

Risk assessment plan – Marvellous Microorganisms

School/workplace	Riverina Environmental Education Centre			Condition, task, activity or event	Students stay at the REEC for a 4 hour period. They explore microorganisms with microscopes. Glitterbug potion is used in conjunction with blacklight torches (UV light). Students participate in observations using yeast and water samples from various locations around the site. Students investigate decomposition of foodstuffs and compost organisms.
Principal/workplace manager	Darron Watt				
Assessed by	Danyelle Scrivener Cathy Strong	Date	19.2.24	Location	7161 Olympic Highway MOORONG Wagga Wagga NSW
Approved by	Darron Watt	Date		Review date	
WHS Risk Register update		Date		Prepared in consultation with	Cheryl McKee – Work Health and Safety Advisor Health, Safety and Staff Wellbeing Directorate 7.3.24

Risk Management process

Hazard/s	Risk/s	Risk rating	Control action/s	Risk rating after controls	Responsible	Due	Complete
What presents the potential risk to health and/or safety?	What might happen, how likely is it and what could be the consequence/s?	Apply WHS Risk Matrix	What action/s will be taken to eliminate the risk/s or at least reduce them to an acceptable level?	Apply WHS Risk Matrix	Who is responsible for putting controls in place?	When should the controls be put in place?	When were controls implemented?
General	Lack of emergency response	Extreme 15	<p>REEC staff have current first aid, CPR, anaphylaxis, e-emergency care qualifications and carry first aid kits with snake bite constrictive bandage, Ventolin, asthma medication, EpiPens and mobile phone.</p> <p>REEC emergency management and bushfire plans are in place.</p>	High 12	REEC staff	Prior to excursion	Annually
Environmental factors	Allergic reaction to plants or stings	Extreme 15	<p>Student welfare sheets from schools checked before the commencement of study. Any questionable student issues are clarified by phone call before the visit.</p> <p>REEC staff will ask to sight students with allergies before the program commences.</p>	High 12	REEC staff	Prior to and immediately upon arrival of the participating class.	Ongoing

Hazard/s	Risk/s	Risk rating	Control action/s	Risk rating after controls	Responsible	Due	Complete
		High 12	<p>REEC staff carry EpiPens and asthma inhalers in case of emergency.</p> <p>REEC staff to regularly check for wasp nest building and spray to control any building sites.</p> <p>Assessing movement through site and always avoiding areas of higher risk potential</p>	Medium 6	REEC staff	Prior to visit	ongoing
Environmental factors	Sun	Medium 6	<p>Students advised to wear hat, apply own sunscreen, and carry water. All advice for excursion given to classroom teachers to convey to students and parents before visiting. Sun safety info is available at https://www.cancer.org.au/cancer-information/causes-and-prevention/sun-safety/be-sunsmart/sunsmart-in-schools</p>	Low 3	Visiting staff	Email correspondence between REEC staff and visiting teachers 2 weeks prior to visit	Ongoing
	Extreme weather conditions	High 9	<p>Local decisions made on morning of the visit – consideration given for possible thunderstorms, high rain events or high winds. High winds can</p>	Medium 6	REEC staff	Prior to and on the day of the excursion	Ongoing

Hazard/s	Risk/s	Risk rating	Control action/s	Risk rating after controls	Responsible	Due	Complete
	Bushfire	Extreme 15	<p>cause surrounding trees to break and fall. In the event of high winds or inclement weather, (predicted by BOM), the study may be postponed to another mutually suitable date.</p> <p>In the event of weather conditions changing after students arrive, visiting staff will call transport earlier and return to their school.</p> <p>REEC Bushfire Plan is in place.</p> <p>In the event of an emergency, students and visiting staff move with REEC staff down the driveway and are evacuated to the nearest school (Ashmont PS).</p> <p>Students and visiting staff inducted as to fire/ emergency evacuation protocols before study commences. Studies are not conducted during extreme to catastrophic fire danger periods.</p>	High 12	REEC staff	Annually Term 3	Ongoing

