

Curriculum activity risk assessment

Biological Activities

clever • skilled • creative

Activity scope

This document relates to student participation in Biological Activities as a curriculum activity.

This risk management module relates to every aspect of the handling of biological material for learning purposes. Care must be taken in not only the operational (learning) mode but also in the maintenance (storing) mode, transportation mode and disposal mode. This will include consideration of the appropriate transport of animals, biological material, wastes and used instruments to and from an educational institution and/or within an educational institution.

Maintenance processes covered by this schedule include:

- ordering
- storage
- preparation
- labelling
- disposal.

Operational processes covered by this schedule include:

- handling
- distribution
- first aid
- disposal and cleaning.

Some biological activities occur in laboratories and require the use of chemicals and laboratory equipment. Others occur on field trips and some involve the use of animals. Teachers should refer to the relevant risk assessments.



Teachers/leaders:

Activity description:

Start date:

Finish date:

No of students (approx.):

Class groups:

Supervision ratio (approx.):



Queensland Government

Risk level

The actual risk level will vary according to the specific circumstances of the activity and these **must** be considered when assessing the inherent risk level and planning the activity. As a starting point, ask the following questions:

- Which students will be involved?
- Where will the students be?
- What will the students be doing?
- Who will be leading the activity?
- What will the students be using?

Inherent risk level		Action required / approval
<input type="checkbox"/>	Low	<p>Biological activities in which controls are in place to prevent students being exposed to any of the hazards included in this module or otherwise identified; Specifically excludes any activity involving dissecting or handling or animals</p> <p><input checked="" type="checkbox"/> Manage through regular planning processes.</p>
<input type="checkbox"/>	Medium	<p>Biological activities in which students are exposed to any of the hazards included in this module or otherwise identified (e.g. relating to hazardous substances, handling and dissecting animals procured as laboratory specimens or growing cultures under controlled circumstances according to allowed protocols)</p> <p><input checked="" type="checkbox"/> Record controls in your planning documents and/or complete this <i>Curriculum Activity Risk Assessment</i>.</p> <p><input checked="" type="checkbox"/> Consider obtaining parental permission.</p>
<input type="checkbox"/>	High	<p>Activities in which biological hazards may be unknown (e.g. growing cultures in uncontrolled environments or the handling and/or dissection of any animal not procured by the school as a laboratory specimen)</p> <p><input checked="" type="checkbox"/> A <i>Curriculum Activity Risk Assessment</i> must be completed.</p> <p><input checked="" type="checkbox"/> Principal or delegated Deputy Principal or Head of Program (i.e. HOD, HOSES, HOC) to review and approve risk assessment.</p> <p><input checked="" type="checkbox"/> Obtaining parental permission is recommended.</p> <p><input checked="" type="checkbox"/> Once approved, activity details are to be entered into the <i>School Curriculum Activity Register</i>.</p>

Listed below are the minimum recommendations for this type of activity. For any items ticked 'No', provide further information regarding the additional or alternate controls to be implemented for the safe conduct of the activity.

Minimum supervision	
<p>Adequate adult supervision is to be provided. In determining what is adequate, consider the number of students, their individual needs, and the nature of the activity. If an adult other than a registered teacher is engaged for instruction, a teacher should be present to take overall responsibility. Blue Card requirements must be adhered to.</p>	
<input type="checkbox"/>	Registered teacher with minimum qualifications as outlined below
OR	
<input type="checkbox"/>	An adult with minimum qualifications as outlined below, in the presence of a registered teacher.
Further information:	

Minimum qualifications

The qualifications listed in this section are minimums for each type of situation. Leaders are encouraged to seek training to raise their qualification level above the minimum listed.

Current first aid qualifications including Cardio Pulmonary Resuscitation (CPR) or ready access to first aid facilities, including qualified personnel.

[Blue Card](#) requirements met

Low - Biological activities in which controls are in place to prevent students being exposed to any of the hazards included in this module or otherwise identified; Specifically excludes any activity involving dissecting or handling or animals

For a registered teacher or a leader other than a registered teacher:

knowledge of the activity and its potential hazards

Medium - Biological activities in which students are exposed to any of the hazards included in this module or otherwise identified (e.g. relating to hazardous substances, handling and dissecting animals procured as laboratory specimens or growing cultures under controlled circumstances according to allowed protocols)

Refer to [SCM-PR-011: Animal Ethics and Welfare in Schools](#)

For a registered teacher or a leader other than a registered teacher:

competence in the teaching of the activity

A teacher could demonstrate their competency through their:

- knowledge of the activity and the associated hazards and risks
- experience (i.e. previous involvement) in undertaking the activity
- demonstrated ability and/or expertise to undertake the activity
- possession of qualifications related to the activity.

