

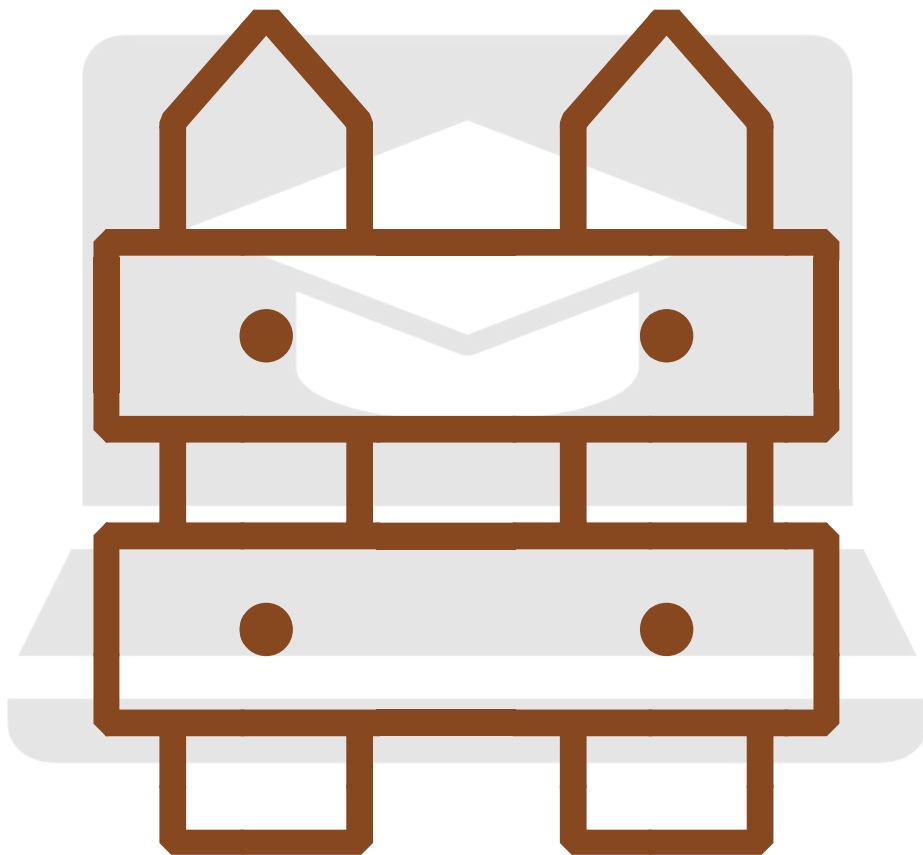


**BCATS**

BUILDING, CONSTRUCTION  
AND ALLIED TRADE SKILLS

# Timber fence

Teacher/Tutor resource



Unit Standard 31860 (v1), Level 2

Construct & maintain a basic residential timber fence as a BCATS project. 4 CREDITS

**BCITO**  
buildingpeople

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# Teaching and assessment tips

## Purpose

This unit standard credits a learner who is able to construct and maintain a basic residential timber fence to an acceptable standard off given plans and specifications. Evidence must be gathered for a basic timber fence no less than 4.8m long that incorporates at least 3 in-ground posts. It can be clad with timber palings or sheet metal.

The examples provided in the student resource are of various material and construction methods used to build residential timber fences. Providing the timber fence meets the unit standard's minimum criteria you may choose to use a different design and/or support your students to modify a different design. There are different processes, equipment, and tools that could achieve the same or similar outcome to the examples provided and they are to take your guidance on these.

Students need to:

- calculate the quantities of materials required and prepare an order for materials for a basic residential timber fence
- mark out, excavate, set the posts and fit the rails as per the plans and specifications
- fit the cladding and finish the fence as per the plans and specifications
- complete everything safely
- keep the site, tools, and equipment clean and tidy.

## Unit Interpretation

A basic residential timber fence of no less than 4.8m that incorporates at least 3 in-ground posts must be constructed according to the plans and specifications. Please see the assessment schedule on the last page of this resource for more-detailed requirements.

This unit standard also requires students to perform routine maintenance on a basic residential fence. The maintenance can be performed on a previously constructed fence.

A template for creating an order is available in the resource file for student use but you are welcome to use a different one that includes all the requirements as written in the student resource. The completed order, together with any of the learner's calculations, must be attached to the Assessor Observation Sheet.

Photographic or other evidence to show that the timber fence has 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:**

- calculate materials required and prepare an order and
- completion of a basic timber fence and
- routine maintenance on a basic residential timber fence and
- 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.

Constructing a basic residential timber fence can contribute to shared, complementary, or partial assessment of other standards, such as 24350, 24351, and 12927.