Hazard/s	Risk/s	Risk rating	Control action/s	Risk rating after controls	Responsible	Due	Complete
Walking on rough ground	Separation from group Slips, trips and falls Insect bites Possible snake encounter	High 12	<p>REEC staff member will give safety talk before embarking on activities on site. Students are advised they are not to run or walk in front of leading teacher.</p> <p>REEC staff member at the front of the group and visiting staff following at the back of the group when moving across the site.</p> <p>REEC staff will carry additional first aid kit. Visiting staff to carry own first aid kit.</p> <p>Students wear enclosed footwear.</p> <p>Students warned of known insect presence and uneven ground.</p> <p>Paths taken to each activity avoid bull ant nests, bees, tree branches at eye height etc.</p> <p>Snake bite kit and mobile phone always carried by REEC staff</p>	Medium 6	REEC staff	At start of excursion All transitional movements across the day.	Ongoing
People	Physical, medical and behavioural needs	High 12	Schools give prior advice to REEC of student medical, physical or behavioural needs.	High 9	Visiting school staff	Prior to and during excursion	Ongoing

Hazard/s	Risk/s	Risk rating	Control action/s	Risk rating after controls	Responsible	Due	Complete
			<p>Student medications are the responsibility of the staff of the visiting school.</p> <p>Students with anaphylactic allergies or asthma to bring own EpiPen and asthma medications. REEC staff will carry additional EpiPens and Ventolin puffers.</p> <p>Visiting staff should advise REEC about potential student 'flight risks'. Behaviour support is the responsibility of the visiting staff and supported by REEC staff</p>		<p>Visiting school staff</p> <p>REEC staff</p> <p>Visiting school staff</p>		
Glitterbug potion	Skin contact allergy	Medium 4	MSDS advises this chemical is benign. Chemical is used for medical training in handwashing practices. Students with known skin sensitivities should avoid participating in this activity.	Low 1	REEC staff	At the time of the activity	Ongoing
Algal bloom in water samples collected	Ingestion poisoning or skin contact allergy	Medium 8	Students warned of potential hazards of algal bloom in water samples. Students advised not to touch or ingest water samples.	Medium 6	REEC staff	Prior to and during the activity	Ongoing

Hazard/s	Risk/s	Risk rating	Control action/s	Risk rating after controls	Responsible	Due	Complete
Fungus	Ingestion poisoning or skin contact allergy	High 10 Low 3	Any organic growing fungus will be observed from a distance and students will be advised that fungus, while eaten in some cases, should not ever be picked and ingested at this site. Food grade yeast will be observed using microscopes and will be preprepared in covered petri dishes. Students will be advised to leave sample covered and not eat (benign) yeast.	Medium 8 Low 1	REEC staff	Prior to and during the activity	Ongoing
Compost fauna	Bites or stings from an invertebrate	Extreme 15 Medium 6	All ASCIA plans should be brought with the school's medical kits and student autoinjectors for sighting by REEC staff. Students bitten or stung by invertebrates are observed for any changes that need medical attention. Ice packs are used for minor bites or stings.	High 12 Low 3	Visiting school staff REEC staff	2 weeks prior to and at the beginning of the excursion. In the event of a sting or bite	
Collecting water samples from the dam	Falling into the dam Drowning	Medium 6	Close monitoring of students by REEC staff and visiting staff. Following rain or slippery banks, REEC staff will	Low 3	REEC staff	At the time of the visit to the dam	Ongoing

Hazard/s	Risk/s	Risk rating	Control action/s	Risk rating after controls	Responsible	Due	Complete
			assess whether to allow students near the dam.				
Use of electrical equipment (eg. microscope lights)	Electrocution	High 10	All buildings are fitted with earth leakage and undergo regularly scheduled test and tag tests of electrical appliances. REEC staff to undergo visual check of cables and plugs before use.	Medium 8	REEC staff	Prior to and day of excursion	Ongoing
	Skin burn	Medium 6	Students are not allowed to unplug microscope lamps from power points. Induction on correct use of microscopes and all equipment used in classroom lab before engaging in microscope activities. Microscope lamps are moved to position before turning on. Students are advised not to move lamps whilst turned on, or immediately after use.	Low 3	REEC staff	Ongoing	Ongoing

