

**The science education specialists**

In association with

Dr Joseph Ireland AKA “Dr Joe”

PhD, MEd, BSc (Psych), GrDipEd (Sec)

ABN: 42 669 724 149.

Blue card. Public liability.

Mob: 041 77955 09

Joe@DrJoe.id.au

***Dear Educator,***

Thank you for booking with Creating Science. ***It is of utmost important that you* *confirm the show details printed on the invoice****.* The total on this invoice is usually blank so that it can be filled out by you on the day.

There are also just a few other points to help you make the most out of your day:

***Programs will usually run as follows.***

* First there will be a 1 hour show that involves everybody, is highly entertaining and educational and targeted right at your students. Show times are to be decided on by the venue. Please allow for travel time for students to and from the venue, especially for prep aged students (up to 15 minutes after recess).
* ***If*** the show includes workshops, each class will then have their allotted (usually 30 minutes, or 1 hr for deluxe programs) hands-on time with the science *Exploratorium* toys OR the *scientific investigations* that we bring. This is a great opportunity for them to ask questions, explore, and consolidate learning from the show.

***Suggestions on how to get the most from your day with Creating Science:***

* *Remember, students will be excited if you’re excited about the day.*
* But not too excited please – remind them that this is a chance to not only see and hear AMAZING things, but also to *learn* and *discover* some even MORE AMAZING things.
* Have students prepare for the day by writing down any ***questions*** they may have regarding the science topic that we will discuss. This can make a big difference in the learning achieved from a one off visit of a science edutainer to your centre. **We love questions!!**
* Try to arrange for regular extra-class activities (such as music lessons) for some students to take place at a different time, or for such students to join in with another classes show and workshop.

***Please note:***

* We do not have sole duty of care of the students at any time. Needless to say, we require an **adult supervisor present at all times** fromthe host centre. Parents and other grown up helpers are always welcomed (*2-4 helpers* can really make difference in management, especially in early childhood.)
* ALERGY ALERT – while all care is taken, the hands on equipment does tour into centres which allow **nuts, milk** and *all other* forms of potential allergens. It *will be necessary* to limit contact or exclude any students with life threatening allergies.
* Most shows involve **balloons**, which will frighten some students just by being there. Students allergic to latex need to be kept well away from the performance area, and we need to be advised prior to the show.
* Please have all **nervous students** near a comforting grownup at all times so that the tears do not spread. Loud sounds, naked flames and explosions, etc, must be expected at a science show.
* **Photos** to advertise the show are available for download from our website at [www.CreatingScience.Org](http://www.CreatingScience.Org). We give permission for our pictures to be taken during the show. The customer is to advise which students cannot be photographed.
* Damage resulting from student misconduct may be billed to the centre.
* Upon receipt of the invoice, please pay a **non-refundable deposit** to secure your booking. This deposit will be subtracted from funds on the day. Please send with the invoice number to the details provided on the invoice.
* Full minimum price for the show will be charged if the show is **cancelled** within one month of the performance date *unless rescheduled within the same calendar year*. If the show is cancelled at any other time *without immediate* reschedulingthe deposit fee is applicable.
* If payments are more than one month **in arrears** after the performance date a $30 late payment fee will apply.
* Creating Science reserves the right to request a date change for the show at any time, without penalty (usually due to unforeseen circumstances such as health issues and or acts of god).

We are Creating Science by Dr Joe. We are the premier touring science show and workshop company in Brisbane. Your feedback is always welcome and highly valued in helping us maintain a show of national standard. Please do not hesitate to contact us on the information above with any questions you have about the day, any science questions you'd like answered on the day, or if any details here presented do not match with your records.

Yours in science,

**Dr Joe Ireland**

Scientist, Author, *Edutainer*.