High - Activities in which biological hazards may be unknown (e.g. growing cultures in uncontrolled environments or the handling and/or dissection of any animal not procured by the school as a laboratory specimen)

For a science registered teacher:

competence (demonstrated ability) in the activity

A teacher could demonstrate their competency through their:

- knowledge of the activity and the associated hazards and risks
- experience (i.e. previous involvement) in undertaking the activity
- demonstrated ability and/or expertise to undertake the activity
- possession of qualifications related to the activity.

For a leader other than a registered teacher:

appropriate qualifications related to the activity.

Further information:

Minimum equipment/facilities <i>If 'No' is ticked, provide further information.</i>	Yes	No
First aid kit suitable for activity	<input type="checkbox"/>	<input type="checkbox"/>
Communication system: <input type="checkbox"/> phone-line at location <input type="checkbox"/> mobile phone <input type="checkbox"/> walkie talkies/UHF radio <input type="checkbox"/> student/adult messenger Other:		
Sun safety equipment (hat, sunscreen, shirt etc)	<input type="checkbox"/>	<input type="checkbox"/>
Drinking water (students should not share drinking containers)	<input type="checkbox"/>	<input type="checkbox"/>
Protective equipment appropriate for the particular activity, such as safety glasses and laboratory coats or aprons, should be worn by all persons involved in the activity.	<input type="checkbox"/>	<input type="checkbox"/>
Further information:		

Hazards/risks	Control measures	Yes	No	Implementation plan / Additional controls
	according to instructions in ‘Aspects of Science Management: A Reference Manual’ .			
Dust, gas or fumes <ul style="list-style-type: none"> Smoke Inhalation 	<ul style="list-style-type: none"> Ensure that appropriate personal protective equipment (such as facemasks and breathing apparatus) is worn. Ensure there is adequate ventilation. Ensure that extraction bags are fitted to equipment. Use a fume cupboard. 	<input type="checkbox"/>	<input type="checkbox"/>	
Electricity <ul style="list-style-type: none"> Electric shock Burns 	<ul style="list-style-type: none"> Ensure that guidelines in ‘Aspects of Science Management: A Reference Manual’ are adhered to. 	<input type="checkbox"/>	<input type="checkbox"/>	
Environmental conditions <ul style="list-style-type: none"> Temperature Weather Surfaces Surrounds 	<ul style="list-style-type: none"> Ensure that the location and weather are suitable for the activity, and for the storage, transportation and disposal of the biological material and chemicals used. 	<input type="checkbox"/>	<input type="checkbox"/>	
Hazardous substances <ul style="list-style-type: none"> Corrosive chemicals Flammable chemicals Carcinogenic chemicals Volatile chemicals Heavy metals 	<ul style="list-style-type: none"> Ensure that guidelines in ‘Aspects of Science Management: A Reference Manual’ and risk assessment module: Management and Storage of Hazardous Science Substances are adhered to, including with regard to ordering, storage, preparation, labelling, disposal and cleaning. 	<input type="checkbox"/>	<input type="checkbox"/>	
Heat sources <ul style="list-style-type: none"> Hot plates Flames Friction heat Conduction 	<ul style="list-style-type: none"> Follow ‘Aspects of Science Management: A Reference Manual’. Ensure that only competent personnel operate and maintain radiation and ionising sources and equipment (e.g. UV lamps). 	<input type="checkbox"/>	<input type="checkbox"/>	
Sharp implements or objects <ul style="list-style-type: none"> Knives Needles 	<ul style="list-style-type: none"> Ensure that there is correct management and disposal of waste dissection materials and 'sharps' (i.e. needles, scalpels etc.) 	<input type="checkbox"/>	<input type="checkbox"/>	
Students <ul style="list-style-type: none"> Special needs 	<ul style="list-style-type: none"> Obtain parental permission, including relevant medical information. 	<input type="checkbox"/>	<input type="checkbox"/>	

