



Beaundesert Outdoor Adventures

Standard Operating Procedure (SOP) & Risk Assessment: Caving Simulator

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Effective Date: January 2026

Review Date: January 2027

1.0 Purpose

To outline the standardized and safe procedure for conducting sessions in the Caving Simulator. This document ensures a high-quality, emotionally safe, and physically secure experience while introducing participants to the concepts of confined space exploration.

2.0 Scope & Instructor Competence

This SOP applies to all staff and participants utilizing the Caving Simulator.

- **Technical Advisor (TA):** Martin Kirby (Operations Manager approval for in-house trainers).
- **Authorisation:** Instructors must be "In House Trained and Assessed" under a scheme approved by the TA.
- **Training:** Instructors must have completed practical incident scenarios (panic attacks, perceived entrapment, and evacuation, particularly between the fake sump and the ramp).

3.0 Location & Ratios

3.1 Location

- **Location:** Southeast Corner of the Walled Garden.
- **Access Control:** The cave structure must be **locked with a padlock** when unattended to prevent unauthorized access.





3.2 Ratios

- **Standard Ratio:** 1:12 (One Instructor to twelve participants).
- **Maximum Group Size:** 12 participants without additional adult supervision.

4.0 Equipment

- **Helmets:** Appropriate climbing/caving helmets must be worn at all times inside the simulator.
- **Torches:** Headtorches must be attached to the helmets and checked to ensure they are working. Participants may use their own suitable torches.
- **Clothing:**
 - Long trousers and long sleeves are mandatory.
 - Suitable footwear (trainers, walking boots, or wellingtons).
 - Beaundesert provides a range of 'boiler suits' (overalls) if participants are unsuitably dressed.
- **Jewellery:** Instructors must ensure guests remove all jewellery that poses a hazard. Those who cannot/will not remove hazardous jewellery must not participate.

5.0 Safety Briefing & Rules

Mandatory briefing before entering the simulator.

1. **Headcount:** A strict roll call/headcount must be taken before anyone enters.
2. **The Buddy System:** Participants must explore in pairs (or groups of 3). Never alone.
3. **Movement:**
 - Crawl or scramble; **do NOT** climb on the walls.
 - Always go down slopes **feet first**.
 - Beware of low ceilings and the likelihood of bumping heads.
4. **Emergencies:**
 - Point out the Escape Exits.
 - Explain how to get help if someone is stuck or scared (e.g., buddy stays, other buddy goes for the instructor).
5. **Hygiene:** Emphasize the importance of washing hands immediately after the session.



6.0 Session Procedure

6.1 Pre-Session Checks

- **Structure:** Visually inspect the cave structure for rot or damage since the last session.
- **Interior:** Check the interior tunnels for left-behind debris, litter, or hazards.
- **Features:** Check the ball pit under the tube is clear of foreign objects.
- **Equipment:** Ensure all headtorches are working.

6.2 Activity Management

1. **Briefing:** Deliver the safety briefing and set the objective (e.g., find the cave painting, use the map).
2. **Supervision:**
 - The instructor should primarily supervise from outside the cave or in the main chamber, allowing the participants to explore independently.
 - Where possible, utilize visiting staff inside the cave to help manage the group.
 - The instructor must remain constantly aware of potential entrapment or hypothermia (if cold/wet) issues.
3. **Entry/Exit:** Monitor the flow of participants to prevent bottlenecks.

6.3 Session Conclusion

1. **Final Headcount:** A strict roll call must be taken to ensure no one is left inside the cave.
Do not leave anyone in the cave!
2. **Hygiene:** Remind the group to wash their hands.
3. **Secure:** Lock the gate with the padlock to prevent unauthorized use.

7.0 Emergency & Incident Procedure

1. **Panic Attack / Claustrophobia:**
 - Locate the participant quickly using the nearest Escape Exit.
 - Reassure them verbally before physical contact.
 - Guide them out via the shortest/widest route.
2. **Perceived Entrapment:**
 - Usually, participants are not physically stuck but cannot figure out the manoeuvre.
 - Instructor enters the cave to coach them through the movement or assist them in reversing out.
3. **Evacuation:** In the event of a structural issue or fire alarm, the instructor must use all Escape Exits to clear the simulator immediately.

8.0 Risk Assessment

Activity: Caving Simulator

Review Date: January 2027

Assessment by: Martin Kirby – Operations Manager

What are the hazards?	Who might be harmed?	Controls: What are you doing to control hazards?	Risk Rating (with controls)
Structural Failure	Participants, Instructor	<ul style="list-style-type: none"> • Checks: Annual check by maintenance, periodic 2-month checks, daily pre-use visual check by instructor. 	Trivial
Locked Inside (Left Behind)	Participants	<ul style="list-style-type: none"> • Headcount: Strict roll call/headcount at the start AND end of every session. 	Trivial
Slips, Trips & Falls	Participants	<ul style="list-style-type: none"> • Briefing: Slopes must be navigated feet first. • Equipment: Headtorches used for visibility; appropriate footwear required. 	Tolerable
Head Injuries	Participants	<ul style="list-style-type: none"> • PPE: Helmets mandatory at all times. • Briefing: Warned about low ceilings. Impact speed is generally low while crawling. 	Trivial
Cuts & Bruises	Participants	<ul style="list-style-type: none"> • Clothing: Long sleeves and trousers mandatory. Boiler suits provided if needed. 	Trivial
Panic Attacks & Entrapment	Participants	<ul style="list-style-type: none"> • Training: Instructors trained in confined space incident management and first aid. • Escape Routes: Multiple escape hatches built into the design. 	Trivial
Unauthorized Access	Public	<ul style="list-style-type: none"> • Security: Cave locked with a padlock when unattended. 	Trivial



10.0 Document Control & Review History

Document Creation

Action	Name / Role	Date
Created By	Martin Kirby – Operations Manager	January 2026
Approved By	Martin Kirby, Luke Chance & Oliver Tombs (OM / SI / AOM)	January 2026
Technical Auth.	Martin Kirby (Technical Advisor)	January 2026

Review Log

This document is to be reviewed annually or following any significant incident or change to the activity.

Date of Review	Reviewed By	Comments / Changes Made	Next Review Due
January 2026	MKirby / OTombs / LChance	Document Created (V1.0). Added specific Walled Garden location, ball pit check, and padlock requirement.	

