

# Curriculum activity risk assessment

## Metalworking

clever • skilled • creative

### Activity scope

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

Metalwork refers to activities using metal or metal-based products for the purpose of fabrication, construction and other associated project and design activities.

Processes covered by this module include:

- marking
- folding
- developing
- drilling
- riveting
- joining
- edge treatment
- assembling
- surface finishing
- turning
- cutting
- seaming
- designing
- soldering
- chiselling
- milling
- CAD
- CAM
- engraving



This document must be read in conjunction with the [Managing a Practical ITD Workspace](#) and [Fixed Machinery](#) risk assessments.

|                       |              |                              |
|-----------------------|--------------|------------------------------|
| Teachers/leaders:     |              |                              |
| Activity description: |              |                              |
| Start date:           | Finish date: | No of students (approx.):    |
| Class groups:         |              | Supervision ratio (approx.): |

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

| Inherent risk level      |  | Action required / approval  |
|--------------------------|--|---|
| <input type="checkbox"/> | <b>Medium</b><br>Some chance of an incident and injury requiring first aid:<br><i>Years Seven – Nine curriculum, basic tools and processes</i>                           | <input checked="" type="checkbox"/> Record controls in your planning documents and/or complete this <i>Curriculum Activity Risk Assessment</i> .<br><input checked="" type="checkbox"/> Consider obtaining parental permission.   |
| <input type="checkbox"/> | <b>High</b><br>Likely chance of a serious incident or injury requiring medical treatment:<br><i>Years Seven – Twelve curriculum, more than basic tools and processes</i> | <input checked="" type="checkbox"/> A <i>Curriculum Activity Risk Assessment</i> must be completed.<br><input checked="" type="checkbox"/> Principal or delegated Deputy Principal or Head of Program (i.e. HOD, HOSES, HOC) to review and approve risk assessment.<br><input checked="" type="checkbox"/> Obtaining parental permission is recommended.<br><input checked="" type="checkbox"/> Once approved, activity details are to be entered into the <i>School Curriculum Activity Register</i> . |

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   |
|---|
| 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. <a href="#">Blue Card</a> requirements <b>must</b> be adhered to. |
| <input type="checkbox"/> Registered teacher with minimum qualifications as outlined below<br><b>OR</b><br><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

**Medium** — Some chance of an incident and injury requiring first aid: *Years Seven – Nine curriculum, basic tools and processes*

### For a registered teacher:

experience (previous involvement) in basic hand-operated tools and equipment

**OR**

competence (demonstrated ability) in the use of tools and equipment to partake in extended activities

**OR**

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

relevant qualifications in a sheet metal industry.

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** — Likely chance of a serious incident or injury requiring medical treatment: *Year Seven – Twelve curriculum, more than basic tools and processes*

### For a registered teacher with qualifications in Industrial Technology Design (ITD):

experience (previous involvement) in basic hand-operated tools and equipment

**OR**

competence (demonstrated ability) in the use of tools and equipment to partake in extended activities

**OR**

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

relevant qualifications in a sheet metal industry.

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.

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"/> |
| Maintenance and service of equipment to manufacturer's specifications; access to the equipment maintenance registers  | <input type="checkbox"/> | <input type="checkbox"/> |
| Communication system: <input type="checkbox"/> phone-line at location <input type="checkbox"/> mobile phone<br><input type="checkbox"/> walkie talkies/UHF radio <input type="checkbox"/> student/adult messenger<br>Other: |                          |                          |
| Appropriate and maintained fire safety equipment (extinguisher, blanket, evacuation plan)   | <input type="checkbox"/> | <input type="checkbox"/> |
| Drinking water (students should not share drinking containers)  | <input type="checkbox"/> | <input type="checkbox"/> |
| Safety glasses and appropriate fully-enclosed footwear that protects against falling sharp tools, equipment or project materials  | <input type="checkbox"/> | <input type="checkbox"/> |
| <a href="#">Standard Operating Procedures</a> clear and present for ALL equipment used  | <input type="checkbox"/> | <input type="checkbox"/> |
| Guards and safety devices designed for the portable equipment   | <input type="checkbox"/> | <input type="checkbox"/> |
| Fixed residual current device on all portable equipment; For further information refer to: <a href="#">quick reference guide for specified electrical equipment</a> .   | <input type="checkbox"/> | <input type="checkbox"/> |
| Adequate lighting and ventilation   | <input type="checkbox"/> | <input type="checkbox"/> |
| Suitable non-slip floor surface   | <input type="checkbox"/> | <input type="checkbox"/> |
| Material safety data sheets (MSDS) for all chemicals stored in the workshop   | <input type="checkbox"/> | <input type="checkbox"/> |
| Clearly marked work areas delineated with yellow paint or similar material  | <input type="checkbox"/> | <input type="checkbox"/> |
| Suitable and sufficient waste bins  | <input type="checkbox"/> | <input type="checkbox"/> |
| Emergency stop buttons on equipment where required  | <input type="checkbox"/> | <input type="checkbox"/> |
| Properly installed guards and safety devices on all equipment where necessary   | <input type="checkbox"/> | <input type="checkbox"/> |
| Further information:  |                          |                          |

## Hazards and suggested control measures

All persons engaging in this activity should:

- identify the hazards, including any additional hazards not mentioned here
- assess their significance
- manage the potential risks.