### Creating Science - General Hazard & Risk Assessment

|  |  |
| --- | --- |
| **Assessed by: Dr Joseph Ireland**  | **Date of assessment: 4th August 2021**  |
| **Signed: J. Ireland.** | **Date of next review: 4th August 2022** |

**Please Note**: this form represents a comprehensive list of all possible dangers associated with a Creating Science program, and most presentations will *not* include all these activities and risks – dependent on student interest, teacher request, and respecting centre needs. If you have a particular demonstration you wish to **request**, or to **avoid**, simply let us know and we will adjust each program to suit your needs.

|  |  |  |
| --- | --- | --- |
| **Hazard classification [severity s]**  | **Likelihood of occurrence****[probability p]** | **Criticality number [c/no]** |
| 1 - None. 2 - Minor injury. 3 - Major injury. 4 - Major injury/death. 5 - Multiple deaths. | 1 - Extremely unlikely. 2 - Very unlikely. 3 - Unlikely. 4 - Likely. 5 -Very likely.  | L - Low 1-8 M- Medium 9-17 H- High 18-25  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Popping balloons, Shrinking / re-expanding balloon, balloon rockets, puff bottles. Anything with balloons. | Loud noises | * + Eye injury at close range (i.e., less than 10cm).
 | * + Location of Students – Keep audience at safe distance (3m) In closer spaces use a Perspex barrier shield. Keep balloons away from student faces.
	+ First Aid / First Aid Kit – Appropriate facilities are readily available. Apply first aid as determined by venue protocols.
 | 2 | 4 | 8 | L | Teachers to warn or remove students overly frightened by loud noises. |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Small, localised fire (including but not limited to Ruben’s fire tube, coloured fire, and more,)The darker the performance venue, the stronger the effect. | Flammable liquid – methylated spiritsFlammable materials – tissue paper | * + H225 Highly flammable liquid and vapour. Physical harm and injury including burns and asphyxiation.
	+ H319 Causes serious eye irritation.
	+ Setting off local fire alarms and falsely alerting authorities.
 | * + Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.
	+ First Aid / First Aid Kit – appropriate facilities are readily available. Wash eyes thoroughly with water if contact occurs.
	+ Eye Protection – Use of chemical googles or safety glasses with side shield protection as appropriate.
	+ Hand Protection – Wear gloves to protect hands.
	+ Body Protection – Clean clothing or protective clothing should be worn, preferably a laboratory coat.
	+ Venue setup – The fire is set up in a metal container, and is not permitted to spread beyond. Flammable materials are kept well clear of the fire. Fire extinguisher is present at all times. Where possible fire alarms should be isolated or an outdoor venue chosen. School halls have sufficient clearage to not set off alarms.
	+ Respiratory Protection – Where ventilation is not adequate, respiratory protection may be required.  Avoid breathing dust, vapours or mists.
	+ Footwear – Full enclosed leather footwear must be worn at all times.
	+ Location of Students – to be located behind a Perspex screen at a distance of more than 3 metres away from the physical demonstration.
	+ Storage & Handling – Storage of flammable materials must be as per Australian Standard.
 | 3  | 1 | 3 | L  | Continual training and monitoring of systems. |
| Air pressure powered rocket / airzooka, vacuum bazooka, rocket balloons. | Projectiles | * + May cause minor eye injury.
	+ Physical injury as participants attempt to climb over each other to claim the rocket.
 | * + Point projectiles away from members of the public when they are likely to move at threatening velocities.
	+ Instruct students to not chase rockets. Have an elected volunteer retrieve the rocket after waiting to see where the rockets land.
 | 2 | 2 | 4 | L | Have a specific area to launch the bottles away from the direction students are congregated. |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Fog clouds (from the fog machine or from dry ice | * + Makes nearby air translucent

