#### National Space Centre - Risk Assessment Form

#### Risk Assessment Reference –

| **Location of task or activity being carried out** | External Venues / Schools / National Space Centre | | | | | | | | |
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| **Equipment, task or activity to be assessed** | Stardome | | | | | | | | |
| **Description of task or activity** | The Education Team offers external visits to their school to deliver workshops in house, including use of the Stardome, which is a portable, inflatable planetarium that requires a 6m x 6m floor space with a 4.5m clearance above the dome. The dome is set up inside and is not to be used outside. It recreates a dark night sky with points of light displayed across the inside of the dome. The team travels a maximum distance of 45 minutes from Leicester. | | | | | | | | |
| **Personal Protective Equipment**  *State type and standard* |  | A blue circle with a white outline of a person's face and glasses  AI-generated content may be incorrect. | Eye protection |  | A blue circle with a white body suit  AI-generated content may be incorrect. | Protective clothing |  | A blue circle with a white vest  AI-generated content may be incorrect. | Hi-Visibility clothing |
|  | A blue sign with white outline of a person wearing headphones  AI-generated content may be incorrect. | Hearing protection |  | A blue circle with a white face and a white text on it  AI-generated content may be incorrect. | Respiratory protection |  | A blue circle with white gloves on it  AI-generated content may be incorrect. | Hand protection |
|  | A blue circle with white boots  AI-generated content may be incorrect. | Safety boots |  | A blue and white sign with a head in a helmet  AI-generated content may be incorrect. | Head protection |  | A blue circle with a white outline of a person in a harness  AI-generated content may be incorrect. | Safety harness |
| **Working at height**  *Height, duration and frequency of the work taking place*  *Note: if not working at height during this task, please put n/a* | n/a | | | | | | | | |
| **Safe System of Work** | n/a | | | | | | | | |
| **Date of assessment** | 06/08/2025 | | | | | | | | |
| **Last review date (if applicable)** | n/a | | | | | | | | |
| **Next review date** | August 2026 but earlier review date required following outcomes of accidents, absences and near misses, or changes to processes, work methods, materials, technology, equipment or legislation. | | | | | | | | |
| **Risk Assessment created by [name / date]** |  | | | | | | | | |
| **Authorised by Line Manager [name / date]** | Charlie Isham/ 06/08/25 | | | | | | | | |
| **Authorised by Health and Safety Manager [name/ date]** | Katrina May Neve 07/08/2025 | | | | | | | | |

