekly basis with remedial and preventative works undertaken as necessary.
S084	Explanation, demonstration and ongoing coaching are to be provided by 2 instructors trained in activity core skills and who are familiar with the caving session plan. The instructors can supervise up to 16 active participants between them participants (15 students + 1 teacher). An additional Adult is required for caving.
S085	Lamps, battery packs and belts are subject to weekly inspection and repaired or replaced as necessary.
S086	Entrances to the cave must be no larger than the smallest emergency exit. Where this is not possible a 'test tunnel' should be provided that is no larger than the smallest emergency exit.
S087	Sharp or abrasive sections of the floor surface should have a covering of smooth sand.
S088	Explanation, demonstration and ongoing coaching are to be provided by an instructor trained in activity core skills and who is familiar with the activity session plan. Each instructor can supervise up to 16 active participants (15 students + 1 teacher).
S089	Den Building should take place in an area designated for the purpose that avoids slip and trip hazards and areas of thorny or stinging vegetation.

Control Ref.	Dynamic Risk – Instructor Controls
D008	Check that all participants are wearing low heeled or flat shoes.
D013	Check the condition of activity area and equipment before you begin using it, and report defects that arise during the activity.
D022	Check that all participants are wearing long sleeves and long trousers.
D024	Check that long hair is gathered up and tucked away, large or prominent jewellery and neckwear is removed and large pocket items are removed.
D055	Brief participants to be aware of who is around them and give each other space to avoid being hit or kicked by equipment or other participants.
D059	Explain and demonstrate appropriate spotting techniques and position yourself so as to lend support to participants on off-ground elements as necessary.
D060	Limit access to slippery sections if, in your opinion, it is too slippery to continue safely.
D064	Ensure all open cuts are covered with a dressing to prevent infection, and that participants wash their hands after the activity.
D065	Brief participants to be vigilant of their surroundings and each other and explain any special requirements for particular elements or pieces of equipment.
D069	Ensure participants who are lifted or carried are supported by sufficient people to prevent them falling. Position yourself to lend assistance if required. Stop lifting and carrying that you do not consider safe.
D070	No participant is to attempt to lift another participant on their own.
D074	Check that all emergency exits are unlocked at the beginning of the activity and locked again at the end of it.
D075	Brief participants that there will be multiple lights in the cave, that there are emergency exits to reach the outside quickly and that they will never be left on their own.
D076	Check that participants' belts, battery packs and power leads are fitted correctly and lamps work before entering the cave.
D077	Reassure participants that the entrance/test tunnel is the smallest part of the cave through which they will pass.
D078	Conduct a headcount to ensure all participants are out of the cave before closing and locking access points.
D079	Monitor the construction of each shelter carefully, and refuse participants entry if, in your opinion, it is not sufficiently well designed or constructed, and is liable to collapse.
D080	Give every participant a helmet before beginning the activity, and check that it is fitted correctly. A full turban is an acceptable alternative, but be careful of loose cloth becoming entangled in equipment or apparatus.