

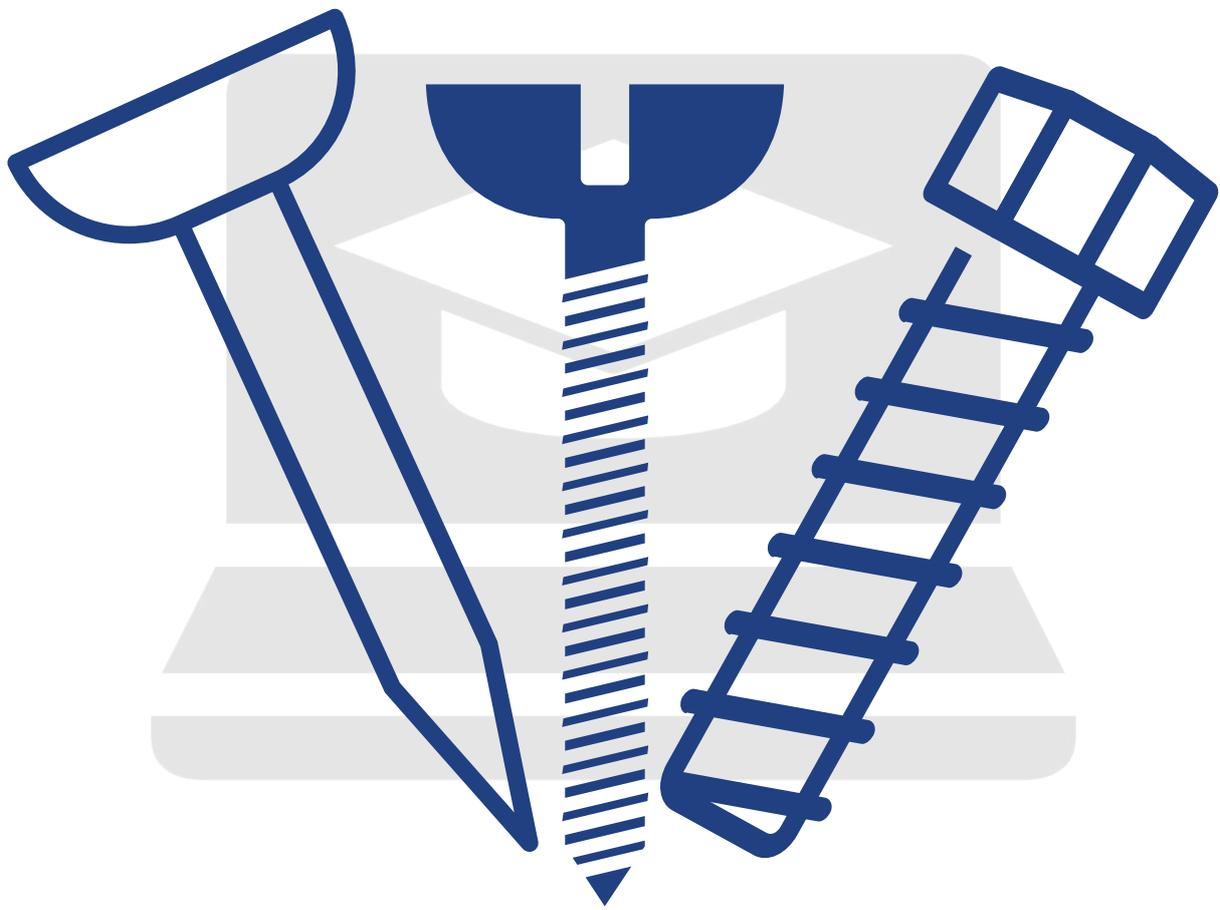


BCATS

BUILDING, CONSTRUCTION
AND ALLIED TRADE SKILLS

Hardware

Teacher/Tutor resource



Unit Standard 25919 (v3), Level 1

Use hardware and fastenings
for a BCATS project.

 CREDITS

BCITO
buildingpeople

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(BCITO)**

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Teaching and assessment tips

Purpose

This unit standard credits learner who can:

- identify and describe different types of hardware and fastenings and
- use at least four of them in a BCATS project.

Students must:

- identify and describe different types of hardware and fastenings
- establish hardware and fastening requirements from job specifications
- select the appropriate hardware and fastenings
- install hardware and fastenings
- complete everything safely
- keep their work area, tools, and equipment clean and tidy.

Students must use at least four types of hardware and fastenings when making a BCATS project. The types are: nails, screws, bolts, common hinges, handles, locks, latches, timber connectors, adhesives, castors.

