

Demonstration Risk Assessment Form

SCIENCE IN SCHOOLS- EXPLOSIVE FOOD SHOW
FEBRUARY 2021- COVID MEASURES

Please note this document is to be read alongside The Full Risk Assessment for the Explosive Food Show

The follow demonstrations from that stated document will need adaptations:

1. Cinnamon Taste Test
2. PTC Test
3. Digestive System
4. Mentos and Coke

Likelihood		Severity of impact		Current risk
Certain	5	Death or total destruction	5	Multiply Likelihood and Severity of impact to get Current Risk rating
High	4	Major injury or damage	4	
Medium	3	Serious injury or damage	3	
Low	2	Minor injury or damage	2	
Very low	1	Negligible	1	

Action Rating	
10 and above	The work is too dangerous and should not be undertaken
8 or 9	The work is high risk. Those undertaking the work must be fully competent and experienced for the type of work, equipment to be used and fully understand all risks present.
5 or 6	Moderate risk Workers must be fully competent for the type of work and risks present, or under competent supervision.
4	Low risk. Those undertaking the work must be aware or be made aware of the risks and mitigation measures required.
2 or 3	Slight risk. Those undertaking the work should be aware or be made aware of the risks and mitigation measures required.
1	Insignificant risk. Activity suitable for all workers

ACTIONS NEEDED BY VENUE:

1. Isolate Smoke/ Fire Alarms in vicinity of demonstrations
2. Ensure 1 x Fire Extinguisher is on Stand-by (only to be used in emergencies- should be either dry powder, carbon dioxide or water spray (not jet))
3. Ensure presenter knows Fire Evacuations procedures
4. Ensure presenter knows location of nearest fire extinguishers
5. To inform presenter/ Ri (at least 24hr prior to performance time) if any of the attendees suffer allergies to latex, eggs, tomatoes or has a heart condition.

Risk assessed by: Fran Scott
Date of last review: 17/02/2021
Review date: 16/02/2022

GENERAL COVID MEASURES:

Those at risk (please tick)	Ri Staff	On-Stage Volunteers	Audience	Non-Ri Workers	Others
	Y	Y	Y	Y	Y

Method Statement	Hazards	Mitigation	Likelihood	Severity of impact	Current Risk
In light of COVID-19 extra precautions will be taken to ensure that Ri Science in Schools does not contribute to the spreading of the virus. The measures are detailed here.	COVID Infection	<p>It is of prime importance that we protect both your school and our presenters from potential COVID infection. Firstly our presenters will wear masks whilst moving throughout the school building. They will take them off to perform.</p> <p>The presenters will strictly follow the latest guidelines in place at the time. And any addition rules followed within your school building.</p> <p>We will provide the presenter with gloves, virus-grade sanitiser and a mask.</p> <p>If they experience any of symptoms of COVID-19 they will not enter the school building.</p> <p>Tables used in the show will be sanitised before being handed back to the school</p>	2	3	6
	Handling infected props	Before every show the presenter will sanitise all props handled by others throughout the show.	2	3	6

PPE Requirements

Item	Item	Item	Item
Flameproof overalls	Gloves contact	High visibility	Waterproof clothing
Hardhat	Dust Mask	Gloves chemical	Wellington boots
Hearing protection	Mask chemical vapour/mist	Safety shoes	
	Laboratory Coat	Eye protection	



Demonstration: Cinnamon Taste Test

Those at risk (please tick)	Ri Staff	On-Stage Volunteers	Audience	Non-Ri Workers	Others
	Y	Y	Y	Y	Y

Method Statement	Hazards	Mitigation	Likelihood	Severity of impact	Current Risk
<p>Volunteers are asked to pinch nose and place a small amount of cinnamon in their mouths. They are then instructed to release their noses. Once they release their noses they will be able to taste the cinnamon much more.</p>	<p>Having volunteers touching props and being on stage</p>	<p>The cinnamon will be dispensed into single cups for each of the volunteers to use. These will be on a table away from where the presenter is standing such that the volunteers can come onto stage sanitise their hands, then take a cup.</p> <p>When setting up the cup with the cinnamon, the presenter will wear a mask and gloves.</p>	1	3	3

