

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

**Apply elementary workshop
procedures and processes for a
BCATS project**

Unit Standard – 24356

Level 1, Credit 8





Teaching and assessment tips

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

- establish job requirements for a specified project and prepare to apply processes;
- mark out materials for further processing;
- apply cutting and shaping processes;
- join materials and assemble product components;
- apply finishing processes; and
- complete work operations.

Unit standard interpretation

Evidence of 1 project is required.

In their projects, learners need to use:

- **timber** and **3** other materials (for example, manufactured board, metal, plastic, glass, concrete, mechanical fasteners, adhesives, finishing materials, upholstery fabric/leather).

“Finish”, in the context of this unit standard, refers to the surface and/or edge treatment detailed in the project plan; eg. planed or sanded, arris or bevelled edges, painted, stained etc and the completion of other detailing.

This unit (a full 8 credits) is essentially a reward for completing and documenting a BConstructive project. The successful completion of almost any BConstructive project should mean the learner can be assessed for this unit, so long as they document (and you verify) their work in respect of the workshop processes followed. It is suggested that you consider the requirements for this unit in terms of materials and processes when selecting projects for your programme so that students can achieve the maximum possible unit achievements for a single project.

An Assessment Record sheet is included in the resources as a model of how evidence for the unit standard can be collected. It is provided in Microsoft Word format so that you can adapt it to suit your programme and to give the students more room to write.

Assessment



Assessment of this unit standard consists of:

- An appropriate and completed project and
- Project documentation in the form of the Assessment Record sheet verified by you (as Assessor) that shows the learner’s application of the required workshop processes.

Examples of oral assessment questions

Workshop processes and procedures

1. Identify the materials that match the requirements of the job specifications

Materials are identified according to the requirements of the cutting list.

Marking out

2. Describe how you would square the end of a board.

Hold a try square firmly against the face edge.

Square the end off using a marking knife to scribe the line.

Transfer the line around the timber.

Cut end off to waste wood side of the line.

3. Describe how you would use a marking gauge to scribe a line parallel to an edge

*Set the gauge to the correct measurement and tighten thumb screw.
Place the stock firmly against the edge of your work.*

Slide the gauge along the edge with the spurs dragging on the surface to leave the required mark.

Cutting and shaping

4. What type of hand saw will you use to cut the following materials?

Steel bar *Hack saw*

Sheet of MDF *Panel saw*

Strip of 50 x 20mm timber in half *Tenon saw*

5. Describe the uses of a smoothing plane

A smoothing plane is intended mainly for smoothing and finishing work, but is also used for many other operations, such as cleaning up end grain, chamfers and rounding edges.

6. The blade needs to be maintained in a sharp condition. How can you protect the blade from damage when the plane is not in use?

Lay the plane on its side in the bench well or place away in its rack.

Jointing Methods

7. Identify the joints that you are going to use on your project and the method that you have chosen to join the materials together.

Identify the joint, the jointing method and the reasons for your decision

For example: two pieces of timber crossing over each other - cross halving joint. It is easy to construct, strong and provides a flush surface.

Or two pieces of metal to be joined - weld or braze.

Finishes

8. What type of finish are you going to use and how are you going to apply it to your project?

Identify the type of finish and the method of application that will be used eg: polyurethane which can be applied by brush, roller or spray.

Health and safety

9. Why is it necessary to get treatment for minor cuts and abrasions.

To prevent infections and complications that can result in absence from school or work.

10. Give two examples of a serious injury requiring immediate first aid treatment.

Severe bleeding.

Severe burns.

Electric shock.

Poisoning.

Assessment Schedule

US 24356 Apply elementary workshop procedures and processes for a BCATS project (Level 1, Credit 8)

Candidates are required to complete a specified project, and take photos of it as evidence for assessment against this unit standard. Examples of suitable projects include: tables, cabinets, seating, storage chests, complex shelving units, or projects of similar complexity.

