

Survival Shelters:

KS2 D&T Workshop

An outside teamwork challenge exploring the key features of Army shelters, pupils have a chance to build their own shelter in the museum grounds. All shelters will be tested with water with the pupils inside. An optional worksheet to help focus on key design elements is available. This workshop is about the basics of Army bivouacking and is a fun team-building task.

Session Outcomes

All: Understand the role of shelters and why the Army (or any other people) need shelters. To work as a team to build their own shelter.

Most: Be able to identify the components of shelters (canvas, poles etc) and use this knowledge to contribute to the team effort in building their own shelter.

Few: Be able to make comparisons between different types of shelter and select the best properties that can be used in building their own team shelter.

Sample Timetables

Timetables can be tailored to suit your classes requirements, please talk to our Education Officer for more details.

One class timetable (maximum of 34 pupils plus adults)

Time	Duration	Task
9:45 - 10:00	15 min	Arrival, cloakroom and toilet visit
10:00 - 10:20	20 min	Brief by museum staff member
10:20 - 10:40	20 min	Frame Tent
10:40 - 11:00	20 min	Bivouac
11:00 - 11:10	20 min	Planning
11:10 - 11:40	30 min	Build
11:40 - 11:55	15 min	Test & evaluate
11:55 - 12:00	5 min	Tidy
12:00 - 12:30	30 min	Lunch*
12:30 - 1:45	75 min	Explore the museum with curricula quiz in groups*
1:45 - 2:00	15 min	Depart and goodbye*

*optional extra, time can be adjusted to suit your class requirements.

Two class timetable (maximum of 68 pupils plus adults)

Time Team A	Tasks Team A	Task Team B	Time Team B
9:45 - 10:00	Arrival, cloakroom and toilet visit		9:45 - 10:00
10:00 - 10:20	Brief by museum staff member		10:00 - 10:10
10:20 - 10:40	Frame Tent	Self led exploration of the museum with a curricula quiz. Also optional visit of memorial gardens in museum grounds.	10:20 - 11:55
10:40 - 11:00	Bivouac		
11:00 - 11:10	Planning		
11:10 - 11:40	Build		
11:40 - 12:00	Test & evaluate		
12:00 - 12:30	Lunch		12:00 - 12:30
12:30 - 14:20	Self led exploration of the museum with a curricula quiz. Also optional visit of memorial gardens in museum grounds.	Frame Tent	12:30 - 12:50
		Bivouac	12:50 - 13:10
		Planning	13:10 - 13:20
		Build	13:20 - 13:50
		Test & evaluate	13:50 - 14:10
14:20 - 14:30	Depart and goodbye		14:10 - 14:30

Suggested Schedule

Briefing (20 min)

Firstly introduce who I am and what the museum is. This would be then followed by a safety announcement. Explain what the workshop is about and what they will be achieving. Hand out challenge sheets and pencils. Finally spend a few minutes discussing the challenges of Shelters in the Army; pupils begin to fill in their sheets to help them focus on the topic of D&T and Army Shelters.

Frame Tent (20 min)

Pupils will examine and discuss the frame tent's uses, advantages and disadvantages. Pupils will sketch the tent, label the parts and are invited to suggest improvements to the tent's design.

Bivouac (20 min)

The pupils will explore a bivouac shelter. We will discuss with the pupils the bivouac's uses, advantages and disadvantages. Pupils will sketch the bivouac, label the parts and are encouraged to suggest improvements to the bivouac's design.

Planning (10 min)

Divide into groups of 3-4 pupils. Introduce their final task, building a shelter. Give them the aim; to be waterproof and to fit the whole team. Give them their constraints, they only have 30 minutes, they only have a few resources (Sheet, poles, scissors, tape and string). On the final page of their challenge sheets they have a few minutes to plan to help them focus.

Build a Shelter (30 min)

Split into small groups, the pupils locate a spot to build and hopefully execute their plan. Museum staff are to encourage modifications if they are needed.

Test and evaluate (20 min)

The shelters are then tested with a watering can, with them inside! Each team are to summarise best bits and what needs to be improved after the test. Before any winning team is announced, each team need to sensibly de-construct the shelter.

Curriculum areas**KS2 Design and Technology:**

Design: Research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, and communicate their ideas through discussion and annotated sketches.

Make: Select from and use a wider range of materials and components to perform practical tasks.

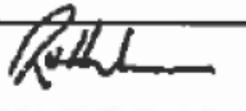
Evaluate: Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Technical knowledge: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Risk Assessment - Advisory Document