Anxious students may suffer respiratory distress | * + Impedes vision
	+ May set off overly sensitive and outdated fire alarms
	+ H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Undiluted vapour should not be inhaled.
 | * + Remind participants to remain seated, that the clouds are not dangerous to them today, and that they shouldn’t move excessively.
	+ First Aid / First Aid Kit – facilities are readily available.
	+ Inhalation Mild irritation of nose & Throat - Remove from exposure, rest and keep warm. In severe cases, or if recovery is not rapid or complete, seek medical attention
	+ Skin Contact Mild irritation Drench the skin with plenty of water. Remove contaminated clothing and wash before re-use. If large areas of the skin are damaged or if irritation persists seek medical attention
	+ Eye Contact Mild irritation Irrigate thoroughly with water for at least 10 minutes. Obtain medical attention
	+ Ingestion Mild irritation of gastro intestinal tract Wash out mouth with water. Do not induce vomiting. If patient is conscious, give water to drink. If patient feels unwell seek medical attention
 | 4 | 1 | 4 | L  |  |
| Clouds | * + Dry ice – solidified carbon dioxide at nearly 80 degrees below 0 (Celsius)
 | * + Asphyxiant in high concentrations. Symptoms include loss of mobility/ consciousness. Victim may not be aware of asphyxiation. Low concentrations of CO2 can cause increased respiration, headache. Refrigerated solidified gas. Contact may cause cold burns or frostbite.
 | * + Respiration protection: Where ventilation is not adequate, respiratory protection may be required.  Do not breathe the gas.
	+ Hand Protection – Avoid skin contact. Use approved gloves only.
	+ Body Protection – Do not allow the material to come into contact with any exposed part of the human body.
	+ Footwear – Full enclosed footwear must be worn at all times.
	+ Storage & Handling – Store only in approved containers.
	+ First Aid / First Aid Kit – appropriate facilities are readily available. Remove victim/s to uncontaminated area.
	+ Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.
 | 4 | 1 | 4 | L |  |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Shrinking / re-expanding balloon. Exploding balloon.Freezing items | Liquid nitrogen | * + Physical hazards Gases under pressure : Refrigerated liquefied gas H281 (Contains refrigerated gas; may cause cryogenic burns or injury.) Non-corrosive for skin. Non-sensitizer for skin.

Asphyxiant in high concentrations. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. | * + Preparatory measures - Used as demonstration only. Public are not permitted to touch LN under any circumstance. Presenter wears gloves, and keeps LN in an approved vessel. In case of inhalation move victim to well ventilated area. In case of contact flush with room temperature water.
	+ Prevention : P282 - Wear cold insulating gloves and either face shield or eye protection. cold insulating gloves, face shield, eye protection.
	+ Response : P336+P315 - Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice / attention.
	+ Storage : P403 - Store in a well-ventilated place.
	+ First Aid / First Aid Kit – Appropriate facilities are readily available.

 Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency. | 4 | 2 | 8 | L |  |
| Exploding bottle / coloured ball ‘volcano’ | Liquid nitrogen* + Sub sonic explosion – very loud.
	+ Shrapnel from event.
 | * + H203: Explosive; fire, blast or projection hazard.
	+ Temporary deafness if the event occurs within a few meters.
 | * + Location of Students – A 25 meter distance is kept between audience and the explosion.
	+ Body Protection – The explosion takes place in a ridged plastic drum, preventing lateral ejection of materials. Explosions tend to go up (due to ambient air pressure) and the explosion is mitigated with play pen balls. Use of face shield, chemical googles or safety glasses along with ear protection appropriate.
	+ First Aid / First Aid Kit –facilities are readily available.
	+ Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.
 | 4 | 2 | 8 | L | Keep students away from explosion space. If possible, perform on stage or in a fenced off area for safety. |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Jacob’s ladderSpectrum tubes and coloured lightning | 1500 volts of electricity | * + Potential burn hazard
	+ Potential electrocution hazard
	+ EM discharge may disrupt nearby electronic equipment such as pacemakers and hearing aids.
 | * + Audience protection - Demonstration only, audience members are kept two meters or more from the event. Sensitive or concerned participants may be excluded from the venue.
	+ Physical safety - Voltage is kept at a point where, while dramatic, is safe (1500V, however less than 20 mA).
	+ Material preparation – spark is allowed to travel up the ladder, whereas remaining at one point may cause ignition of materials.
	+ Hand Protection – wear insulating gloves where possible.
	+ Body Protection – Close, clean clothing or protective clothing should be worn. Do not allow wet or soiled clothing to come in contact with an operating Ladder.
	+ Footwear – Full enclosed footwear worn at all times.
	+ P.A.T. testing programme in place, R.C.D. protection in all equipment. All electrical sockets placed out of participants reach or covered for safety.
	+ Storage & Handling – Detach battery from transformer at all times when not in use.  First Aid / First Aid Kit – appropriate facilities are readily available in case of burns or electrocution.
 | 4 | 2 | 8 | L  |  |
| Popping balloons, Shrinking / re-expanding balloon, balloon rockets, puff bottles. Anything with balloons.  | Latex shrapnel | * + Exposure to latex balloons, gloves and other products containing natural rubber latex may develop allergic reactions such as skin rashes, hives, nasal eye sinus symptoms. Asthma and in rare cases shock.
 | * + Location of Students – Keep audience at safe distance (3m) In closer spaces use a Perspex barrier shield. Keep balloons away from student faces.
	+ Hygiene Measures – Wash hands thoroughly after handling this material.  Maintain good housekeeping at all times.
	+ Storage & Handling - Latex is kept in sealed containers when not in use.
	+ Preparatory measures - Be sure to warn venues of potential latex allergies and recommend excluding students with severe responses.
	+ First Aid / First Aid Kit – Appropriate facilities are readily available. Apply first aid as determined by venue protocols.
 | 4 | 2 | 8 | L | Teachers to warn or exclude students with sever latex allergies |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Lasers, including Popping balloons with lasers | Coherent focuses light beam ~650nm, approximately 1watt. | * + Temporary sight impairment as ‘bright spots’ on the eyes.
	+ Potential partial blindness from extreme and prolonged exposure.
 | * + Preparatory measures -Lasers are unfocused so as not to be dangerous outside the danger range of 25 to 35 cm. Public do not handle the lasers.
	+ Eye Protection – Use of opposite coloured glasses (green glasses in the case of a red laser) as appropriate.
	+ First Aid / First Aid Kit – Appropriate facilities are readily available. In severe cases medical advice should be sought for immediately.
 | 3 | 1 | 3 | L | Keep any lasers above 1mw away from student reach. |
| Coloured Fire | Sodium chloride (table salt)%5 w/v with water. | * + Minimal Hazard - Normally stable, even under fire conditions, and will NOT react with water, decompose, or self-react. Non-Explosive.
 | * + Eye Protection – Use of chemical googles or safety glasses as appropriate.
	+ Hand Protection – Not required.
	+ Body Protection – Clean clothing or protective clothing should be worn, preferably a laboratory coat.
	+ Storage & Handling – Store in a clearly labelled plastic bottle out of student reach.
	+ First Aid / First Aid Kit – appropriate facilities are readily available. Wash eyes thoroughly with water if contact occurs.
	+ Safety Preparation – dilute to 5% w/v with water to greatly reduce potential dangers.
