



RISK ASSESSMENT FORM

Prehistoric Smelting /Casting demonstrations & workshops from Ancientcraft

Activity

A controlled Prehistoric casting and smelting talk, demonstration/workshop by an expert (Ancientcraft) in an enclosed space, observed by an audience of members of the public.

Main Risks

1. There is a risk to the audience of cuts and/or splinters by touching replica Prehistoric items that are made of wood, leather and metal
2. There is a risk of molten metal, furnace or hot tools burning skin, eyes or hair of demonstrator or audience.
3. There is a risk of audience members/demonstrator inhaling smoke from the furnace.
4. There is a risk of uncontrolled fire originating from the furnace.

Mitigation

1. There will be a first aid kit present and contact details for the nearest A&E Unit
2. The audience will be kept at a distance of at least 3m from the demonstrator, while the demonstration commences. The crafting area will be clearly marked out.
3. The demonstrator (while the demonstration commences) MUST wear protective PPE safety goggles during demonstrations. A leather apron, gloves, long sleeves/trousers and steel toe capped boots must be worn during metal working demonstrations.
4. Any member of the audience at a distance of more than 3m from the demonstrator (while the demonstration commences) will be warned/advised on where and where not to stand and/or watch and what is a safe distance.
5. The audience will be warned/advised NOT to touch any metal working tools while the demonstration commences.
6. The audience will be warned/advised NOT to touch any item of replica items and artefacts without express permission from Ancientcraft/on-duty teacher/event sponsor.
7. The demonstration area will be clear of flammable objects, a bucket of both water and sand will be close by in the unlikely event of an uncontrolled fire.

No.	Hazard identification	Hazard type	Risk	Risk group	Impact (1-5)	Likelihood (1-5)	Control/mitigation	Risk level (1-5)
1	Molten metal	Burns to skin, eyes or hair. Damage to property.	Molten metal in the crucible will be poured into a mould. The metal will be around 1000 degrees C. It can drip or run if spilled.	Demonstrator	4	2	Extra care will be taken when moving crucible to mould. PPE safety goggle, gloves, leather apron, long sleeves/trousers and steel toe capped boots will also be worn.	2
				Audience	4	1	Audience will remain at a safe distance from the working area outside of a clearly marked enclosure	1
				General public	4	1	General public will be unable to enter to demonstration space so will be at a safe distance.	1
2	Fire	Burns, damage to property	The furnace will reach temperatures of over 1000 degrees C in a secure container. Burning charcoal or molten metal could cause uncontrolled fire if contact is made outside the demonstration space.	Demonstrator	4	2	Appropriate safety clothing will be worn (outlined above). The demonstration space will also be clear of flammable objects. A bucket of sand and water will be within the demonstration space to extinguish any fire that occurs.	1
				Audience	4	1	The audience will be outside of the demonstration space. A bucket of sand and water will be on hand to extinguish any fire.	1

				General public	4	1	The general public will be outside of the demonstration space. A bucket of sand and water will be on hand to extinguish any fire.	1
3	Smoke	Smoke inhalation	Smoke from the furnace may be inhaled and cause breathing problems	Demonstrator	3	2	Very limited smoke is produced by the charcoal. The furnace will only be used in an outdoors space to prevent a build-up of smoke. Any smoke would be dispersed by wind.	2
				Audience	3	1	Audience will be far enough to not come into contact with much concentrated smoke.	1
				General public	3	1	General public will be far enough to not come into contact with much concentrated smoke.	1
4	Hot tools and equipment	Burns to skin, hair and eyes. Damage of property	Tools and equipment used can be extremely hot. They will cause severe burns if handled without safety equipment.	Demonstrator	4	2	Demonstrator will wear safety equipment (outlined above) and cool tools in cold water where necessary.	2
				Audience	4	1	Audience will not be allowed to handle tools or equipment unless it has been cooled and checked by the demonstrator.	1
				General public	4	1	General public will not be allowed to handle tools or equipment unless it has been cooled and checked by the demonstrator.	1
5	Cuts from tools or casting objects	Cuts to skin or eyes. Damage of property	Some of the tools and cast objects may have sharp edges that could cut skin or property.	Demonstrator	3	1	Demonstrator will check tools and cast objects. Sharp edges will be identified and blunted if present.	1
				Audience	3	1	Audience will not be allowed to handle equipment or cast objects without demonstrator's permission.	1
				General public	3	1	General public will not be allowed to handle equipment or cast objects without demonstrator's permission.	1