MOD Form 5010a
Introduced April 2008

MOD Risk Assessment Form

Establishment /Unit/Ship:	REME Museum	Assessment No:		Assessment Date:	27/01/2016
Section/Department:	Education	Assessment Type (Delete as appropriate; see Note 1)			
		Specific X	Generic	Record of Dynamic Assessment	
Activity/Process:					
<p>KS2 Shelters workshop. This workshop examines shelters used within the Army. The workshop is divided into 3 activities:- Activity 1 – 9 x 9 tent. Session leader discusses the tent's uses, advantages and disadvantages. Pupils carry out annotated sketches of the tent and have a chance to see the interior of the tent. Activity 2 – Basha/bivuoac. Pupils watch the session leader set up a basha/bivuoac. The shelter's uses, advantages and disadvantages will be discussed. Pupils carry out annotated sketches of the tent. Pupils are invited to demonstrate use to rest of the class. One pupil is invited to sit in the folded basha/bivuoac while 6 other pupils carry the weight of the pupil (the basha/bivuoac serves a dual purpose as a stretcher). Activity 3 – Build a Shelter. Pupils are split into small groups and challenged to build their own shelter capable of sheltering their whole team from rain, wind etc. Pupils use their new knowledge of Army shelters to design and build their own shelter using the resources provided. Resources include three 6 ft ash poles; plastic sheeting; string; tape and scissors. The shelters are tested at the end of the workshop using a watering can.</p>					
Assessor					
Name:	Juliet Turk	Line Manager Acceptance (See Note 2)			
Rank/Grade:	Assistant Curator/Health & Safety Representative	Name:	Major (Ret'd) Rick Henderson		
Signature:		Rank/Grade:	Museum Director		
		Signature:			

Hazards (Include Hazard Survey Number where applicable)	Who is at Risk?	Control Measures (Specific existing Control Measures)	Risk Rating (Likelihood X Consequence) (See Note 3)	Additional Controls (Each Control Measure is to be specific and managed)	Residual Risk Rating (See Note 4)	Management Plan		
						Owner	Target Date	Comp Date
Razor wire – top of fence. Risk of cutting hand/finger. (Only applicable when in museum grounds)	Pupil	Verbal warning before session Supervision by teachers Supervision by workshop leader	1x1 = 1		1			
Demonstrating and showing interior of tent Risk of hitting head and tripping	Pupil	Verbal warning before session Supervision by teachers Supervision by workshop leader	1x1 = 1		1			
Pupils demonstrating secondary use of the basha/bivuoac as a stretcher Risk of injury to head and body	Pupil	Verbal warning before session Supervision by teachers Supervision by workshop leader	1x1 = 1		1			
Tent pegs (9 x 9 tent and basha/bivuoac) Risk of tripping	Pupil	Verbal warning Supervision by teachers Supervision by workshop leader	1x1 = 1	High visibility mine tape around tent pegs	1			
Ash poles Risk of injury to head and body	Pupil	Verbal warning Supervision by teachers Supervision by workshop leader	1x1 = 1		1			
Plastic sheeting Risk of suffocation	Pupil	Verbal warning Supervision by teachers Supervision by workshop leader	1x1 = 1	Use of thick plastic	1			
Scissors Risk of cutting hand/finger	Pupil	Safety scissors used Supervision by teachers Supervision by workshop leader	1x1 = 1		1			

Bungees (used for erecting basha/bivouac) Risk of suffocation Risk of injury to eyes, head and body	Pupil	Supervision by teachers Supervision by workshop leader	1x1 =1	Erected at distance from pupils (warn pupils to take several steps back)	1			
String (lashings) Risk of tripping	Pupil	Verbal warning Supervision by teachers Supervision by workshop leader	1x1 =1	High visibility mine tape around tent pegs Encourage use of shorter lengths of string	1			

Line Manager Assessment Review (See Notes 2 and 5)							
Review Date:		Review Date:		Review Date:		Review Date:	
Name:		Name:		Name:		Name:	
Rank/Grade:		Rank/Grade:		Rank/Grade:		Rank/Grade:	
Signature:		Signature:		Signature:		Signature:	

Notes:

- 1 If using a 'Generic' risk assessment, Assessors and Line Managers are to satisfy themselves that the assessment is valid for the task and that all significant hazards have been identified and assessed. If additional hazards are identified they are to be recorded and attached to the Generic assessment.
- 2 Line Managers are to note that they are responsible for production of the risk assessment and that they are signing to indicate that the risk assessment is suitable and sufficient and they consider the risks to be acceptable.
- 3

High	Common, regular or frequent occurrence.	3	3 Med	6 High	9 High
Medium	Occasional occurrence.	2	2 Low	4 Med	6 High
Low	Rare or improbable occurrence.	1	1 Low	2 Low	3 Med
Risk Matrix Likelihood X Consequence			1	2	3
			Minor injury or illness.	Serious injury or illness.	Fatalities, major injury or illness.
			Low	Medium	High

When recording the Risk Rating ensure that both the Likelihood and Consequence scores are included.

High	Improve control measures; consider stopping work. Conducting work at this level of risk is to be reported up the Line Management / Command chain.
Medium	Review control measures and improve if reasonably practicable to do so, consider alternative ways of working.
Low	Maintain control measures and review if there are any changes.

- 4 Record the residual Risk Rating to demonstrate that the risk has been reduced to an acceptable level; record Likelihood and Consequence scores.
- 5 Risk Assessments are to be reviewed:
 - Annually.
 - If there is reason to doubt the effectiveness of the assessment.
 - Following an accident or near miss.
 - Following significant changes to the task, process, procedure or Line Management.
 - Following the introduction of more vulnerable personnel.
 - If "Generic" prior to use.