GENERAL HEALTH AND SAFETY RISK ASSESSMENT FORM

| Site | | | **Public engagement events** | | | **Department** | | | | | **School of Chemistry** | | | | | | | **Version / Ref No.** | | **1** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity Location** | | | **Indoors and outdoors** | | | **Activity Description** | | | | | **The Nucleation Game (with Live Music) outreach activity for public engagement** | | | | | | | | | | |
| **Assessor** | | | **Hamish Yeung** | | | **Assessment Date** | | | | | **02/07/24** | | **Date of Review** | | | | | **02/07/25** | | | |
| **Academic / Manager Name** | | | **Hamish Yeung** | | | **Signature** | | | | | **Hamish Yeung (02/07/2024)** | | | | | | | | | | |
| Description of activity assessed: | | | | | Setting up, running and packing up of The Nucleation Game (with Live Music): a hands-on interactive activity for public engagement.  Setup: Transporting activity boxes and equipment, setting up the activity (including electrical speakers and audio cabling).  Running: Public engagement involving building a model of a crystal nucleus using Zoob construction toy pieces against the clock, led by trained demonstrators, accompanied by electro-acoustic music played by live musicians.  Packing up: Packing away the activity. | | | | | | | | | | | |  | | | | |
| Hazard Assessment | | | | | Control Assessment | | | | | | | | | | | | Actions | | | | |
| Hazard Category | Hazards Identified | Who might be harmed? | | How might people be harmed? | Existing Control Measures | | Initial Risk Rating | | | Are these adequate?  Yes/No | | Changes to/ Additional Controls | | Residual Risk Rating | | | Owner | | Due  Date | | Action Complete |
| S | L | R | S | L | R |
| Physical injury | Loading and unloading activity box, instruments and speakers from car | Staff, students | | Back injuries from lifting and lowering heavy objects | Use gripper gloves for heavy loads and multiple objects.  Observe good practice in manual handling; e.g., lift from the legs and keep back upright.  Handle heavy objects with multiple people. | | Medium | Low | Low | Yes | | None | |  |  |  |  | |  | |  |
| Physical injury | Packing and unpacking heavy boxes, instruments and speakers, potentially containing broken parts after transit | Staff, students | | Back injuries from lifting and lowering heavy objects.  Skin piercing from sharp broken objects. | When lifting boxes, observe good practice in manual handling; e.g., lift from the legs and keep back upright.  Handle heavy objects with multiple people.  Take care when opening boxes and inspect visually before reaching in in case contents have broken in transit.  If contents have broken, carefully remove from box.  Place contents carefully into boxes and appropriate cases.  Do not overfill boxes. | | Low | Medium | Low | Yes | | None | |  |  |  |  | |  | |  |
| Physical injury | Roller banner assembly | Staff, students | | Trapped fingers in moving parts | Take care when assembling roller banner.  Follow the manufacturer’s instructions.  Work in pairs if necessary to hold both base and top of banner simultaneously. | | Low | Low | Low | Yes | | None | |  |  |  |  | |  | |  |
| Swallowing and Choking | Toys with small parts | Children | | Swallowing or choking on small toy parts (e.g., Zoobs) | Manufacturers recommended age is 6+; advise adults to closely supervise children below the age of 6.  Do not give pieces to any unsupervised child below the age of 6.  Remove and dispose of any broken pieces.  Do not put pieces in the mouth. | | Low | Medium | Low | Yes | | None | |  |  |  |  | |  | |  |
| Pinching | Zoob toys may pinch fingers during connecting; broken pieces may present stab hazard | Staff, students, members of public | | Pinched fingers | Advise participants to connect pieces slowly and carefully.  Manufacturers recommended age is 6+; advise adults to supervise children below the age of 6.  Remove and dispose of any broken pieces. | | Low | Medium | Low | Yes | | None | |  |  |  |  | |  | |  |
| Electrical | Use of electrical equipment - e.g., electric speakers, laptop, audio cables | Staff, students, members of public | | Electrical shock | Keep electrical cables out of walkways, behind tables where possible, otherwise covered and taped securely down.  Ensure all electrical connections are secure before turning power on. | | High | Low | Low | Yes | | None | |  |  |  |  | |  | |  |
| Physical injury | Congestion – people, tables, equipment and activities in close proximity | Staff, students, members of public | | Bruising on elbows, knees, heads or other extremities | Ensure a gap of at least 1m between tables to allow free movement of people.  Ensure tables are placed such that participant areas are obvious and only demonstrators can go behind them.  Keep area clear by storing activities not in use in their boxes and placing boxes out of the way, e.g., under tables. | | Low | Medium | Low | Yes | | None | |  |  |  |  | |  | |  |
| Physical injuries | Repetitive strain from repeated assembly/disassembly of construction toys and jigsaw puzzles | Staff, students | | Sore fingers and joints | Take regular breaks.  Use gripper gloves to reduce exertion.  Stop if you feel any soreness. | | Low | Medium | Low | Yes | | None | |  |  |  |  | |  | |  |
| Eye and back strain injury | Looking at laptop | Staff, students | | Eye and back strain from looking at laptop | Place laptop in an ergonomic position; raise it on top of a box (securely) if necessary to eye height.  Do not look at laptop for prolonged periods of time; take a break every 20 minutes. | | Low | Medium | Low | Yes | | None | |  |  |  |  | |  | |  |
| Repetitive strain injury | Use of laptop keyboard | Staff, students | | Finger strain | Do not use laptop for prolonged periods of time; take a break between activities every 20 minutes. | | Low | Low | Low | Yes | | None | |  |  |  |  | |  | |  |
| Noise | Music played through electric speakers | Staff, students, members of public | | Ear pain leading to temporary audio impairment through exposure to overly loud noise | Place speakers behind performers to ensure reasonable distance to participants.  Conduct sound check before participants arrive to ensure sound levels are appropriate.  Monitor sound levels through the event and adjust if necessary. | | Low | Low | Low | Yes | | None | |  |  |  |  | |  | |  |
| Allergic reaction | Allergic reaction to stickers | Staff, students, members of public | | Development of itchy, red raised skin | When giving out stickers, advise participants to place them on clothing, avoiding skin. | | Low | Low | Low | Yes | | None | |  |  |  |  | |  | |  |
| Paper cuts | Paper cuts from paper and card materials | Staff, students, members of public | | Paper cuts to fingers from paper and card materials | Handle paper and card materials with care.  Do not run fingers along edges of paper materials. | | Low | Low | Low | Yes | | None | |  |  |  |  | |  | |  |