

## Pre- Visit Information for Science Show

This February half-term at National Maritime Museum Cornwall there will be daily science demonstrations provided by the company [Wonderstruck](#), specialists in engaging science demonstrations for children.

The shows will take place on the right-hand side of the Boat Hall as you enter the space, very close to the entrance.

### **Show times will take place at:**

11am, 12pm, 1.30pm and 3pm.

The show will last 25 minutes.



Photo above of the Boat Hall  
(taken from above)

### **What will you experience?**

Experiments will include fire, at times loud noises and lots of visual stimulus. If you have family members who are neurodivergent or have sensory sensitivities, then it is important to be aware that this show will be very stimulating for all the senses. It is likely that the experiments will be very audible from the café area of the museum also.

**Quieter sessions:** There will be two quieter sessions on Sunday 16<sup>th</sup> and Sunday 23<sup>rd</sup> in the morning at 11am. In these sessions some of the louder elements of the show will be omitted. These sessions will still feature demonstrations that will impact the senses, but they will be a little quieter than other performances. We would advise that ear defenders could still be useful.

**Quiet spaces at the museum:** Our Lecture Theatre is a designated quiet space for the event.

**Ear defenders:** We have a small number of ear defenders available would strongly advise bringing your own if you feel they might be helpful for your needs during your visit.

For more information, please contact us at [enquiries@nmmc.co.uk](mailto:enquiries@nmmc.co.uk) or telephone Beth Nicholls, Informal Learning Officer, on 01326 214 543.

Detailed breakdown of the experiments that will feature in standard show:

Demonstration	What happens?
Ethanol rocket	The presenter adds small amounts of ethanol to plastic bottles and ignites them, sending them across the stage.
Wax fireball	A crucible of wax is heated until it melts and ignites. Water is sprayed into the burning oil to produce an aerosolised cloud which ignites to produce a fireball.
Bed of Nails	The presenter lays on bed of nails and has a concrete block broken across their chest with a sledge hammer
Gunpowder	The presenter ignites a small black powder squib underneath a pile of Rice Krispies
Liquid Nitrogen Explosion	A PET bottle has a quantity of liquid nitrogen poured into it. The lid is secured and the bottle is placed in an insulated bin. A trug of teddy bears is then placed on top of that. The bottle explodes shooting teddy bears 6 or 7 metres into the air.
Rocket Car	A volunteer pilots our very own CO2 powered Rocket Car
Balloon bang	A balloon is filled with a mixture of hydrogen and oxygen and ignited

The running order for the standard show will be:

Ethanol Rockets 2 mins

Wax Fireball 3 mins

Bed of Nails 5 mins

Gunpowder 3 mins

Liquid Nitrogen Explosion 4 mins

Rocket Car 5 mins

Balloon Bang 3mins

### Detailed breakdown of the experiments that will feature in the Quieter show:

Demonstration	What happens?
Ethanol rocket	The presenter adds small amounts of ethanol to plastic bottles and ignites them, sending them across the stage.
Rocket pack	A 20 litre water cooler bottle is strapped to the back of the presenter and ignited.
Wax fireball	A crucible of wax is heated until it melts and ignites. Water is sprayed into the burning oil to produce an aerosolised cloud which ignites to produce a fireball.
Bed of Nails	The presenter lays on bed of nails and has a concrete block broken across their chest with a sledge hammer
Gunpowder Heap	A small heap of black powder is ignited on a tile to produce a flash and puff of smoke
Smoke rings	The presenter uses a vortex cannon to fire smoke rings across the venue
Liquid Nitrogen Explosion	A PET bottle has a quantity of liquid nitrogen poured into it. The lid is secured and the bottle is placed in an insulated bin. A trug of teddy bears is then placed on top of that. The bottle explodes shooting teddy bears 6 or 7 metres into the air.
Rocket Car	A volunteer pilots our very own CO2 powered Rocket Car

### The running order for the quiet show will be:

Ethanol Rockets 2 mins

Rocket Pack 2 mins

Wax Fireball 3 mins

Bed of Nails 4 mins

Gunpowder 3 mins

Smoke Rings 3 mins

Liquid Nitrogen Explosion 4 mins

Rocket Car 4 mins