

General Risk Assessment Form

RA1

University of Cambridge, general risk assessment form

SCoPE teaching toolkit – ‘Unlocking Gene Editing’
 The Gurdon Institute have provided 4 bags (1 for each group of 3-4 students) with a series of biology-themed logic puzzles that make up a game. Each bag contains a mixture of standard laboratory items, office supplies, and a few 3D-printed items. The Institute has also provided a PowerPoint file for the teacher to use to set up the game and lay out the rules and an instructions document for the teacher that outlines the necessary preparation and draws attention to potential risks that are detailed below.

Updated 14/01/2020

List the significant hazard(s). ¹	Describe what could go wrong – that is, say who might be hurt and how. ²	Is the risk high, medium or low? ³	Please list the existing and/or intended control measures which will reduce the likelihood of all this happening. ⁴	Suggest here any further actions which may be beneficial. Say who will carry them out and by when.
Messy classroom during the game	Students or teacher(s) could be injured by tripping over an item left on the floor during a busy game.	Low	Students will be instructed to put away items when they are finished using them, as they won't be used again.	The teacher has been alerted to this risk in the PDF instructions document.
UV torch	UV light is invisible and does not induce the same natural reaction to squint or look away. Students or teachers could harm students' or teachers' eyes if stared into for a long period of time.	Low	The teacher has been alerted to this risk in the PDF instructions document and asked to watch for students attempting to shine the UV light into other peoples' eyes.	

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<p>Magnets (glued into 3-D printed amino acid puzzle pieces) can have a surprising amount of power and could cause tissue damage. Magnets may also cause an allergic reaction for people with nickel allergies if ingested or exposed to skin for a prolonged period of time.</p>	<p>Each of the 19 amino acid puzzle pieces in every kit have two small magnets super-glued into recessed areas. Though only 0.8mm in diameter, these magnets are stronger than ordinary magnets of the same size.</p> <p>Students or teacher(s) could get skin or other tissue caught between magnets which would cause a painful nip, blood blister, or other tissue damage. If the magnets become loose and are ingested or inserted into ears, nose or mouth, they could cause pain and tissue damage through compression if they get close to other magnets.</p> <p>Strong magnets could also affect heart pacemakers, CRT monitors and televisions, credit cards, diskettes, or any other magnetically stored data (e.g. computers, harddrives, phones).</p> <p>The magnets could also chip or shatter into small, sharp pieces if they are smashed together.</p> <p>Magnets are nickel-plated and anyone with a nickel allergy could have a reaction if there is prolonged skin exposure to the magnets.</p>	<p>Low</p>	<p>The magnets have all been super-glued into place and would therefore be very difficult to ingest, cause an allergic reaction, get smashed together and become chipped or shattered, or to cause painful nips, blood blisters, or any other tissue damage.</p> <p>These magnets are also so small in size and number that they will be unlikely to cause damage to pacemakers or other devices that could be affected by magnets.</p>	<p>The teacher has been alerted to this risk in the PDF instructions document.</p>

Important! It is essential to check regularly that control measures specified in this risk assessment document are actually being used in practice. Any specialist emergency or first aid procedures should be specified here.

If any Standard Operating Procedure (SOP) is required, please specify it here or attach it to this form. Any specialist training required should also be specified here.

Is special monitoring (e.g. hearing test, eye test, health surveillance) required? If so, please enter details and also contact the University Occupational Health Service.

What personal protective equipment (PPE) is required (e.g. overalls, gloves, respiratory protection, eye protection)? You must ensure that any PPE specified is suitable for the purpose. Some activities require PPE, see activity RA

Please complete this section to confirm that this constitutes a suitable and sufficient assessment of risk.

Name of assessor:	Signature:	Date:	Name of supervisor:	Signature:	Date:
Helene Doerflinger	Helene Doerflinger	14 January 2020			

This assessment should be reviewed regularly (usually every 12 months), or earlier if there is a material change to the process, the equipment, location or relevant safety technologies. It should also be reviewed when new people are involved, or after an accident or incident has taken place.

Reviewed by (name)	Signature	Date	Indicate changes here ⁵

¹ A list of hazards is provided below to help you, but this may not be exhaustive. If any of these hazards can be eliminated altogether, or can be reduced at source by making an inherent change then we must consider doing so. Hazards in **bold** will also need an additional, more technical assessment on a specialist form - please ask your Departmental Safety Officer or the University Safety Office for further advice.

High or low temperatures	High pressures	Chemical hazards	Biological hazards	Genetically Modified Organisms	
Ionising radiations	Lasers	Sharp objects	Dusts	Work at heights	Animal houses
Magnetic fields	Machinery hazards	Electricity	Manual Handling	Noise	Vibration
Falling objects	Collapsing structures	Flooding	Slips, trips and falls	Asphyxiant gases	Flammable gases

² Please explain how an accident, incident or health condition could arise. We must consider all events which are *reasonably foreseeable*.

³ Please see the health and safety risk assessment handbook for further guidance on levels of risk.

⁴ When deciding on suitable control measures, you should ensure that you are complying with all relevant University policy and guidance documents, and that you have considered the hierarchy of control measures. In order to comply with legislation, we must also take all steps which are 'reasonably practicable' to reduce risk. This means that we should take all steps which are (in terms of time, cost and trouble) reasonable in relation to the reduction of risk achieved.

⁵ If changes are extensive, you will need to complete a whole new form, or attach a written amendment. If there are no changes say so.