

## Risk Identification Template

Please complete this risk assessment for your activity using the formula set out below. Please consider any hazards specific to your activity greater than every day hazards such as slipping, tripping or falling on stairs, trapping fingers in doors and cuts and bruises which are inherent in all environments.

Provider	<b>Dr Matthew T. Cole</b>		
Activity Description	Production of graphene. Graphite crystals approximately 3 mm in diameter and 2 mm thick are provided. Students, wearing gloves to protect the graphite, carefully place the graphite into some cellotape and then proceed to peel-stick-peel-stick the cellotape to exfoliate new layers from the graphite to eventually form graphene which is transferred to glass slides to inspected inspect using optical microscopes.		
Who will be exposed to the hazards	School Students and adults taking part in the activity.		
Hazard	Severity and Likelihood.	Control measures	Risk rating after control measures applied.
Irritation or skin damage from graphite.	1,1	Graphite is a commonly found material that is soft. Students wear nitrile gloves	1
Reaction to nitrile gloves	1,2	Having nearby wash basins in the unlikely event of a skin reaction. Reducing time that students wear the gloves for < 40 mins reduces likelihood of reaction which is often mediated and accelerated by sweating.	2
Cracked glass slides	2,1	Local first aid provided. Thicker than usual glass slides will be used during the session	2

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In order to calculate the risk to health, we consider the nature of the activities, the potential hazards and the likelihood of occurrence. We then consider the control measures we need to put in place to minimise these. Then in order to calculate how high a risk an activity is, we score the hazard severity by the likelihood of occurrence on a scale of 1 to 5 and multiply the two figures together.

**Hazard severity**

1. No risk of injury
2. Slight (minor injury requiring first aid)
3. Moderate (injury resulting in 3 days off school/work)
4. High (causing death or serious injury to an individual)
5. Very high (causing multiple deaths and widespread destruction)

***Multiplied by***

**Likelihood of occurrence**

1. Not likely (only under freak conditions)
2. Possible (if other factors are present)
3. Quite possible (if other factors precipitate it)
4. Likely (with other effects or sheer carelessness)
5. Very likely (an accident waiting to happen)

A multiplied score of 1 means there is no, (or little) hazard, and no (or a very unlikely) likelihood of it happening any more than a child falling over their own feet. Formal written risk assessments for a multiplied figure of 5 or less would not normally be carried out in most organisations (other than a mental risk assessment), though for schools we provide a written brief to demonstrate that we have considered the potential hazards, even though we may have come to the conclusion that there are no significant risks. A figure of 25 (5x5) would mean that the hazard was great (life threatening) and the chances of it happening very likely. The control measures demonstrate that the hazards and organisation of the activity have been carefully considered and by having these in place, the likelihood of occurrence will be less.