Risk matrix and evaluation

Table 1: THE WHS RISK MATRIX

LIKELIHOOD (Probability)		CONSEQUENCE (Severity)				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Critical 5
		No treatment required.	Injury/illness requiring first aid treatment only.	Injury/illness requiring hospitalisation on going treatment.	Life-threatening injury/illness or multiple hospitalisations.	Death or multiple life-threatening injuries.
Almost certain 5	Expected to occur in most circumstances.	MEDIUM 5	HIGH 10	EXTREME 15	EXTREME 20	EXTREME 25
Likely 4	High probability of occurring in most circumstances.	MEDIUM 4	MEDIUM 8	HIGH 12	EXTREME 16	EXTREME 20
Possible 3	Might occur occasionally.	LOW 3	MEDIUM 6	HIGH 9	HIGH 12	EXTREME 15
Unlikely 2	Could occur at some time, doubtful.	LOW 2	MEDIUM 4	MEDIUM 6	MEDIUM 8	HIGH 10
Rare 1	May occur but only in exceptional circumstances.	LOW 1	LOW 2	LOW 3	MEDIUM 4	MEDIUM 5

Table 2: WHS Risk Evaluation

Risk level	Acceptability	Priority for action to control risk	Sign-Off Authority: Schools	Sign-Off Authority: Other workplace
Low 1-3	Acceptable	PROCEED while monitoring existing controls. Manage the exposure to the hazard using existing procedures in consultation with workers and respond to any changes.	School Principal or delegate	Immediate Supervisor or Workplace Manager
Medium 4-8	Tolerable	PROCEED with the activity and/or allow the hazard to persist only after identifying and implementing any additional controls reasonably practicable. Monitor all controls and manage the exposure to the hazard using existing procedures in consultation with workers and respond to any changes.	School Principal or delegate	Senior Manager or Director
High 9-14	Unacceptable	DO NOT PROCEED and/or allow the hazard to persist until all risks/hazards are identified and the most effective control methods are documented in a risk assessment. Seek support from the workplace manager and WHS Advisor or the Incident Report and Support Hotline.	Principal to sign off. Principal to talk to staff about eliminating or reducing the risk, and contact: <ul style="list-style-type: none"> Health, Safety & Staff Wellbeing Directorate for review Legal as required. 	Executive Director or delegate to talk to staff about eliminating or reducing the risk and contact: <ul style="list-style-type: none"> Health, Safety & Staff Wellbeing Directorate for review Legal as required.
Extreme 15+	Unacceptable	STOP IMMEDIATELY and contact your WHS Advisor or the Incident Report and Support Hotline to plan a coordinated response in consultation with key subject matter experts to eliminate or control exposure to the hazard.	Principal to advise staff about eliminating or reducing the risk, and contact: <ul style="list-style-type: none"> Director Educational Leadership for review Health, Safety & Staff Wellbeing Directorate for review Legal as required. 	Executive Director or delegate to advise staff about eliminating or reducing the risk, and contact: <ul style="list-style-type: none"> Health, Safety & Staff Wellbeing Directorate for review Legal as required.

Hierarchy of controls

CONTROL	EFFECTIVENESS	DESCRIPTION	EXAMPLES
ELIMINATION	BEST	Eliminate the hazard entirely.	Eliminating the risk of a fall from height by doing the work at ground level.
SUBSTITUTION	VERY GOOD	Substitute the hazard with safer options.	Replacing hazardous cleaning chemicals with equivalent non-toxic products.
ISOLATION	GOOD	Isolate the hazard from causing harm.	Placing a barrier around an area of wet floor as a slipping hazard.
ENGINEERING	GOOD	Use engineering controls to reduce the risk.	Installing guards, rails, or handrails to prevent falls.
ADMINISTRATIVE	POOR	Administrate and document safe work practices.	Training workers in safe work procedures, Safe Operating Procedures.
PPE	WORST	Protect workers with Personal Protective Equipment (PPE).	Providing goggles and gloves to people handling hazardous chemicals.

Need help?

Speak to your [Work Health Safety Advisor](#) for support and advice or contact the Incident Report and Support Hotline on **1800 811 523**.