Risk assessment scenario: Industrial Technology

In *Industrial technology* you will learn about risk identification and minimisation strategies and learn to identify and respond to OH&S issues to ensure a safe work environment. This activity allows you to reflect on a hazardous situation and to suggest appropriate risk minimisation strategies.

This material addresses aspects of the following syllabus outcome:
5.1.1 A student identifies, assesses and manages the risks and OH&S issues associated with the use of a range of materials, hand tools, machine tools and processes.
Extract from: Stage 4–5 Industrial Technology Syllabus © Board of Studies NSW 2003.

Scenario

Lee is currently working on the frame of a footstool she has designed. The corners of the frame are joined using mortice and tenon joints.

It is 3.15 pm on Friday afternoon and the bell to finish school is about to ring. The teacher tells the class to pack up their projects.

Fig 1: Cramping materials

Lee is annoyed, having tried all lesson to fit the mortice and tenons, and to assemble the frame. A small slice off the face of one tenon will allow the final joint to slide together. The tools are on the bench and it will only take a moment.

Lee knows the rules about cramping materials but hurriedly holds the timber to the bench with her hand and using the chisel takes two or three shavings.

Activity 1

1. Read the scenario carefully. What is likely to happen in this situation?

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2. Identify the hazard in this situation.

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3. Assess the risk of this situation. Consider:

   - the likelihood of the hazard causing an injury or illness
   - the likely severity of any injury or illness that may occur.

   Using the following chart give the situation a hazard rating.

How dangerous is the hazard you have found?

Find the highest priorities!
For each hazard, think about:

1 How severely could it hurt someone *or* how ill could it make someone?	2 How likely is it to be that bad? ++ **very likely** could happen any time	++ **likely** could happen sometime	– **unlikely** *could* happen, but very rarely	– – **very unlikely** *could* happen, but probably never will
kill or cause permanent disability or ill health	1	1	2	3
!!! long term illness or serious injury	1	2	3	4
!! medical attention and several days off work	2	3	4	5
! first aid needed	3	4	5	6

The numbers reflect the importance of each hazard. The most critical hazards must be dealt with immediately and plans made to deal with lesser hazards over time, although often a low level hazard is simple to address and so is worth dealing with quickly.

The numbers in the chart show how important it is to do something:
1 it is extremely important to do something about this hazard as soon as possible
6 this hazard may not need your immediate attention.

Hazard rating: _____

3. The next step in the risk management process is to find ways to eliminate or control the risk. How could the risk of this type of accident be further reduced?

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4. The result of this scenario was that Lee's chisel slips and runs across the top of two of her fingers. The doctor says the wound will require five stitches. The bloodstains can be sanded off the timber when Lee is fit to recommence practical work.

   The fourth step in risk management is monitoring and reviewing risk controls.
   What actions do you think could be taken as a result of this scenario?

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