

Normal Operating Procedure (inc. Risk Assessment) Catapults

This document should be read in conjunction with PGL's General Delivery NOP and the ACOP

Risk Profile

The following risks have been identified through PGL's risk assessment process:

- a. Equipment Failure Shock chords and wooden beams
- b. Extreme Weather
- c. Entrapment of hair, fingers, loose clothing & jewellery
- d. Slips/trips/falls
- e. Injuries when lifting, moving and carrying equipment
- f. Injury from being hit by the equipment being fired
- g. Injury from participation/physical exertion
- h. Fatigue/exhaustion/dehydration

Implementation of the following operating procedures reduces the residual risk to a level as low as reasonably practicable given the intended purpose of the activity.

Control Measures

Deployment Requirements

Instructor Qualifications: In house trained

Instructor - Participant ratio: 1:30

Total group size: 1:30

Active participation: 1:30

1. Equipment Requirements

Per Activity Base:

- 4 x large circular beams of wood
- 8 x long thin round beams of wood
- 16 x lashes of rope
- 2 x bungy sling shots
- 4 x tennis balls

Additional equipment:

- Bean bags
- Water balloons
- Hoops

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2. Specific Clothing Requirements

- Closed- toe footwear
- Jewellery removed with long hair tied back and out of the way
- Shorts or trousers covering the knee

3. Session Preparation

- The instructor must check the activity area, and all equipment to be used and ensure all components are both present and safe to use.
- All equipment must be inspected to be fit for use. In particular the bungy cords for any wear or fraying.
- Any faulty equipment should not be used.

4. Session Instruction

- Have participants carry all logs safely to area. Ensure that both ends of logs and poles are held by participants.
- Distribute ropes and poles. Bungy cords should not be provided to participants until all groups are finished construction.
- Brief groups on correct lashing techniques and where necessary correct poor lashings during construction to prevent catapult failure.
- Instruct/ demonstrate to the participants clove hitch knots, square lashing and figure 8 lashing techniques.
- Using the guide sheets provided groups construct the frame of the catapults.
- Once all frames are constructed inspect each for sturdiness and adjust lashings as necessary.
- Instruct participants they are always to stand behind catapults during firing. Mark a line 3m behind catapults on the ground with a rope.
- Attach bungy cord slings and demonstrate safe techniques to draw and fire. Hands cradle ball from above and below ball, not from the sides.
- One participant from each catapult group is to approach the catapult and fire.
- When all balls are used, participants can gather balls. Ensure catapults are supervised to prevent any firing when participants are gathering the balls.
- Ensure no one approaches catapults while anyone is in front of the catapults.
- Upon completion of the activity all equipment is to be returned and stored following the above safety considerations.
- Inspect all equipment as it's returned, especially the bungy cords.

5. Session Development

- Show the group how to tie the correct knot and then explain that a catapult is to be made, do not hand out the instructions at the beginning and let them discovery learn to begin with.
- Only allow one participant to see the instruction sheet and have this participant describe the construction steps to the other group members.

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- Tell participants that they will be swapping to a different catapult each round therefore they are responsible for the construction of all the catapults.
- Instruct a small group of participants in lashing techniques prior to the activity and have these participants become responsible for instructing others in lashing.
- Place all the equipment in one pile. Tell the group their mission is to construct 2 functioning catapults. Have the groups then construct the catapults, groups are led to realise that to begin the activity they need to equally distribute all equipment and work as a whole group as well as a subgroup.
- Tennis balls, water balloons, bean bags can be used as firing objects.
- Milk crates, hoops, archery targets, wooden blocks, empty bins can be used as the target.
- The targets can be move closer or further away as a development.

6. Session Conclusion

- a. The instructor must ensure that the activity area is left clear and in a safe condition.
- b. A review of the session must take place, fitting the group's needs.
- c. The instructor must ensure that unauthorised/unsupervised access to the Catapults is prevented
- d. Any faults/concerns with the structural integrity should be reported to a senior member of staff
- e. Any relevant accidents/incidents/events must be recorded on the relevant report form or centre logbook

FOR CENTER USE ONLY:

The risk assessment procedure has been completed by:

DATE	PRINT NAME	SIGNATURE

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