

Power tools

Teacher/Tutor resource



Unit Standard 24350 (v3), Level 2

Identify, select, use and maintain portable power tools for BCATS projects **6** CREDITS



Building and Construction Industry Training Organisation (BCITO)

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Teaching and assessment tips

Purpose

This unit standard credits learners who can identify, select, maintain and use portable power tools for two BCATS projects.

The examples provided in the student resource cover a range of power tools used within the construction industry. To include and describe every power tool would make the student resource very long and tedious. Students are to take your guidance on identifying, selecting, maintaining, and using the appropriate power tools for the task.

Students need to:

- → identify, describe safe use of, select, use and maintain portable power tools for two BCATS projects
- → complete everything safely
- → keep their work area, power tools, and equipment clean and tidy.

Unit Interpretation

Students must be able to identify, describe safe use of, and select **eight** power tools for their two BCATS projects. They must provide evidence they used and maintained at least **four** of them to complete their projects. Please see the Assessment Schedule at the end of this document for more-detailed requirements.

The unit standard does not specify which power tools must be used. This is to provide flexibility to choose power tools appropriate for the two chosen projects.

You may wish to give your students a work diary to help them record the processes and problem solving that occurs throughout their projects. A work diary template is available in the 'Level 2 generic resources' folder on www. bconstructive.org.nz and in the teacher resources on www.myBCITO.nz. You can alternatively source or design your own.

The completed Knowledge Assessment Sheet and photographic or other evidence to show that two BCATS projects have been completed must be attached to the Assessor Observation Sheet.

Assessment

Information to support assessment decisions should, wherever possible, be collected naturally as the BCATS project progresses.

Assessment of this unit standard consists of:

- → completion of the Knowledge Assessment Sheet and
- \rightarrow completion of two BCATS projects using power tools and
- $\ \ \, \rightarrow \ \ \, \text{completion of the Assessor Observation Sheet}.$

Alignment with other unit standards

Developing programmes that integrate teaching and learning helps to provide students with meaningful and manageable learning opportunities. The following unit standards are not an exhaustive list of which you could include in your programme and nor should one feel obligated to offer all as linked units. Other unit standards you include will depend on your overall programme of study and what best meets your learners' needs.

Other standards that could be offered concurrently include:

12932: Construct timber garden furniture as BCATS projects

12933: Complete minor concrete works as a BCATS project

12935: Construct a spaced residential timber deck up to one metre high

as a BCATS project

12938: Lay paving blocks as a BCATS project

12939: Construct a basic retaining wall as a BCATS project

25921: Make a cupboard with a drawer as a BCATS project

31812: Complete a BCATS project

The projects specified in the unit standards above would all be appropriate for students' power tools projects.

22607: Read and interpret plans, working drawings and specifications for BCATS projects

Students need to select appropriate power tools for their projects. Knowledge of how to read and interpret plans, working drawings, and specifications will help them determine which ones are needed.

24354: Demonstrate knowledge of health and safety legislation and apply safe working practices in the construction of a BCATS project

Using power tools safely and being safe while they complete their projects can contribute to this unit standard's requirements to apply safe working practices. In addition, none of the project-specific unit standards can be achieved without applying safe working practices.

12927: Demonstrate knowledge of, select, maintain, and use hand tools

for BCATS projects

24351: Identify, select, maintain and use specified fixed machinery in the

construction of BCATS projects

Depending on the projects chosen, hand tools and/or fixed machinery may be needed in addition to power tools. While students may not necessarily complete the theory aspects of the above unit standards while focusing on their power tools unit standard, they should be encouraged to document evidence of other tools and machinery they selected and used.

Assessment Schedule

US 24350 (v3) - Identify, select, use, and maintain portable power tools for BCATS projects (Level 2, Credit 6)

PC 1.3 PC 1.4 PC 1.5 The description identifies methods of safeguarding accordance with the manufacturers' instructions for use. PC 1.5 PC 1.6 The description identifies methods of safeguarding accordance with the manufacturers' instructions. PC 1.6 The description identifies methods of safeguarding accordance with the manufacturers' instructions. PC 1.6 Use portable power tools for the construction of BC fange: four portable power tools used for BCATS page: four portable power fools used for BCATS page: four portable four portable for fools and for BCATS page: four portable four fools used for BCATS page: four fools are used for BCATS page: four fools are used for BCATS page: four fools are used for BCATS page	Identify, describe safe use, and select portable power tools for BCATS projects. Range: eight portable power tools used for BCATS projects. The capabilities and limitations of portable power tools are identified in terms of the manufacturers' instructions for use. Use of tools is described in terms of work operations to be completed. Safe use of each tool is described in accordance with manufacturer's instructions and work place safety requirements. Power tools are selected to meet identified job requirements.	Assessment evidence and judgement Portable power tools refers to electric power tools and pneumatic and battery powered tools that are not fixed and can be carried and used in the hands. Evidence gathered from the Knowledge Assessment Sheet showing: • correct capabilities of eight portable power tools and their limitations. Evidence gathered from the Knowledge Assessment Sheet showing: • accurate description of what eight portable power tools are used for. Evidence gathered from the Knowledge Assessment Sheet showing: • accurate description of safe use of eight power tools. • accurate description of safe use of eight power tools.
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ше 5	THE GESCHIPTION INCHINGS THE THORS OF SALEGUED SCHOOLS THE COURT TO TH	Evidence gathered from the Knowledge Assessment Sheet showing:
ше 5	facturers' instructions.	 correct methods of safe guarding eight portable power tools.
me 2	Items of personal protective equipment for each tool are identified and described in terms of	Evidence gathered from the Knowledge Assessment Sheet showing:
ше 5	nents.	• correct identification of PPE required for eight portable power tools. (PPE may include but is not limited to: hearing protection, eye protection, respiratory protection, body and foot protection.)
	Use portable power tools for the construction of BCATS projects. Range: four portable power tools used for BCATS projects.	Assessment evidence and judgement
2.2	All electrical cords and connections are inspected, set up and used in accordance with	Evidence gathered from the projects and Assessor Observation Sheet:
2.2	s and workplace practice.	 electrical cords were inspected, set up, and used correctly.
000	Tools are used to complete work to meet job requirements.	Evidence gathered from projects and Assessor Observation Sheet showing:
0.0		 four appropriate tools were used correctly to complete the projects.
S. N	Tools and personal protective equipment are used in accordance with manufacturers'	Evidence gathered from the projects and Assessor Observation Sheet showing:
instructions for use, material	instructions for use, materials and workplace safety requirements.	• four tools were used safely, with appropriate PPE and safety guards, to complete the projects.
Outcome 3 Maintain portable power tools.	lols.	Assessment evidence and judgement
PC 3.1 Maintenance procedures are	Maintenance procedures are demonstrated in accordance with manufacturers' instructions	Evidence gathered from the Assessor Observation Sheet showing:
and workplace practice.		• blunt, damaged, or worn components (such as blades and belt sander paper) were replaced.
		 battery-operated power tools' batteries were put onto charge after use
		• compliance tags of tools were checked before use.
PC 3.2 Tools are kept free of rust an	Tools are kept free of rust and dirt, and are stored and maintained in accordance with	Evidence gathered from the Assessor Observation Sheet showing:
manufacturers' instructions and workplace practice.	s and workplace practice.	 tools were cleaned, maintained, and stored correctly.
PC 3.3 Damaged or faulty tools are r	Damaged or faulty tools are reported to supervisor in accordance with workplace practice.	Evidence gathered from the Assessor Observation Sheet showing:
		 any damaged or faulty tool were reported to the teacher/tutor.