 | 2 | 1 | 2 | L  | This is table salt. |
| Slimes, gels and nappies | Sodium polyacrylate | * + H317: May cause an allergic skin reaction (depending on dye used)
 | * + Eye Protection – Use of face shield, chemical googles or safety glasses with side shield protection as appropriate.
	+ Hand Protection – Not required.
	+ Body/clothing Protection – Wash after use.
	+ Hygiene Measures – Wash hands thoroughly after handling this material. Maintain good housekeeping at all times.
	+ Storage & Handling – Dispose of down sink or in the garden.
	+ First Aid / First Aid Kit – appropriate facilities are readily available. Wash off thoroughly after use. Should there be any signs of skin irritation or redness during or after use, rinse with plenty of cold water. If symptoms persist seek medical advice.
	+ Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.
 | 1 | 3 | 3 | L  |  |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Coloured Fire | Strontium chloride.%5 w/v with water. | * + This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
	+ Inhalation: May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.
	+ Ingestion: Large oral doses may cause irritation to the gastrointestinal tract.
	+ Skin Contact: May cause irritation with redness and pain.
	+ Eye Contact: May cause irritation, redness and pain.
	+ Chronic Exposure: No adverse health effects expected.
 | * + Safety Preparation – dilute to 5% w/v with water to greatly reduce potential dangers.
	+ Location of Students – to be located behind a Perspex screen at a distance of more than 3 metres away from the physical demonstration.
	+ Eye Protection – Use of face shield, chemical googles or safety glasses with side shield protection as appropriate.
	+ Hand Protection – Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
	+ Body Protection – Clean clothing or protective clothing should be worn, preferably with an apron.
	+ Respiratory Protection – Avoid breathing dust/fume/gas /mist/vapours/spray. Use only outdoors or in a well-ventilated area
	+ Footwear – Full enclosed leather footwear must be worn all times.
	+ Storage & Handling – Storage of Strontium chloride must be in a sealed container according to per Australian Standard.
	+ Hygiene Measures – Wash hands thoroughly after handling this material.  Maintain good housekeeping at all times.
	+ First Aid / First Aid Kit – appropriate facilities are readily available.
	+ Inhalation – Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if they continue to feel unwell.
	+ Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician
 | 3 | 1 | 3 | L |  |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Coloured Fire | Potassium iodine %5 w/v with water (potassium iodide) | * + Causes skin irritation.
	+ Causes eye irritation.
	+ May cause respiratory irritation.
	+ Suspected of damaging the unborn child.
	+ Causes damage to organs through prolonged or repeated exposure.
 | * + Eye Protection – Use of face shield, chemical googles or safety glasses with side shield protection as appropriate.
	+ Safety Preparation – dilute to 5% w/v with water to greatly reduce potential dangers.
	+ Hand Protection – Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface.  Dispose of gloves as hazardous waste.
	+ Body Protection – Clean clothing or protective clothing should be worn, preferably with an apron.
	+ Respiratory Protection – Where ventilation is not adequate, respiratory protection may be required.  Avoid breathing dust, vapours or mists.
	+ Footwear – Full enclosed leather footwear must be worn at all times.
	+ Hygiene Measures – Wash hands thoroughly after handling this material.  Maintain good housekeeping at all times.
	+ Location of Students – to be located behind a Perspex screen at a distance of more than 3 metres away from the physical demonstration.
	+ Storage & Handling – Storage of Potassium Iodide must be as per Australian Standard.
	+ First Aid / First Aid Kit – appropriate facilities are readily available.
	+ Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.
 | 2 | 1 | 2 | L |  |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Coloured Fire | Copper sulphate. %5 w/v with water (potassium iodide) | * + H302 Harmful if swallowed.
	+ H315 Causes skin irritation.
	+ H319 Causes serious eye irritation.
	+ H400 Very toxic to aquatic life.
	+ H410 Very toxic to aquatic life with long lasting effects.
 | * + Eye Protection – Use of face shield, chemical googles or safety glasses with side shield protection as appropriate.
	+ Safety Preparation – dilute to 5% w/v with water to greatly reduce potential dangers.
	+ Hand Protection – Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface.
	+ Body Protection – Clean clothing or protective clothing should be worn, preferably with an apron.
