



**BCATS**

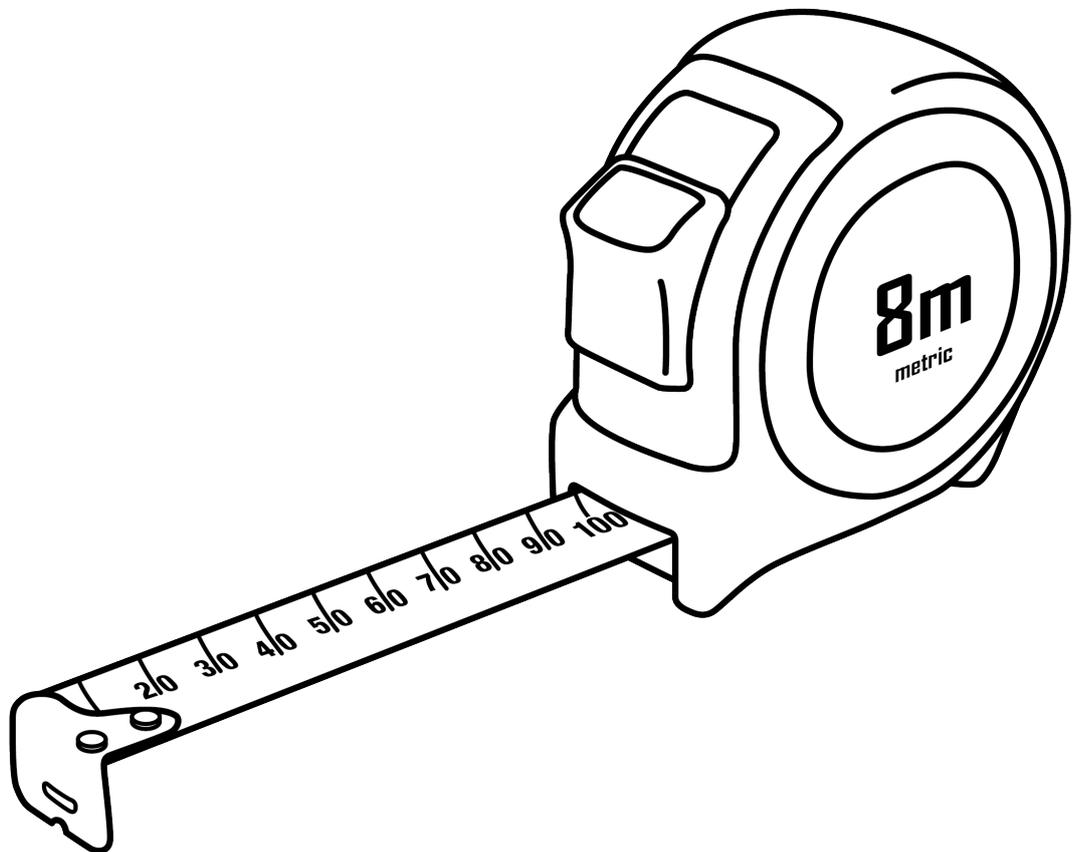
BUILDING, CONSTRUCTION  
AND ALLIED TRADES SKILLS

**Level**

**3**

# Mathematical processes

Assessment resource



**5 credits**

Skill Standard 40572 (v1)

**Apply mathematical processes to a BCATS project**

Learner name: \_\_\_\_\_

BCATS project: \_\_\_\_\_

**BCITO**  
He Hunga Hanga Mātou  
building people

## Assessment: Mathematical processes

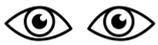
### Learner instructions

This assessment is about using mathematical processes for a BCATS project.

You need to show you can do these things without being prompted:

- Use your project brief to identify all measurements and calculations needed.
- Choose the best methods to carry out the measurements and calculations.  
**Note:** you need to show you can use a range of mathematical processes for your project, for example, measuring depth, length, width, converting cm to mm; calculating spacings, surface area, angles.
- Use accurate measurements and calculations to create a cutting list and materials list.
- Adjust your measurements and calculations as needed.
- Present your workings and findings clearly.

**Note:** you can use a calculator/apps/computer to help with your measurements and calculations.



Your teacher will observe you carrying out measurements and calculations for your project. They will provide comments in this assessment resource as evidence to support their observations.

You will need to provide the following evidence to support this. Submit it using myBCITO or the process at your school/organisation.



A completed *Project measurements and calculations* template, showing workings you carried out for the project and any adjustments you needed to make.

Completed *Cutting list* and *Materials list* templates.  
(in the Level 3: Project diary)



Any other notes or workings you made outside of the project diary (if needed) (e.g., spreadsheets, photographs, screenshots of phone apps you used).

Use the assessment checklist in this assessment resource to keep track of the evidence you have collected.

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The grade you are awarded will be based on your ability to use mathematical processes accurately and make adjustments as needed to get the best project outcome.

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## Assessment checklist: Mathematical processes

To be completed by the learner and the teacher.

Assessment activity	Evidence needed	Date all evidence collected (Learner to complete)	Teacher sign-off
Mathematical processes	A completed <i>Project measurements and calculations</i> template, including your workings and any adjustments you needed to make.		
	Completed <i>Cutting list</i> and <i>Materials list</i> templates.		
	Any other notes or workings made outside of the project diary.		

**Note:** A copy of the project brief must also be included in your overall portfolio of evidence.

## Teacher observation: Mathematical processes

Learner name: \_\_\_\_\_

Project: \_\_\_\_\_

### Teacher instructions

Below are criteria for the available grades.

Not Achieved	Achieved	Merit	Excellence
Mathematical processes are not applied appropriately to the project.	Apply mathematical processes to a BCATS project.	Apply mathematical processes efficiently to a BCATS project.	Apply mathematical processes skilfully to a BCATS project, optimising solutions.



**Provide comments on the learner's ability to meet the following assessment criteria, considering everything you observed throughout the project.**

Measurements and calculations required are identified from the project brief and appropriate mathematical methods are chosen.	
Mathematical methods are completed accurately, within allowable tolerances, including any adjustments as needed.	
All findings and workings are presented clearly.	

## Grade awarded: Mathematical processes

### Teacher instructions

After considering all the evidence collected, enter the grade you will award for Skill Standard 40572, with comments that explain your decision.

Final grade		Date	
<p style="text-align: center;"><b>Justification for final grade</b></p> <p style="text-align: center;">(Provide overall comments, considering all evidence collected)</p>			

### Teacher and learner sign-off

		Date
<p><b>Learner signature</b></p> <p>(Grade received and accepted)</p>		
<p><b>Teacher sign-off</b></p>	<p>Name: _____</p> <p>Signature: _____</p>	