## Level 2

**24358:** *Plan and monitor the construction of a BCATS project and quality check the product*

To complete this project, students are required to work off a plan and specifications to calculate the materials required and prepare an order for materials. This is complementary to the requirements to plan and monitor the stages of construction and do the quality checks required for US 24358.

**24360:** *Demonstrate knowledge of timber and other construction materials used in BCATS projects*

Alongside the required theory component of US 24360, students constructing a timber fence will use a variety of construction materials suitable for in-ground and above ground use. The fence can therefore be one of the projects contributing to the achievement of US 24360.

**24354:** *Demonstrate knowledge of health and safety legislation and apply safe working practices in a BCATS environment*

All operations relating to the construction of a timber fence must be performed safely. The addition to your teaching programme of the required theory component of US 24354 could enable the achievement of this unit standard.

**24350:** *Identify, select, maintain and use portable power tools for BCATS projects*

**24351:** *Demonstrate knowledge of and use specified fixed machinery in the construction of BCATS projects*

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

The residential timber fence can be one of the minimum of two projects required for each of the unit standards noted above. While students may not necessarily complete all the theory aspects of the standards as part of constructing the fence, they should be encouraged to document evidence of the tools and machinery they selected and used.

# Examples of oral assessment questions

1. What treatment level should fencing timber have?

*Posts in contact with the ground should have a treatment level of H4.*

*Rails, palings and capping not in contact with the ground should have a treatment level of H3.1.*

2. Why is it important to never burn treated timber off-cuts in a domestic fire or barbecue? How should it instead be disposed of?

*Burning treated timber releases chemicals which can be harmful to people and the environment.*

*Off-cuts and other scrap treated timbers should instead be disposed of in an approved landfill facility.*

3. When should 100 x 100mm posts be used for a fence?

*For fence heights of 1.2 to 1.8m, and for end posts, corner posts and gate posts.*

4. How should timber be stored once it is delivered?

*Stack it flat and clear of the ground, and keep it covered or in the shade, to prevent it bowing or deteriorating.*



# Assessment Schedule

## US 31860 (v1) - Construct and perform maintenance on a basic residential timber fence as a BCATS project (Level 2, Credit 4)

Evidence for credit in this unit standard must be gathered for a fence with a minimum length of 4.8 metres (three posts).

Outcome 1	Calculate quantities and prepare an order for materials for the construction of a basic residential timber fence.	Assessment evidence and judgement
PC 1.1	Quantities of materials are calculated from working drawings and job specifications.	Evidence gathered from student's calculations and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Quantities of posts, rails, cladding, concrete and fixings are calculated correctly.</li> </ul>
PC 1.2	An order for materials is prepared in accordance with work place practice.	Evidence gathered using order list. <ul style="list-style-type: none"> <li>Order is legible and correct measurement units are used.</li> </ul>
Outcome 2	Construct a basic residential timber fence as a BCATS project.	Assessment evidence and judgement
PC 2.1	Post positions are set out, and post holes are excavated in accordance with working drawings and job specifications.	Evidence gathered from the project and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Post positions are set out and post holes are excavated correctly.</li> </ul>
PC 2.2	Posts and rails are set up and fixed in accordance with working drawings and job specifications.	Evidence gathered from the project and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Posts and rails are set up and fixed correctly.</li> </ul>
PC 2.3	Cladding is fixed and the fence is finished in accordance with working drawings and job specifications. Cladding must be timber palings or sheet metal.	Evidence gathered from the project and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Cladding is fixed and the fence is finished correctly.</li> </ul>
Outcome 3	Perform routine maintenance on a basic residential timber fence.	Assessment evidence and judgement
PC 3.1	A fence is checked for damage and wear.	Evidence gathered from the project and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Fence is thoroughly checked for damage and wear.</li> </ul>
PC 3.2	Damaged or worn components are replaced in accordance with workplace practice.	Evidence gathered from the project and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Any damaged or worn components are replaced correctly.</li> </ul>
Outcome 4	Complete work operations.	Assessment evidence and judgement
PC 4.1	All operations are safely completed in accordance with workplace practice.	Evidence gathered from the project and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Appropriate PPE selected and used</li> <li>Tools and materials used correctly and safely</li> <li>Personal safety and safety of others observed.</li> </ul>
PC 4.2	Workplace, tools, plant and equipment are cleaned, and tools, plant and equipment stored in accordance with workplace practice.	Evidence gathered from the project and the assessor observation sheet showing: <ul style="list-style-type: none"> <li>Work area cleaned and waste disposed of</li> <li>Tools, plant and equipment cleaned and stored correctly.</li> </ul>