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| **What are the hazards?**  *Something with the potential to cause harm* | **Who might be harmed and how?** | **Control Measures**  *What is already in place to reduce the risk?* | **Additional Control Measures**  *What needs to be put in place to further reduce the risk?* | **Risk Rating**  *Refer to risk matrix below* | **Timescales for further actions to be completed** | **Responsible person’s job title** |
| Driving company vehicle on busy roads including motorways, in all weather conditions. | **Who**  NSC Discovery team  **How**  Struck by vehicle, fatalities, unconsciousness | Presenters take part in a driver competency course with a 1-on-1 driving instructor before they take the van out alone.  All drivers to familiarise themselves with the vehicle and to drive supervised with experienced driver before driving solo.  New drivers to undertake driving refresher and review with qualified personnel.  Take regular breaks during longer journeys as necessary.  Plan in advance for travelling distances and adverse weather conditions. | n/a | Likelihood: 1  Severity: 5  Risk Rating: 5  [Low] | n/a | n/a |
| Work pattern – early morning and late-night driving for long periods | **Who**  NSC Discovery team  **How**  Struck by vehicle, fatalities, unconsciousness, tiredness, fatigue | Outreach is no more than 45 minutes’ drive from the National Space Centre and start times are no earlier than 08:00 and finish times no later than 17:00.  Two members of staff are sent on outreach activities and share the driving between them. | n/a | Likelihood: 1  Severity: 5  Risk Rating: 5  [Low] | n/a | n/a |
| Poor vehicle maintenance | **Who**  NSC Discovery team  **How**  Vehicle breaking down, fatalities, unconsciousness | Weekly inspections completed by competent personnel.  Key inspections for tyres, lights and fluids take place on a regular basis.  Vehicle serviced according to regular service schedule. | n/a | Likelihood: 1  Severity: 5  Risk Rating: 5  [Low] | n/a | n/a |
| Tripping hazard from edge of dome, cables and mats  Lighting levels | **Who**  NSC Discovery team, members of the public, members of visiting schools  **How**  Cuts, bruises, strains, sprains | Health and safety briefing given to audience / students prior to entry to the stardome, covering the following topics:   * Entry and exit into the stardome * The level of darkness * How sound travels within the dome * What happens if they need to leave the dome   Verbal warnings given to the audience about not sitting on the blue edge of the dome.  Headtorches available for staff.  All wires secured by tape or cable tidies.  Two members of staff work the stardome – one member supervises the students entering the dome and waits at the door, and one staff member waits inside and instructs audience on safe places to sit. | n/a | Likelihood: 1  Severity: 3  Risk Rating: 3  [Low] | n/a | n/a |
| Electrocution | **Who**  NSC Discovery team, members of the public  **How**  Electrocution | The stardome equipment runs from one single plug socket which has a power surge protection included.  All electrical equipment is PAT tested on a rolling bi-annual basis by a competent person.  PAT testing completed for all new and existing equipment. | n/a | Likelihood: 1  Severity: 5  Risk Rating: 5  [Low] | n/a | n/a |
| Safeguarding | **Who**  NSC Discovery team, members of the public  **How**  Harm to staff or children | Presenter to be accompanied by school teaching staff throughout the day.  All presenters complete a child protection training module and are aware of the safeguarding leads at the National Space Centre.  All presenters are DBS checked and evidence of this is shared with the school upon arrival. | n/a | Likelihood: 1  Severity: 4  Risk Rating: 4  [Low] | n/a | n/a |
| Lone Working | **Who**  NSC Discovery team  **How**  Cuts, bruises, strains, sprains | All staff are to contact the team WhatsApp group on arrival and departure to and from their location. If a member of staff has not contacted or responded to messages, destination school to be contacted until the member of staff can be traced.  Roadside cover in place in the event of any breakdowns or accidents. The membership card is kept inside the van.  All members of staff have a mobile phone with them on any journey to ensure they are contactable.  Two members of staff complete the stardome outreach. | n/a | Likelihood: 1  Severity: 4  Risk Rating: 4  [Low] | n/a | n/a |
| Loading the stardome and equipment into the van | **Who**  NSC Discovery team  **How**  Musculoskeletal disorders, strains, sprains | Staff have completed manual handling e-Learning.  Ramp installed on the van for easier loading of equipment.  Trolley available in the van for moving equipment.  Stardome equipment has wheels for easier movement.  Two-person lift completed. | n/a | Likelihood: 2  Severity: 3  Risk Rating: 6  [Low] | n/a | n/a |
| Taking the stardome and equipment from the van into the school | **Who**  NSC Discovery Team  **How**  Musculoskeletal disorders, strains, sprains | Staff have completed manual handling e-Learning.  Ramp installed on the van for easier removal.  Trolley available in the van for moving equipment.  Stardome equipment has wheels for easier removal.  Two-person lift completed.  Van to be parked at a reasonable distance from the school to avoid staff completing manual handling across a long distance.  NSC Discovery team only to complete manual handling of equipment from van. | n/a | Likelihood: 2  Severity: 3  Risk Rating: 6  [Low] | n/a | n/a |
| Set up and breakdown | **Who**  NSC Discovery team  **How**  Cuts, bruises, slips, trips, falls, strains, sprains | Headtorches provided to presenters during set up.  Two-person lift completing for manual handling of equipment.  Staff have completed manual handling e-Learning. | n/a | Likelihood: 2  Severity: 3  Risk Rating: 6  [Low] | n/a | n/a |
| Fire and evacuation | **Who**  NSC Discovery Team, members of the public  **How**  Exposure to smoke, exposure to fire, burns, unconsciousness, fatalities | In the event of an evacuation or a fire, the stardome is lifted up and flipped, causing it to de-inflate.  This can happen if people are inside as there is no floor to the dome.  When the dome has been lifted, standard evacuation procedures to be followed.  Schools to share evacuation procedures with NSC Discovery team prior to their arrival and prior to the stardome activity taking place. | n/a | Likelihood: 1  Severity: 5  Risk Rating: 5  [Low] | n/a | n/a |

**Risk Rating Matrix**

**Risk = Likelihood of harm x Severity of harm**

**R = L x S**

**Low risk = 1 – 6, Medium risk = 8 - 12, High risk = 15 - 25**

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|  | | **S = Severity** | | | | |
| **Negligible Consequences (1)** | **Low Consequences (2)** | **Moderate Consequences (3)** | **Significant Consequences (4)** | **Catastrophic Consequences (5)** |
| **L = Likelihood** | Very unlikely (1) | 1 = Low | 2 = Low | 3 – Low | 4 = Low | 5 = Low |
| Unlikely (2) | 2 = Low | 4 = Low | 6 = Low | 8 = Medium | 10 = Medium |
| Likely (3) | 3 = Low | 6 = Low | 9 = Medium | 12 = Medium | 15 = High |
| **Very likely (4)** | 4 = Low | 8 = Medium | 12 = Medium | 16 = High | 20 = High |
| **Almost certain (5)** | 5 = Low | 10 = Medium | 15 = High | 20 = High | 25 = High |

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|  | **Risk Rating Definitions and Guidelines** |
| **Low** | **Minor to no injury, damage or impact to health.**  This is an acceptable level of risk. No further controls are required as the risk rating cannot be reduced any further. However, it is advised continual monitoring occurs to ensure that no changes/deviation of control measures occur. |
| **Medium** | **An injury requiring further medical assistance, a RIDDOR reportable incident, moderate impact to health or moderate damage to property.**  It is advised that further control measures are implemented to reduce the risk rating to as low a level as possible. If the risk cannot be reduced to lower than a medium, then on-site monitoring should occur to ensure that all stipulated controls are being adhered to. |
| **High** | **Death, paralysis, long term serious ill health or severe damage to property.**  This is an unacceptable risk rating. Urgent interim controls should be implemented to reduce the risk so far as is reasonably practicable. If the risk rating cannot be reduced to lower than high, then a documented safe system of work should be implemented to control the activity. It may be necessary to seek further professional advice. Serious consideration should be given to the validity of carrying out the activity at all. Regular monitoring of the activity should occur. |