Outcome 1	Establish job requirements for a specified BCATS project.	Assessment evidence and judgement
ER 1.1	Working drawings, job specifications and job processes are identified, and confirmed with the supervisor in accordance with workplace practice.	Evidence gathered from a BCATS project showing; <ul style="list-style-type: none"> • Instructions for a project are read and/or listened to
ER 1.2	Materials are identified and obtained in accordance with the working drawings and job specifications.	Evidence gathered from a BCATS project and assessment record sheet showing; <ul style="list-style-type: none"> • Correct amounts of appropriate materials for project are identified and obtained. • Four different materials are used, which include timber and three others, for example, manufactured board, metal, plastic, glass, concrete, mechanical fasteners, adhesives, finishing materials, upholstery fabric/leather
Outcome 2	Mark out materials for further processing	Assessment evidence and judgement
ER 2.1	Marking out processes are identified and tools are selected to meet the requirements of the task.	Evidence gathered from a BCATS project and assessment record sheet showing; <ul style="list-style-type: none"> • Marking out processes identified correctly and appropriate tools selected
ER 2.2	Marking out is in accordance with the working drawings and job specifications.	<ul style="list-style-type: none"> • Marking out is correct and accurate
ER 2.3	Marking out tools are used in accordance with the manufacturer's instructions and work place practice.	<ul style="list-style-type: none"> • Marking out tools used correctly
Outcome3	Apply cutting and shaping processes.	Assessment evidence and judgement
ER 3.1	Cutting and shaping processes are identified and tools are selected to meet the requirements of the task.	Evidence gathered from a BCATS project and assessment record sheet showing; <ul style="list-style-type: none"> • Cutting and shaping processes identified correctly and appropriate tools selected
ER 3.2	Cutting and shaping is in accordance with the working drawings and job specifications.	<ul style="list-style-type: none"> • Cutting and shaping is correct
ER 3.3	Cutting and shaping tools are used in accordance with the manufacturer's instructions and work place practice.	<ul style="list-style-type: none"> • Components for project are cut cleanly and accurately • Cutting and shaping tools used correctly
Outcome 4	Join materials and assemble components for a BCATS project.	Assessment evidence and judgement
ER 4.1	Jointing and assembly processes are identified and tools are selected to meet the requirements of the task.	Evidence gathered from a BCATS project and assessment record sheet showing; <ul style="list-style-type: none"> • Jointing and assembly processes identified correctly and appropriate tools selected
ER 4.2	Jointing and assembly are in accordance with the working drawings and job specifications.	<ul style="list-style-type: none"> • Jointing and assembly is correct
ER 4.3	Jointing and assembly tools are used in accordance with the manufacturer's instructions and work place practice.	<ul style="list-style-type: none"> • Project is sturdy and stable • Jointing and assembly tools used correctly
Outcome 5	Apply finishing processes.	Assessment evidence and judgement
ER 5.1	Finishing processes are identified and materials are selected to meet the requirements of the task.	Evidence gathered from a BCATS project and assessment record sheet showing; <ul style="list-style-type: none"> • Finishing processes are identified correctly and appropriate materials selected
ER 5.2	Finishing is in accordance with the working drawings and job specifications.	<ul style="list-style-type: none"> • Project is neatly sanded and stained, painted and/or polyurethaned
Outcome 6	Complete work operations.	Assessment evidence and judgement
ER 6.1	All operations are safely completed in accordance with work place practice.	Evidence gathered from a BCATS project or assessment record sheet showing; <ul style="list-style-type: none"> • Appropriate PPE selected and used • Tools used correctly and safely • Personal safety and safety of others observed
ER 6.2	Workplace, tools, plant and equipment are cleaned, and tools, plant and equipment stored in accordance with work place practice.	Evidence gathered from a BCATS project and assessment record sheet showing; <ul style="list-style-type: none"> • Work area cleaned and waste disposed of • Tools, plant and equipment cleaned and stored correctly