Major or Standard Events - Risk Assessment Form

Section 1

Event Name	What a gas!	**Event organiser**	Name (print): Louise Crabtree Faculty: Education Engagement Tel: 0113 3436511 Email: l.crabtree@leeds.ac.uk
Date (period) and time of Event	March 2020	**Location/site/premises**	Biological sciences lab, University of Leeds
Description of Event	A workshop for pupils aged 7-13 to learn about the properties of solids, liquids and gases. Activity 1&2: Demos involving dry ice Activity 3&4: Demo to put out flame using carbon dioxide produced from mixing lemon juice and sodium bicarbonate Activity 4&5: Making bath bombs Activity 6: Demo using universal indicator and dry ice		

Section 2

Activity no.	Hazard type	How might the hazard cause harm?	Who may be harmed?	Control measures already in place	Is residual risk now acceptable? (Yes/No)	If not acceptable, list additional control measures	Risk Rating (L x S)*	Action by whom
1	Dry ice	Cold burns / Frostbite	Demonstrator and potentially pupils	Dry ice kept in polystyrene container with lid out of reach of pupils. Any volunteers who come closer to it will be told they cannot touch it. Teachers and student hosts are present and supervising. Use scoop to transfer to the tank, never handle with bare hands.	Yes		2x3=6	
2	Carbon dioxide from dry ice	Asphyxiation	All	Use in a well-ventilated room. Do not store in an airtight container as pressure may build. Transport and store in the correct insulated container to minimise sublimation.	Yes		2x4=8	

Activity no.	Hazard type	How might the hazard cause harm?	Who may be harmed?	Control measures already in place	Is residual risk now acceptable? (Yes/No)	If not acceptable, list additional control measures	Risk Rating (L x S)*	Action by whom
				Dispose of in a well-ventilated area.				
3	Match or Candle flame	Burns	Demonstrator and potentially pupils	Demonstrator keeps matches in safe place and lights candle with pupils at a safe distance. Use a tea light candle in a candle holder to avoid dripping wax.	Yes		3x2=6	
4	Sodium bicarbonate	Mild irritant	Pupils	Wear labcoats and eye protection. Disposable gloves available for those with sensitive skin or eczema. Wash hands after use.	Yes		2x2=4	
5	Citric acid	Mild irritant	Pupils	Wear labcoats and eye protection. Disposable gloves available for those with sensitive skin or eczema. Wash hands after use.	Yes		2x2=4	
6	Diluted universal indicator solution	Highly flammable. Harmful by inhalation, in	Demonstrator and potentially pupils	The indicator will be well diluted in water and only handled by	Yes		3x3=9	

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		contact with skin and if swallowed.		the demonstrator. Clean up spillages immediately and wash hands if contact with skin.				
7	Working in laboratory	Chemicals, electrical hazards, moving parts.	Young people, teachers, presenter(s)	All hazards will be cleared away as far as possible; pupils will be warned not to touch equipment not associated with this session. Teachers and student hosts supervising.	yes		2x2 = 4	

Section 3			
Event Organiser	Name: Louise Crabtree Signature:  Position: Education Engagement Officer Date: 13th January 2020	**Approver of Risk Assessment** ***(refer to process map for level of approval required)***	Name: Nimesh Mistry Signature:  Position: Senior Teaching Fellow Date:

*Refer to following tables for clarification.

Risk Matrix

Severity / Likelihood	Insignificant (1)	Minor (2)	Moderate (3)	Serious (4)	Critical (5)
Almost Certain (5)	Moderate (5)	Substantial (10)	Substantial (15)	Intolerable (20)	Intolerable (25)
Likely (4)	Tolerable (4)	Moderate (8)	Substantial (12)	Intolerable (16)	Intolerable (20)
Possible (3)	Tolerable (3)	Moderate (6)	Moderate (9)	Substantial (12)	Substantial (15)
Unlikely (2)	Tolerable (2)	Tolerable (4)	Moderate (6)	Moderate (8)	Substantial (10)
Rare (1)	Tolerable (1)	Tolerable (2)	Tolerable (3)	Tolerable (4)	Moderate (5)

Risk Rating	The level of risk for an activity is obtained by matching the likelihood of an accident occurring against the severity of the outcome if that accident occurred (i.e. likelihood multiplied by severity).
	General Risk Rating
Tolerable (1 to 4)	No additional controls are required. Consideration may be given to a more cost-effective solution or improvement that imposes no additional cost burden. Monitoring is required to ensure that controls are maintained.
Moderate 5 to 9	Efforts should be made to reduce the risk, but the costs of prevention should be carefully measured and limited. Risk reduction measures should be implemented within a defined time period. Where the moderate risk is associated with extremely harmful consequences, further assessment may be necessary to establish more precisely the likelihood of harm as a basis for determining the need for improved control measures.
Substantial 10 to 15	Work should not be started until the risk has been reduced. Considerable resources may have to be allocated to reduce the risk. Where the risk involves work in progress, urgent action should be taken. Fire Risk Rating If the building is unoccupied, it should not be occupied until the risk has been reduced. If the building is occupied then urgent action should be taken.
Intolerable 16 to 25	Work must not be started or continued until the risk has been reduced. If it is not possible to reduce the risk even with unlimited resources, work has to remain prohibited. Fire Risk Rating Building (or relevant area) should not be occupied until the risk is reduced.