

National Certificate in Building, Construction and Allied Trades Skills (BCATS)
Teacher Information & Resources

**Demonstrate knowledge of and
apply safe working practices in a
BCATS environment**

Unit Standard – 24354

Level 2, Credit 4





Teaching and assessment tips

Intent – The intent of the unit standard is that the learner is able to

- demonstrate knowledge of health and safety legislation and procedures in a BCATS environment and
- apply these procedures to ensure the safety of themselves, others and equipment.

Unit standard interpretation

Applying workplace practice in the event of a fire, accident, chemical spillage and emergency is to be simulated for one of these types of emergencies.

“Induction training” refers to workshop and site rules and procedures.

The skills and knowledge required for this unit standard is assessed using the worksheet provided and completing the Assessor Observation sheet. Supporting evidence for safe working practices can be used from the power tools and project related unit standards.

We would encourage you to use other unit standards that your student is completing, to gather evidence for applying safe working practices, as part of the BConstructive programme.

Assessment



Assessment of this unit standard consists of:

- Completion of the worksheet and
- Completion of the Assessor Observation sheet

Worksheet US 24354

Student Name: _____

- 1.** What is the main purpose of the Health and Safety at Work Act?

- 2.** What is the main purpose of the Health and Safety at Work Regulations?

- 3.** What are your responsibilities as a “worker” under the Health and Safety at Work Act?

- 4.** What is a person conducting a business or undertaking’s (PCBUs) main responsibility under the Health and Safety at Work Act?



5. Complete the following chart for your BCATS environment:

	A. Potential hazard (Complete all this column)	B. Possible control measure (Complete at least 4 in this column)
Electrical		
Chemical		
Fire		
Fumes		
Gas		
Compressed air		
Noise		
Material		
Falling		
Lifting		



6. Identify the meanings of the following signage:





7. Identify hazards associated with each of the following safety issues.
Loose clothing:

Long hair:

Non-safety footwear:

Wearing jewellery:

Poor lifting technique:



Handling or moving of heavy objects:

Occupational overuse syndrome:

Heights:

Not enough training:

8. Describe the steps you should follow in your workplace in the event of:

a) Fire

b) Earthquake

c) Accident:

d) Chemical spill:



Worksheet Model Answers

1. What is the main purpose of the Health and Safety at Work Act?

To secure the health and safety of workers and workplaces; to ensure everyone goes home safely at the end of each day.

2. What is the main purpose of the Health and Safety at Work Regulations?

To set minimum standards for the management of particular hazards where alternative control measures are not always effective.

3. What are your responsibilities as a “worker” under the Health and Safety at Work Act?

Following the health and safety rules and procedures of your workplace (or school or training establishment).

Taking reasonable care

Ensuring your own and others’ health and safety in the environment.

Identifying and reporting hazards, risks, accidents and injuries.

Taking steps to eliminate or minimise these hazards.

4. What is a person conducting a business or undertaking’s (PCBUs) main responsibility under the Health and Safety at Work Act?

To ensure, as far as reasonably practicable, the health and safety of the workers it employs, engages, influences or directs.

5. Complete the following chart for your BCATS environment:

	A. Potential hazard (Complete all this column)	B. Possible control measure (Complete at least 4 in this column)
Electrical	<i>Electric leads across floor</i>	<i>Install leads close to activity; run leads overhead</i>
Chemical	<i>Chemical spill</i>	<i>Adequate storage, training</i>
Fire	<i>Combustible material not stored properly</i>	<i>Keep work area clean and tidy</i>
Fumes	<i>Fumes from welding plated materials</i>	<i>Respiratory protection, ventilation</i>
Gas	<i>Damaged cylinders</i>	<i>Store cylinders correctly</i>
Compressed air	<i>Damaged hoses</i>	<i>Regular check for damage</i>
Noise	<i>Exposure to noise</i>	<i>Hearing protection</i>

	A. Potential hazard (Complete all this column)	B. Possible control measure (Complete at least 4 in this column)
Material	<i>Lengths of timber across access route</i>	<i>Restack/reposition timber</i>
Falling	<i>Falling from ladder</i>	<i>Correct technique</i>
Lifting	<i>Back strain from lifting heavy objects</i>	<i>Get help, use aid, correct technique</i>

6. Identify the meanings of the following signage:



Beware of Forklifts in use.



Maintain clear walkways. Keep aisles clear.



Keep hands clear of moving machinery. Ensure that all guards are in place.



Fire action chart- what to do in the event of a fire.

7. Identify hazards associated with each of the following safety issues.

Loose clothing:

Caught in moving spinning work or machines (pulled into machines), strangulation, catching on fire.