Assessment

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

Photographic or other evidence to show that hardware and fastenings used on a completed project must be attached to the Assessor Observation Sheet.

Assessment of this unit standard consists of:

- **completion of the Knowledge Assessment and**
- **completion of the Assessor Observation Sheet and**
- **completion of a BCATS project.**

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.

Selecting and using hardware and fastenings can contribute to shared, complementary, or partial assessment of other standards, such as 12932, 25921, and 12927.

Level 1

24356: *Apply elementary procedures and processes for a BCATS project*

To achieve US 24356, students are required to complete a construction project where the student can establish the job requirements, prepare materials, mark out, shape, and join components, and finish the project. Suitable projects for this unit standard include tables, cabinets, seating, storage chests, shelving units, or projects of similar complexity. This will almost certainly require the selection and use of four types of hardware and fastenings.

25920 *Use joints for a BCATS project*

A minimum of two types of joints need be used. These could be incorporated in the design of the project they complete using their knowledge of hardware and fastenings.

Level 2

12927: *Demonstrate knowledge of, select, maintain, and use hand tools used for BCATS projects*

The project they need to complete for US 25919 can be one of two practical projects required for US 12927. While students may not necessarily complete all the theory aspects of the standard as part of completing their project, they should be encouraged to document evidence of the tools they selected and used.

12932: *Construct timber garden furniture as BCATS projects*

One of the projects for this unit standard must be a Cape Cod chair, picnic table, bench with garden tool storage or an item of similar complexity. This will almost certainly require the selection and use of four types of hardware and fastenings.

25921: *Make a cupboard with a drawer for a BCATS project*

This unit fits perfectly as a shared assessment project particularly in conjunction with unit standard but almost any other BCATS suitable project will result in the use of hardware and fasteners that meet the requirements of this unit.

Examples of oral assessment questions

1. What is the major cause of metal failure affecting hardware?

Corrosion.

2. Describe the type of hardware you used on your project.

The answer should be consistent with the hardware on the project.

3. What is the purpose of annular grooves on the shank of a nail?

It increases the holding power of nail.

4. Explain the steps that should be taken to prepare a hole for a screw

Pilot hole, clearance hole, countersink

5. What is the most common hinge used to hang a gate?

Tee hinge or strap hinge.

6. What type of adhesive has the ability to bond to itself?

Contact adhesive

7. What is the full name of the most commonly used synthetic adhesive?

Polyvinyl acetate

8. Where would you find information on the safe use of adhesives?

In the manufacturer's instructions or the product safety data sheet

9. After use what can be done to prevent steel parts of a hand tools going rusty?

Wiping the tool with an oily rag

10. What does the abbreviation RCD stand for and what is it used for?

Residual Current Device. Protects an operator against electric shock

Assessment Schedule

US 25919 (v3) – Use hardware and fastenings for a BCATS project (Level 1, Credit 2)

Candidates are required to complete one specified BCATS project as evidence for assessment against this unit standard. Examples of suitable projects include – tables, rabbit hutches, tool boxes, and projects of similar complexity.

Outcome 1	Identify and describe types of hardware and fastenings and select hardware and fastenings for a BCATS project.	Assessment evidence and judgement
PC 1.1	Types of hardware and fastenings are identified and described in terms of purpose and use.	<ul style="list-style-type: none"> Completed Knowledge Assessment sheet, supplemented by oral questions if need be.
PC 1.2	Job specifications are obtained, and verified with the supervisor, in accordance with workplace practice.	<ul style="list-style-type: none"> Assessor observation sheet.
PC 1.3	Hardware and fastenings are selected in accordance with job specifications.	<ul style="list-style-type: none"> Assessor observation sheet.
Outcome 2	Use hardware and fastenings for a BCATS project. Range: at least four of – nails, screws, bolts, common hinges, handles, locks, latches, timber connectors, adhesives, wheels, castors.	Assessment evidence and judgement
PC 2.1	The selected hardware and fastenings are used in accordance with job specifications, manufacturer's instructions, and workplace practice.	<ul style="list-style-type: none"> Assessor observation sheet. Verified photo of the project.
Outcome 3	Complete work operations	Assessment evidence and judgement
PC 3.1	All operations are safely completed in accordance with workplace practice.	<p>The learner:</p> <ul style="list-style-type: none"> correctly uses personal protective equipment as they work follows safe working practises and the job is safely completed.
PC 3.2	Workplace, tools, plant and equipment are cleaned, and tools, plant and equipment are stored in accordance with work place practice.	<p>The learner:</p> <ul style="list-style-type: none"> cleans the tools, plant, and equipment they used stores tools, plant and equipment in accordance with workplace practice maintains a clean work area.