Hazards/risks	Control measures	Yes	No	Implementation plan / Additional controls
<ul style="list-style-type: none"> Medical conditions Student numbers High risk behaviours 	<ul style="list-style-type: none"> When students with medical conditions are involved, ensure that relevant medical/emergency plans and medications are readily available (insulin, Ventolin, EpiPen, etc.) Refer to Individual education plan/Educational adjustment plan/Behaviour management plan and other student documents. Where necessary, obtain advice from relevant advisory visiting teachers or specialist teachers. Ensure there is adequate adult supervision. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Tools, plant or equipment	<ul style="list-style-type: none"> Ensure that all persons involved in the activity wear appropriate protective clothing. This includes enclosed footwear, hats or hard hats, gloves, long-sleeved shirts etc. Ensure that suitable safety equipment is available. Ensure that planning and preparation takes into account guidelines in 'Aspects of Science Management: A Reference Manual'. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Additional control measures

These would relate to the specific student needs, location and conditions in which you are conducting your activity.

Hazards/risks	Control measures

Submitted by:	Date:
List the names of those who were involved in the preparation of this risk assessment.	

Approval	
<input type="checkbox"/>	Approved as submitted.
<input type="checkbox"/>	Approved with the following condition(s):
<input type="checkbox"/>	Not approved for the following reason(s):
By:	Designation:
Signed:	Date:
Once approved, activity details should be entered into the <i>School Curriculum Activity Register</i> by administrative staff.	Reference no.

Monitor and review <i>To be completed during and/or after the activity and/or at the completion of the series of activities.</i>	Yes	No
Are the control measures still effective?	<input type="checkbox"/>	<input type="checkbox"/>
Have there been any changes?	<input type="checkbox"/>	<input type="checkbox"/>
Are further actions required?	<input type="checkbox"/>	<input type="checkbox"/>
Details:		

Important links

- HLS-PR-003: First Aid
<http://education.qld.gov.au/strategic/eppr/health/hlspr003/>
- HLS-PR-004: Infection Control and Management of Prescribed Contagious Conditions
<http://education.qld.gov.au/strategic/eppr/health/hlspr004/>
- Infection Control Guideline:
http://education.qld.gov.au/health/pdfs/healthsafety/infection_control_guideline.pdf
- HLS-PR-005: Health and Safety Incident Recording and Notification
<http://education.qld.gov.au/strategic/eppr/health/hlspr005/>
- HLS-PR-006: Managing Occupational Risks with Chemicals
<http://education.qld.gov.au/strategic/eppr/health/hlspr006/hs16.pdf>
- HRM-PR-010: Working with Children Check – Blue Cards
<http://education.qld.gov.au/strategic/eppr/hr/hrmpr010/>
- SCM-PR-002: School Excursions
<http://education.qld.gov.au/strategic/eppr/schools/scmpr002/>
- SCM-PR-011: Animal Ethics and Welfare in Schools
<http://education.qld.gov.au/strategic/eppr/schools/scmpr011/>
- Safe Operation of Laboratory Equipment
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/safelabequip.pdf>
- Handling Live Animals in a School Setting
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/liveanimals.pdf>
- Chemical Hazards
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/chemhazards.pdf>
- Management and Storage of Hazardous Science Substances
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/hazsciencematerials.pdf>
- Maintenance and Operation of a Safe Laboratory
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/safelab.pdf>
- Maintenance and Operation of a Safe Work Area Outside the Laboratory
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/safework.pdf>
- Safe Work Practices Conducting Science Experiment Activities
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/scienceexperiment.pdf>
- Aspects of Science Management: A Reference Manual for Schools
<http://education.qld.gov.au/health/pdfs/healthsafety/aspects-science-mgmt.pdf>
- Creating Healthier Workplaces
<http://education.qld.gov.au/health/index.html>
- Office of the Gene Technology Regulator, Department of Health and Aging
<http://www.health.gov.au/internet/ogtr/publishing.nsf/Content/home-1>
- Department of Agriculture, Fisheries and Forestry
<http://www.daff.gov.au/>

Further information

For further information on incorporating risk management strategies into curriculum activity planning refer to [HLS-PR-012 Managing Risks in Curriculum Activities](#) and the associated list of [Curriculum Activity Risk Assessment Guidelines](#). (See: <http://education.qld.gov.au/strategic/eppr/health/hlspr012/index1.html>)

For further support with risk management training and advice, contact trained staff in schools such as Workplace Health and Safety Officers (WHSOs) and Workplace Health and Safety Representatives (WHSRs), and regional staff such as Senior Health and Safety Consultants.

Uncontrolled copy. Refer to *HLS-PR-012: Curriculum Activity Risk Management* at <http://education.qld.gov.au/strategic/eppr/health/hlspr012/> for master.