Long hair:

Catching in spinning work or machinery, ripping hair out or scalping.

Non-safety footwear:

Foot damage - crushing or kicking injuries, Sprains or strains, body injuries caused by slips or falls.

Wearing jewellery:

Catching in machinery, (crushing or amputation of fingers), heat transfer.

Poor lifting technique:

Leg and back damage, Back strain, Crushing injuries.

Handling or moving of heavy objects:

Leg and back damage, crushing injuries to yourself or others.

Occupational overuse syndrome:

Arthritis, RSI or OOS, Sore joints and tendons

Heights:

Falling.

Not enough training:

Incorrect use of tools, processes causing harm to self or others.

8. Describe the steps you should follow in your workplace in the event of:

a) Fire:

Sound the alarm.

Dial 111.

Move quickly away from the fire to the agreed assembly point

b) Earthquake:

Seek shelter until the earthquake ends.

Assemble at the designated assembly point.

Count personnel to ensure that everyone is there.

c) Accident:

Seek immediate first aid treatment.

If injury is serious, call an ambulance immediately and ensure first aid is done while waiting for it to arrive.

d) Chemical spill:

Immediately inform your supervisor who will determine:

- if the area should be evacuated;*
- if it is safe to clean it up;*
- how to clean it up; or*
- if an appropriately qualified person needs to be brought in to undertake the clean up.*

Examples of **oral assessment questions**

1. Define a hazard.

A hazard can be described as anything that could cause you or someone else any form of harm, including how a person is behaving.

2. What should you do if you feel that your work place is unhealthy or unsafe?

Tell your supervisor the problem.

If your supervisor does not deal with the problem or you feel the problem has not been fixed, contact the supervisor's senior or the company's health and safety representative.

If the unsafe situation still exists, contact WorkSafe NZ for further advice.

3. What should you do if a hazard is identified?

Report it to a supervisor.

Assess the risk: understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening.

Control risks by taking steps to eliminate or minimise the hazard.

Assess the residual risk.

Review control measures.

4. Describe or demonstrate the procedures required to safely lift heavy objects.

Test the weight and, if possible, get help.

Use a trolley or any other mechanical lifting device to assist with moving the object.

If lifting the object by yourself, position yourself as close to the object as possible, bend your knees, look up and keep your back straight. Hold the load as close as possible to your body and stand up using your leg muscles.

5. Demonstrate and describe the correct carrying techniques required to move a sheet of plywood.

Carry the sheet with the load evenly distributed between two people standing on the same side of the sheet.

6. Identify the three ingredients to be present before any combustion or fire can take place:

Oxygen.

Fuel.

Heat.

- 7.** What sort of fire extinguisher should be used for electrical fires?

BCF dry powder or CO₂ extinguishers.

- 8.** Identify or describe the following actions in the event of a fire:

- Where the extinguishers are and how to use them.
- The location of fire alarms and how to use them.
- Where the fire escapes are.
- The evacuation and assembly drill.

Candidate to identify and describe the appropriate actions according to work place set up.

- 9.** Why should compressed air never be directed at anyone?

Eyes and ear drums can be blown out or perforated.

Air can penetrate the skin and may enter the blood stream through cuts or scratches.

Compressed air penetrating any of the body's orifices can have fatal results.

- 10.** Identify three safety rules that should be followed if working at heights off a ladder

Be aware of wires, electrical devices and live electrical circuits.

Set the ladder up on a firm, even surface to the correct angle. The correct angle of a ladder is one unit of measure out at the base for every four units of height.

Secure the top and bottom of the ladder against sliding. Lash it at the top and bottom or have someone hold the bottom steady.

Ensure that the ladder is long enough. The ladder should project at least 1 metre above the landing; never stand on the top three rungs.

Always face the ladder and use both hands while climbing or descending.

Always wear clean shoes with heels when climbing a ladder.

Never reach sideways from the ladder - move the ladder instead. Over-extending from the side of the ladder shifts the users' centre of balance to a point that the ladder slips, resulting in a very serious fall.

Never stand on or above the third step from the top of any ladder.



