



HEALTH, SAFETY AND ENVIRONMENT ASSESSMENT

CSIRO DISCOVERY

CSIRO acknowledges that assessment and control of health, safety and environmental risk is an important process and one that is integral to achieving its strategic intent. Risk assessment of all CSIRO work and sites is intended as a planning activity to prevent incidents, injury, illness, property damage and environmental degradation as well as assist CSIRO comply with health, safety and environment legislation.

CSIRO will identify workplace hazards that pose a risk to people and the environment, assess the magnitude of these risks and apply appropriate operational controls.

CSIRO Discovery is a public centre providing school groups with an education program in a safe and comfortable setting. The exhibits and school programs are assessed regularly for identification and assessment of hazards that may pose a threat to visiting school groups. Staff trained in administration of first aid are present during all day time school visits.

Identified hazards are examined against a hierarchy of controls to determine whether it is possible to eliminate the hazard completely or minimize the consequences.

Following is an assessment of identified health and safety hazards that visiting school groups may be exposed to during a booked visit to CSIRO Discovery. The assessment includes identified controls to manage the risk and inherent and residual risk calculations. The inherent and residual risks are calculated using the Risk Assessment Module (see pages 2 and 3).

18 June 2019
Sue Darby
CSIRO Discovery Centre
Sue.Darby@csiro.au

HEALTH, SAFETY & ENVIRONMENT ASSESSMENT OF WORK TOOLBOX

RISK ASSESSMENT MODULE - DETERMINATION OF RESIDUAL RISK

INHERENT RISK (the risk that exists in the absence of control measures)

Find the ratings for the consequence and the likelihood then refer to the table below:

Consequence Table

LEVEL	DESCRIPTOR	CONSEQUENCE – DESCRIPTION
1	Insignificant	No injuries, low financial loss
2	Minor	First aid treatment, on site release immediately contained
3	Moderate	Medical treatment required, on site release contained with outside assistance, high financial loss
4	Major	Extensive injuries, loss of production capability, off site release with no detrimental effects, major financial loss
5	Catastrophic	Death, toxic release off site with detrimental effect, huge financial loss

Likelihood Table

LEVEL	DESCRIPTOR	LIKELIHOOD – DESCRIPTION
1	Rare	May occur only in exceptional circumstances
2	Unlikely	Could occur at some time
3	Possible	Might occur at some time
4	Likely	Will probably occur in most circumstances
5	Almost Certain	Is expected to occur in most circumstances

Risk Matrix

LIKELIHOOD	CONSEQUENCES				
	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
(5) Almost Certain	M	M	H	H	H
(4) Likely	M	M	M	H	H
(3) Possible	L	M	M	H	H
(2) Unlikely	L	L	M	M	H
(1) Rare	L	L	M	M	H

Legend:

H:	High risk immediate action required
M:	Moderate risk; management responsibility must be specified (significant and moderate combined to be moderate)
L:	Low risk; manage by routine procedures

Assessment of OHS Risks - Booked school groups visiting CSIRO Discovery

This page is used to record each of the occupational health and safety hazards identified in relation to a school visit to CSIRO Discovery and to record the risk ratings associated with each hazard.

<i>Specific Hazard</i>	<i>Description of task/activity</i>	<i>Inherent Risk*</i>			<i>Controls – Existing and Proposed</i>	<i>Residual Risk*</i>	
		C	L	IR		M	RR
Fall from entrance walkway	Students climbing hand rails	major	rare	moderate	Walkway built to Australian standards Students supervised by teachers	very good	low
Collision with Vehicle	Crossing roads within the Black Mountain site	major	rare	moderate	Students supervised by teachers	very good	low
Fall down entrance stairs	Students running	moderate	possible	moderate	Stairs built to Australian standards Students supervised by teachers	very good	low
Sickness whilst viewing 3-D movie	Viewing 3-D movie	moderate	unlikely	moderate	Students advised of potential hazards from viewing 3-D virtual reality	very good	low
Spillage of liquids in Discovery Centre areas	Performing experiments	insignificant	likely	moderate	Students supervised by CSIRO staff during programs in these areas Small quantities of liquids used	very good	low
Chemical /food poisoning in Discovery Centre areas	drinking chemicals	moderate	unlikely	moderate	Students supervised by CSIRO staff during programs in these areas Only small quantities of potentially dangerous chemicals (<50ml) used	very good	low
Fall from stool	Students 'arguing' over use of stool; stool moves.	moderate	likely	moderate	Students supervised by CSIRO staff	reasonable	moderate
Swallowing/choking on small object	Students swallow 'damaged' microscope samples	moderate	unlikely	moderate	Microscopes and samples checked regularly for damage	very good	low

Collision with exhibit	Students running through exhibit	insignificant	possible	low	Students supervised by CSIRO staff and teachers. Instructed in introduction to not run	reasonable	low
Harm by/ incident with member of public	'negative' interaction with other visitors to CSIRO Discovery	moderate	unlikely	moderate	Teacher to be present with each group Students advised not to visit toilet without teacher's permission. Students visit toilets in pair. Students supervised by CSIRO staff.	very good	low
Harm by/ incident with CSIRO staff member	'negative' interaction with CSIRO staff member	moderate	unlikely	moderate	CSIRO staff working with persons under 18 years obtain ACT working with Vulnerable people cards and National Police Certificate	very good	low
Fire	Building on fire	catastrophic	unlikely	high	CSIRO staff are trained in evacuation procedures. Full time Discovery centre staff are fire warden trained	very good	low
Slip on wet floor	Moving through exhibition or lab areas where liquids may be present	minor	likely	moderate	CSIRO staff monitor for water spills and clean up immediately Slippery when wet sign displayed	very good	Low
For PC2 lab tours and DNA to the max: exposure to biological and chemical hazard	Students in areas where hazards may be present	minor	possible	moderate	Students are to comply with all instructions from CSIRO staff. Closed in shoes must be worn. Lab coats and safety glasses may be required depending on particular lab area. Students are instructed not to touch or move any samples, equipment or chemicals unless given permission by lab staff	very good	low
For external glass house tours and Ecology lab: exposure to bites and stings	Students in external areas where snakes and bull ants may be present	minor	unlikely	low	Students are to comply with all instructions from CSIRO staff. Closed in shoes must be worn	very good	low

- **C** – consequences; **L** – likelihood; **IR** – inherent risk; **M** – management control; **RR** – residual risk