Listed below are indicative hazards/risks and suggested control measures. They are by no means exhaustive lists. After checking these, add details of any other identified hazards/risks and additional controls you intend to implement. Hazards/risks

| Hazards/Risks   | Control measures   | Yes                      | No                       | Implementation plan / Additional controls |
|---|--|--------------------------|--------------------------|---|
| <b>Environmental conditions</b> <ul style="list-style-type: none"> <li>• Workshop environment</li> </ul>                        | Complete the Curriculum Activity Risk Assessment <a href="#">Managing a Practical ITD Workspace</a> .  | <input type="checkbox"/> | <input type="checkbox"/> |   |
| <b>Heat</b> <ul style="list-style-type: none"> <li>• Friction</li> <li>• Elements</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Handle equipment carefully during use.</li> <li>• Remain aware of your surroundings.</li> <li>• Handle materials carefully after use on equipment.</li> <li>• Wear appropriate personal protective equipment as needed.</li> </ul>  | <input type="checkbox"/> | <input type="checkbox"/> |   |
| <b>Manual handling</b> <ul style="list-style-type: none"> <li>• Lifting Equipment and materials</li> </ul>                      | <ul style="list-style-type: none"> <li>• Undertake a risk management process in order to prevent or minimise the risk of injuries caused by manual tasks.</li> </ul>   | <input type="checkbox"/> | <input type="checkbox"/> |   |
| <b>Noise</b> <ul style="list-style-type: none"> <li>• Continuous, repetitive noise</li> <li>• One-off noise exposure</li> </ul> | <ul style="list-style-type: none"> <li>• Provide personal hearing protection and provide training for relevant staff in the correct use and storage of the hearing protection.</li> <li>• Minimise the number of students working at one time.</li> <li>• Research and determine noise levels of equipment prior to their purchase and try to 'buy quiet.'</li> <li>• Redesign tasks so that staff and students are not exposed to loud noise over extended periods.</li> <li>• Repair and maintain equipment and machinery to reduce their noise levels.</li> <li>• Refer to <a href="#">Health and Safety: Noise</a> for further information.</li> </ul> | <input type="checkbox"/> | <input type="checkbox"/> |   |

| Hazards/Risks  | Control measures  | Yes  | No   | Implementation plan / Additional controls |
|--|---|--|--|---|
| <b>Students</b> <ul style="list-style-type: none"> <li>• Student numbers</li> <li>• Special needs</li> <li>• High risk behaviours</li> <li>• Medical conditions</li> </ul> | <ul style="list-style-type: none"> <li>• Obtain parental permission, including relevant medical information.</li> <li>• When students with medical conditions are involved, ensure that relevant medical/ emergency plans and medications are readily available (insulin, Ventolin, EpiPen etc.)</li> <li>• Refer to Individual education plan/Educational adjustment plan/Behaviour management plan and other student documents.</li> <li>• Where necessary, obtain advice from relevant advisory visiting teachers or specialist teachers.</li> <li>• Ensure there is adequate adult supervision.</li> </ul>  | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/>   | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/>                                 |   |
| <b>Tools, plant or Equipment</b>   | <ul style="list-style-type: none"> <li>• Ensure that loose jewellery and clothing is secured or removed.</li> <li>• Ensure that long hair is tied back.</li> <li>• Have clearly designated work areas.</li> <li>• Monitor use of tools and equipment.</li> <li>• Check equipment for damage before lessons.</li> <li>• Regularly maintain and sharpen equipment where appropriate.</li> <li>• Refer to and follow <a href="#">Standard Operating Procedures</a> for all equipment.</li> <li>• Avoid the use of extension leads where possible.</li> <li>• Securely fix any jobs to a bench, table, floor or other suitable surface.</li> <li>• Ensure that students are made aware of the possible dangers when processing modern corrosive resistant, composite or synthetic materials.</li> </ul> | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/> | <input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/><br><br><input type="checkbox"/> |   |

| Hazards/Risks | Control measures  | Yes                      | No                       | Implementation plan / Additional controls |
|---------------|---|--------------------------|--------------------------|---|
|               | <ul style="list-style-type: none"> <li>Processing techniques could result in sharp edges, and therefore waste materials should be disposed of carefully.</li> </ul> | <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 |
|---------------|------------------|
|               |                  |

|   |              |
|---|--------------|
| <b>Submitted by:</b>  | <b>Date:</b> |
| 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.                             |

| <b>Monitor and review</b> <i>To be completed during and/or after the activity and/or at the completion of the series of activities.</i> | <b>Yes</b>               | <b>No</b>                |
|---|--------------------------|--------------------------|
| 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](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-013: Developing a Sun Safety Strategy  
<http://education.qld.gov.au/strategic/eppr/health/hlspr013/>
- HRM-PR-010: Working with Children Check – Blue Cards  
<http://education.qld.gov.au/strategic/eppr/hr/hrmpr010/>
- HLS-PR-006: Managing Occupational Risks with Chemicals  
<http://education.qld.gov.au/strategic/eppr/health/hlspr006/hs16.pdf>
- Standard Operating Procedures for EQ sites  
<http://education.qld.gov.au/health/safety/hazards/equip-resources.html#sop>
- Hearing Protection Fact Sheet  
<http://education.qld.gov.au/health/pdfs/healthsafety/hearing-protection-factsheet.pdf>
- 2004 Noise Code of Practice  
[http://www.deir.qld.gov.au/workplace/resources/pdfs/noise\\_code2004.pdf](http://www.deir.qld.gov.au/workplace/resources/pdfs/noise_code2004.pdf)
- Managing a Practical ITD Workspace  
<http://education.qld.gov.au/strategic/eppr/health/hlspr012/resources/pracitdworkspace.pdf>

### 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.