	+ Respiratory Protection – Where ventilation is not adequate, respiratory protection may be required.  Avoid breathing dust, vapours or mists.
	+ Footwear – Full enclosed leather footwear must be worn at all times.
	+ Hygiene Measures – Wash hands thoroughly after handling this material.  Maintain good housekeeping at all times.
	+ Location of Students – to be located behind a Perspex screen at a distance of more than 3 metres away from the physical demonstration.
	+ Storage & Handling – Storage of Copper sulphate must be as per Australian Standard.
	+ Disposal – DO NOT wash down sink. Wipe with paper towel first and dispose in land fill. Then rinse.
	+ First Aid / First Aid Kit – appropriate facilities are readily available.
	+ Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.
 | 2 | 1 | 2 | L  |  |
| General | Glass containers | * + Break hazard, sharp edges.
 | * + Used only when necessary. Careful handling at all times.
	+ In case of breakage, gather shards using gloves and place in a plastic bag for landfill disposal. Carefully sweep the area, preferably vacuum.
 | 3 | 2 | 6 | L  |  |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Exploding balloon / some chemistry activities such as making hydroxyl gas | Sodium Hydroxide(Common name Caustic soda)* Hazardous Chemical
* Class 8 Corrosive
 | * + Ingestion – Swallowing may cause burns of mouth, throat and stomach.  Severe scarring of tissue and death may result. Damage may appear days after exposure.  Risk of perforation in the oesophagus and stomach.
	+ Inhalation – Severe irritant. Effects from inhalation of dust or mist vary from mild irritation to serious damage or burns of the mucous membranes of the upper respiratory tract, depending on severity of exposure.
	+ Eye – Causes severe burns.  Can penetrate deeply.  In severe cases, ulceration, permanent impairment of vision and permanent blindness may occur.
	+ Skin – Contact with skin causes severe burns and scarring.  Can penetrate deeply.  Burns are not immediately painful, onset of pain and irritation may be minutes to hours.
 | * + Eye Protection – Use of face shield, chemical googles or safety glasses with side shield protection as appropriate.
	+ Hand Protection – Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface.  Dispose of gloves as hazardous waste.
	+ Body Protection – Clean clothing or protective clothing should be worn, preferably with an apron.
	+ Respiratory Protection – Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists.
	+ Footwear – Full enclosed leather footwear must be worn at all times.
	+ Hygiene Measures – Wash hands thoroughly after handling this material. Maintain good housekeeping at all times.
	+ Location of Students – to be located behind a Perspex screen at a distance of more than 3 metres away from the physical demonstration.
	+ Storage & Handling – Storage of Sodium Hydroxide must be as per Australian Standard AS 3780 – Storage and Handling of Corrosive Substances.
	+ First Aid / First Aid Kit – appropriate facilities are readily available.
	+ Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.
 | 3 | 2 | 6 | L | Do not tell the students the name of the chemical, since it is readily available in most supermarkets. |
| **Specific activity** | **Potential risk/hazard** | **Result of occurrence**  | **Precaution taken to control the risk**  | **S**  | **P**  | **c/****no**  | **Risk level**  | **Further action required**  |
| Hands on activities and workshops | Various objects commonly available to children, i.e. small magnets, toys from McDonalds (cut open for inspection), cymbals, marbles, rubber ducky, etc. | * + May cause physical injury such as bruising or eye damage, if thrown around the room
	+ May cause discomfort or asphyxiation if swallowed.
 | * + Audience protection - Students are reminded to use activities appropriately, to take turns and to share.
	+ Footwear – Full enclosed leather footwear must be worn at all times.
	+ First Aid / First Aid Kit – appropriate facilities are readily available in case of burns or electrocution.
	+ Emergency Equipment and Evacuation - Appropriate emergency equipment are readily available, with clear access and egress in the event of an emergency.

Equipment preparation – all materials are considered safe and prepared for early childhood and primary school participation. For example, * + Students are reminded to play safe with the equipment. In early childhood centres the number of marbles are counted back in afterwards.
	+ Rockets are foam tipped, and students are required to aim at the roof, never other students. Students are reminded to play safe with the equipment.
 | 4 | 2 | 8 | L  |  |

While all care is taken, the presenter does not have sole duty of care of the students at any time.

Teachers and the hosting centre are expected to provide proper supervision at all times.