



Beaude Desert Outdoor Adventures

Standard Operating Procedure (SOP) & Risk Assessment: Bushcraft – Fire lighting

Document ID: SOP-BOA-FIRE-001

Effective Date: February 2026

Review Date: February 2027

1.0 Purpose

To outline the standardized and safe procedure for conducting Fire lighting and basic campfire cooking sessions. This activity teaches fundamental survival skills (the fire triangle, friction fire, flint & steel) and provides a safe, controlled environment for cooking simple campfire snacks.

2.0 Scope & Instructor Competence

This SOP applies to all instructors and participants engaging in Fire lighting activities.

- **Technical Advisor (TA):** Martin Kirby (Operations Manager).
- **Authorisation:** Instructors must be "In House Trained and Assessed" under a scheme approved by the TA.

3.0 Location & Ratios

3.1 Locations

Sessions may take place in the following designated areas:

- **The Bushcraft Area:** Located down the Southeast side of the Walled Garden.
- **The Barbeque Shelter:** Located outside Reception. *Note: When using benches in this shelter, a clear access/escape route must be maintained at all times. The raised fire pit here is ideal for demonstrating small fires and cooking.*
- **Reception Campfire Area:** Features a main central fire pit and 5 sunken slabs designed for small group fires.





3.2 Ratios

- **Standard Ratio:** 1:12 (One Instructor to twelve participants).
- **Maximum Group Size:** 12 participants per instructor.

4.0 Equipment & Clothing

- **Clothing Mandatory:** Long trousers and long sleeves are highly recommended. **Long hair must be tied back.** Any loose clothing, lanyards, or tassels must be secured away to prevent catching fire.
- **Safety Equipment:** A bucket of water **must** be present in the immediate activity area before any sparks are struck.
- **Cooking:** Packet food opened on the day only (marshmallows, popcorn).
- **Knives:** Knife use is strictly limited to Instructors only (e.g., for prepping bow drills).

5.0 Age-Specific Session Structure

5.1 Under 10 Years Old (Demonstration & Close Supervision)

- **Format:** Predominantly "Demonstration Based."
- **Activity:** Participants may light cotton wool using flint & steels and attempt the bow drill under direct supervision.
- **Fires:** Participants do not build/manage their own sustained fires. The instructor manages a central fire for toasting marshmallows.

5.2 10+ Years Old (Small Group Fires)

- **Format:** Practical application.
- **Activity:** Participants work in small groups (3-4 people) to build and light fires on the 5 sunken slabs (Reception area) or within designated areas (Bushcraft area).
- **Supervision:** Supervised by the instructor and visiting leaders moving between the small groups.

6.0 Safety Briefing & Rules

Mandatory briefing before any fire lighting commences.

1. **Fire Behaviour:** Explain the "Drop & Roll" technique in case clothing catches fire. No running or playing near the fire areas.
2. **Safe Marshmallow Toasting:**
 - Do not wave toasting forks around (hot sugar/metal hazard).



- If a melting marshmallow droops or falls off the stick, **do not try to catch it**. Let it fall into the fire.
 - Once toasted, allow the marshmallow to cool for **at least 30 seconds** before touching or eating it to prevent severe lip/mouth burns.
3. **Popcorn Making (Makeshift Cooker):**
- When using the "two sieves on a stick" method, participants must be warned that the metal sieves will become extremely hot. Only hold the wooden handle.
4. **Bow Drills:**
- Maintain proper body positioning. The wooden drill can "ping" out of the bow under tension; keep faces clear.

7.0 Specific Equipment Procedures

7.1 Kelly Kettles (If used)

- The rubber/cork bung **must be removed** before boiling water.
- The chimney funnels intense heat. Only experienced users/instructors should add wood down the top funnel.
- Only the instructor may move the kettle off the fire (leather gloves recommended).

7.2 Session Conclusion

- **Extinguish:** All fires must be fully put out with water until cold.
 - **Clean Up:** Ash should be swept/moved away and left tidy. Refill water buckets for the next session.
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8.0 Risk Assessment

Activity: Fire lighting & Campfire Cooking

Review Date: February 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)
Burns from Fire / Embers	Group	<ul style="list-style-type: none"> • Rules: No playing/running near fire. Drop & Roll briefed. • Safety Kit: Water bucket / Bottle present at all times. • Clothing: Long hair tied back; loose clothing secured. 	Trivial
Burns from Food (Marshmallows)	Group	<ul style="list-style-type: none"> • Briefing: Strict 30+ second cooling rule before eating. • Rule: "Do not catch falling marshmallows." No waving forks. 	Tolerable
Burns from Metal (Sieves/Kettles)	Group	<ul style="list-style-type: none"> • Popcorn: Warn group that metal sieves get extremely hot. • Kelly Kettles: Instructor only to move kettles. Leather gloves recommended. Bung must be removed. 	Tolerable
Injury from Bow Drill	Group	<ul style="list-style-type: none"> • Instruction: Proper body positioning taught to avoid contact with the wooden drill if it releases from the bow. 	Tolerable
Improper Knife Use	Group	<ul style="list-style-type: none"> • Rule: Knife use is limited strictly to instructors for prepping materials. 	Trivial
Splinters / Nails	Group	<ul style="list-style-type: none"> • Briefing: Be careful when handling gathered wood. First aider on site. 	Trivial
Poor Food Hygiene	Group	<ul style="list-style-type: none"> • Control: Use simple packet food (marshmallows/popcorn) opened on the day. Handwashing encouraged before eating. 	Trivial
Entrapment (BBQ Shelter)	Group	<ul style="list-style-type: none"> • Layout: When benches are used in the BBQ shelter, a clear, unobstructed escape route must be maintained at all times. 	Trivial



10.0 Document Control & Review History

Document Creation

Action	Name / Role	Date
Created By	Martin Kirby – Operations Manager	February 2026
Approved By	Martin Kirby, Luke Chance & Oliver Tombs (OM / SI / AOM)	February 2026
Technical Auth.	Martin Kirby (Operations Manager)	February 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
February 2026	MKirby / OTombs / LChance	Document Created (V1.0). Consolidated previous Fire & Kelly Kettle RAs. Added specific Marshmallow/Popcorn safety and BBQ Shelter escape routes.	February 2027