PPE Requirements

Item	Item	Item	Item
Flameproof overalls	Gloves contact	High visibility	Waterproof clothing
Hardhat	Dust Mask	Gloves chemical	Wellington boots

Hearing protection		Mask chemical vapour/mist		Safety shoes			
		Laboratory Coat		Eye protection			

Demonstration: PTC Taste Test

Those at risk (please tick)	Ri Staff	On-Stage Volunteers	Audience	Non-Ri Workers	Others
	Y	Y	Y	Y	Y

Method Statement	Hazards	Mitigation	Likelihood	Severity of impact	Current Risk
<p>Six or more volunteers are selected from the audience and asked to place two differing strips of paper on their tongues, one at a time. One strip is simply a control (a plain strip of</p>	<p>The on-stage volunteers being handed something to put in their mouth by the presenter and associated potential contamination</p>	<p>The strips (in a similar way to the cinnamon) will be dispensed into single cups for each of the volunteers to use. These will be on a table away from where the presenter is standing such that the volunteers can come onto stage sanitise their hands, then take a cup.</p>	2	2	4



<p>paper). The other strip is one that is impregnated with PTC (Phenylthio Carbamide).</p> <p>Both strips can be seen here:</p> <p>https://www.brecklandsscientific.co.uk/HHE-250-100-p/hhe-250-100.htm</p> <p>http://www.brecklandscientific.co.uk/HHE-250-250-p/hhe-250-250.htm</p>		<p>When setting up the cup with the strips in, the presenter will wear a mask and gloves.</p> <p>Alternatively, envelopes can be used to store single strips.</p>			
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PPE Requirements

Item		Item		Item		Item	
Flameproof overalls		Gloves contact		High visibility		Waterproof clothing	
Hardhat		Dust Mask		Gloves chemical	Y	Wellington boots	
Hearing protection		Mask chemical vapour/mist		Safety shoes			
		Laboratory Coat		Eye protection			

Demonstration: Digestive System

Those at risk (please tick)	Ri Staff	On-Stage Volunteers	Audience	Non-Ri Workers	Others
	Y	N/A	Y	Y	Y

<p>Method Statement</p>	<p>Hazards</p>	<p>Mitigation</p>	<p>L i k e l i h o o d</p>	<p>S e v e r i t y o f i m p a</p>	<p>Current Risk</p>
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<p>Various foods are cut up with scissors into a bowl and mixed with coffee. They are then mashed together. First liquid and soap are added. This is transferred to a plastic bag where vinegar and food colour are added. This is then transferred to tights which are squeezed to remove liquid. The final result is squeezed into another bowl</p>	<p>On-stage volunteers touching same props as presenter</p>	<p>There will be no on-stage volunteers used in this demonstration. Instead the presenter will perform all the tasks usually done by volunteers such as:</p> <ul style="list-style-type: none"> - Wearing of the digestive system diagram/ t-shirt/ apron - Cutting up and mashing the food - Place the food into the bag - Stretching out the small intestine 	1	1	1

PPE Requirements

Item	Item	Item	Item
Flameproof overalls	Gloves contact	High visibility	Waterproof clothing
Hardhat	Dust Mask	Gloves chemical	Wellington boots
Hearing protection	Mask chemical vapour/mist	Safety shoes	
	Laboratory Coat	Eye protection	

Demonstration: Mentos Fountain

Those at risk (please tick)	Ri Staff	On-Stage Volunteers	Audience	Non-Ri Workers	Others
	Y	N/A	Y	Y	Y



Method Statement	Hazards	Mitigation	Likelihood	Severity of impact	Current Risk
<p>A tube of menthos mints are loaded into a boiling tube with a card over the opening of the tube. The tube upturned into a bottle of cola, with all the mints falling into the drink. This causes building to form leading to a fountain of cola escaping from the bottle.</p>	<p>On-stage volunteer</p>	<p>This task will now be conducted by the presenter instead of an audience volunteer</p>	<p>1</p>	<p>1</p>	<p>1</p>

PPE Requirements

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