Assessor Observation Sheet – Safe working practices (Level 2)

US 24354 Demonstrate knowledge of and apply safe working practices in a BCATS environment (Level 2, Credit 4)

Student Name: _____

Assessor observation:

Assessment criteria: <i>You must have observed the learners behaviour as detailed below.</i>	Comments and/or notes
Learner applies safe working practices in regard to their personal safety. Completed induction training <input type="checkbox"/> Uses protective clothing & PPE <input type="checkbox"/> Respects barriers/signage <input type="checkbox"/> Has been trained for equipment used <input type="checkbox"/>	
Learner applies safe working practices when using machines. Uses fences/guards and other safety devices <input type="checkbox"/> Specify other _____ Equipment is checked <input type="checkbox"/> Equipment used safely <input type="checkbox"/>	
Working areas kept clean/clear: walkway <input type="checkbox"/> floor <input type="checkbox"/> workbench <input type="checkbox"/>	
Learner has taken part in an emergency procedure drill (fire, earthquake, etc) <input type="checkbox"/>	
Worksheet completed correctly <input type="checkbox"/>	
Assessor name: Assessor signature: Date:	RESULT: A = Achieved, N = Not Yet Achieved

Assessment Schedule

US 24354 Demonstrate knowledge of and apply safe working practices in a BCATS environment (Level 2, Credit 4)

Outcome 1	Demonstrate knowledge of health and safety legislation as it applies to a BCATS environment	Assessment evidence and judgement
ER 1.1	The purpose of legislation relating to health and safety in the workplace is explained.	Evidence gathered from worksheet Q1, Q2 showing; <ul style="list-style-type: none"> • The purpose of legislation relating to health and safety in the workplace in regards to the Health and Safety at Work Act 2015 and Health and Safety at work Legislation 2016.
ER 1.2	The responsibilities of workers under the Health and Safety at Work Act 2015 are described.	Evidence gathered from worksheet Q3 showing; <ul style="list-style-type: none"> • Worker's responsibility under the H&S at Work Act 2015.
ER 1.3	The responsibilities of a person conducting business or undertaking (ERBU) under the Health and Safety at Work Act 2015 are described.	Evidence gathered from worksheet Q4 showing; <ul style="list-style-type: none"> • Person conducting a business or undertaking's (PCBUs) responsibility under the Health and Safety at Work Act 2015.
Outcome 2	Demonstrate knowledge of health and safety procedure in a BCATS environment	Assessment evidence and judgement
ER 2.1	Hazard identification and risk assessment procedures are described in relation to a specific BCATS environment.	Evidence gathered from worksheet table Q5 showing; <ul style="list-style-type: none"> • Correct risk assessment procedures to follow once a hazard has been identified. Hazards could include: electrical, chemical, fire, fumes, gas, compressed air, noise, material, falling, lifting.
ER 2.2	Warning signs relating to workplace hazards are identified and interpreted.	Evidence gathered from worksheet Q6 showing; <ul style="list-style-type: none"> • Correct identification of warning signs.
ER 2.3	Personal hazards are identified and explained in relation to a BCATS environment.	Evidence gathered from worksheet Q7 showing; <ul style="list-style-type: none"> • Correct personal hazards identified and explained. Personal hazards could include: insufficient training, clothing, hair, footwear, jewellery, lifting, handling, heights, occupational overuse syndrome.
ER 2.4	Hazard control procedures are described for potential hazards at a specific BCATS environment	Evidence gathered from worksheet table Q5 showing; <ul style="list-style-type: none"> • Correct hazard control procedures.
ER 2.5	Workplace practices for action in the event of emergency are explained.	Evidence gathered from worksheet table Q5 showing; <ul style="list-style-type: none"> • Correct actions to take in the event of an emergency.
Outcome 3	Apply safe working practices in a BCATS environment	Assessment evidence and judgement
ER 3.1	Working practices that ensure personal safety are demonstrated.	Evidence gathered from the assessor observation sheet showing; <ul style="list-style-type: none"> • Participated fully in induction training and PPE used correctly. • Protective clothing and barriers used correctly. • Participated fully in training for use of specific machines.
ER 3.2	Safe working practices when using machinery are demonstrated in accordance with workplace practice and manufacturer's instructions.	Evidence gathered from the assessor observation sheet showing; <ul style="list-style-type: none"> • Machinery fences and guards used correctly. • Machinery safety devices used correctly. • Safe operating techniques for machinery demonstrated including wearing PPE
ER 3.3	Work areas are kept clean and free of surplus tools and debris.	Evidence gathered from the assessor observation sheet showing; <ul style="list-style-type: none"> • Walkways, floors, and workbenches in student's work area are clean and free of surplus tools and debris .

ER 3.4	Equipment is inspected and used in accordance with manufacturer's instructions and workplace practice.	Evidence gathered from the assessor observation sheet showing; <ul style="list-style-type: none">• Equipment checked and used correctly.
ER 3.5	Workplace practices in the event of fire, accident, chemical spillage, and emergency are simulated.	Evidence gathered from the assessor observation sheet showing; <ul style="list-style-type: none">• Workplace practices are simulated for fire, accident, chemical spillage, and emergency.