

Equipment / Activity / Area being assessed	Out of this World science show	Risk Assessment No	P&L 09
Location	Eureka! Theatre, Imagination Space or 1855 offices	COSHH assessment	Isopropanol
Who is exposed?	School groups, Eureka! staff		
Date of assessment	Reviewed & updated January 2024		
Assessor's name and job title	Jenny Parker – Play & Learning Manager		

Risk = Likelihood of injury x Severity of injury	R = L x S	Low risk = 0 – 6	Medium risk = 7 - 12	High risk = 13 - 25
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		S = Severity of injury					
		No injury or illness (0)	Minor injury or illness (1)	First aid injury or illness (2)	“3 day” injury or illness (3)	Major injury or illness (4)	Fatality, disabling injury, etc (5)
L = Likelihood of injury	Zero to very low (0)	0 = Low	0 = Low	0 = Low	0 = Low	0 = Low	0 = Low
	Very unlikely (1)	0 = Low	1 = Low	2 = Low	3 = Low	4 = Low	5 = Low
	Unlikely (2)	0 = Low	2 = Low	4 = Low	6 = Low	8 = Medium	10 = Medium
	Likely (3)	0 = Low	3 = Low	6 = Low	9 = Medium	12 = Medium	15 = High
	Very likely (4)	0 = Low	4 = Low	8 = Medium	12 = Medium	16 = High	20 = High
	Almost certain (5)	0 = Low	5 = Low	10 = Medium	15 = High	20 = High	25 = High

	Hazard	Control Measures already in place to control the risk	What additional Control Measures are required?	Risk rating (High, Medium, Low)	Completed/ Escalated to:
1	General room set up: Trailing cables and props on tables could present trip hazard to both presenter & volunteers	Any scenery, props and resources to be set up to minimise hazards and placed at suitable distance from the audience. Fire exits to be kept clear at all times. First aider on site at all times during museum opening hours.	Parents/guardians/teachers to remain in close supervision of the children in their care at all times. Volunteers to be guided around any trip hazards present when making their way up to stage. Volunteers to be given clear instruction by the Enabler doing the demonstration.	L = 3 S = 2 R = 6 Low risk	P&L Team/Duty VSM

2	Electric shock from electrical equipment	<p>All Eureka! equipment to be PAT tested regularly.</p> <p>Extension leads & multi-adaptors – use of these should be kept to a minimum, connecting each appliance directly to a wall socket whenever possible.</p> <p>Extension leads must be full unwound prior to use, otherwise overheating can occur. Extension leads must never be daisy chained.</p>		<p>L = 1 S = 5 R = 5 Low risk</p>	P&L Team/ Duty Tech
3	Unsupervised room – visitors accessing equipment & causing themselves or others harm	<p>Imagination Space – door must be locked at all unstaffed times</p> <p>Theatre – both doors must be locked at all unstaffed times. High risk items to be stored in projection room during break periods.</p> <p>Overnight, equipment should be packed away and stored in the projection room.</p>	<p>All staff to be vigilant in making sure Imagination Space & Theatre doors are locked when room not staffed.</p> <p>To be checked by Duty VSM daily.</p>	<p>L = 2 S = 2 R = 4 Low risk</p>	P&L Team/Duty VSM
4	Use of 1855 ground floor offices: <ul style="list-style-type: none"> Hot radiators Heavy doors 	<p>Sit down & watch activity so children shouldn't be given opportunity to get close to radiators.</p> <p>Enablers/teachers to hold open heavy doors.</p>	<p>Parents/guardians/teachers to remain in close supervision of the children in their care at all times.</p>	<p>L = 2 S = 4 R = 8 Medium Risk</p>	P&L Team/Duty VSM
5	Isopropanol is a flammable liquid	<p>Isopropanol to be stored in the COSHH cupboard in numbered bottles in the office store room when shows not taking place</p> <p>Enablers must ask a Duty Manager to authorise removal of isopropanol from COSHH cupboard & witness its return by filling in signing in/out form</p> <p>Smoke detectors in theatre/l.space/1855 offices to be isolated on days when this activity is taking place.</p>	<p>COSHH sheet in file</p> <p>Isopropanol must not be left in any room unattended. In between sessions bottle & lighter must be returned to COSHH cupboard.</p> <p>Enablers to alert technical team as to when detectors need to be isolated</p>	<p>L = 2 S = 5 R = 10 Medium risk</p>	P&L Team/ Duty VSM/Duty Tech

6	Bottle may melt or catch fire	Use a 500ml water bottle Check bottles for signs of damage, frosting or cracking – do not use damaged bottles. Never add pure oxygen to the bottle: use alcohol/air mixtures only. Use no more than 4ml of isopropanol		L = 2 S = 4 R = 8 Medium risk	P&L Team/ Duty VSM
7	Rocket hitting audience or presenter	Rocket should be launched at suitable angle and distance ensuring nobody is in its path.		L = 2 S = 4 R = 8 Medium risk	P&L Team/ Duty VSM
8	Presenter and/or audience may get splashed with isopropanol	Ensure audience is at least 1m away from demonstration area Presenter to wear eye protection After rolling the bottle, the vapour pressure inside may cause alcohol to spray out when the stopper is removed. Take care to avoid spraying yourself or the audience. Wipe off any alcohol that splashes on the outside of the bottle.		L = 2 S = 2 R = 4 Low risk	P&L Team/ Duty VSM
9	Injury to presenter lighting the alcohol	Presenters given appropriate training on how to deliver demo safely. Presenters to wear safety goggles.	First aider on site	L = 2 S = 3 R = 6 Low risk	P&L Team/ Duty VSM
6	Enablers not being aware or adhering to any of the above control measures	All Enablers who deliver this show receive appropriate training & are asked to read & sign this risk assessment	Signed copy of risk assessment kept in P&L team folder in office	L = 2 S = 2 R = 4 Low Risk	P&L Team

Sign-off of risk assessment

Review by Line Manager (Name, job title and date)	Jenny Parker, P&L Manager, Jan 2024
Review by Operations Team on:	Andy Orr, Operations Director, Jan 2024
Next Review date:	January 2025

Signed by members of the delivery team:

Name	Signature	Date