Building and Construction Skills 2019 v1.0

Sample assessment instrument

July 2018

Project — Carpentry

Information for teachers

This sample has been compiled by the QCAA to help and support teachers in planning and developing assessment instruments for individual school settings.

Schools develop internal assessments for each Applied subject, based on the learning and assessment described in the approved study plan.

Purpose of the project

This technique assesses a response to a single task, situation and/or scenario in a module of work that provides students with authentic opportunities to demonstrate their learning in both 'Industry practices' and 'Construction processes'. The student response will consist of a collection of at least two assessable components, demonstrated in different circumstances, places and times, and may be presented to different audiences and through different modes.

Further information about the specifications for this assessment technique can be found in the Assessment techniques section of the Building and Construction Skills syllabus.

Assessment dimensions

This assessment instrument is used to determine student achievement in the following dimensions:

- Knowing and understanding
- Analysing and applying
- Producing and evaluating

In Building and Construction Skills, all objectives from each dimension must be assessed in each Project.

Subject	Building and Construction Skills
Technique	Project — Carpentry
Unit number and module number and name	**Unit:** 3 **Module:** 3. Residential homes — Tiling and carpentry

Conditions	**Units 3–4**
Multimodal component • non-presentation	8 A4 pages max (or equivalent)
Product component	Simulated residential room
Further information	
Duration (including class time)	11 weeks class time
Individual/group	Component 1: Product — completed in small groups with results awarded individually. Component 2: Multimodal — completed individually
Resources available	Access to construction space, tools and machines Detailed drawings and technical information

Context

As a class, you have been exploring the building and construction skills needed for residential homes, in particular concreting and carpentry.

Concreting refers to placing, spreading, compacting, finishing and curing concrete for buildings and other structures using hand tools and automated machinery. Carpentry refers to constructing, erecting, installing and repairing structures and fixtures made from wood and metal. It includes the finish and repair of wooden structures such as foundations, walls, roofs, windows and doors.

Task

Demonstrate and document industry practices and production processes when constructing parts of a simulated residential room to specifications. The simulated residential room is to include a concrete slab and a cladded stud wall.

The task includes two components.

- Component 1: Product

  In a small group, create a simulated residential room from the detailed drawings and technical information provided, to demonstrate the fundamental construction skills and procedures of concreting and carpentry. Your teacher will assign roles and responsibilities prior to commencing the task.
- Component 2: Multimodal

  Individually, maintain a photographic production journal with annotations to document and evaluate your product and use of industry practices and construction processes.

To complete this task, you must:

Component 1: Simulated residential room

Select, apply and demonstrate fundamental construction skills to complete the simulated residential room, ensuring you

- work cooperatively with others in the workplace
- use safe working practices and procedures
- interpret and analyse specifications in detailed drawings

- select and sequence construction procedures
- select and organise materials and tools
- plan the sequence of and access to equipment
- plan and calculate the cost of materials and consumables
- plan the construction processes, considering any adaptations needed
- demonstrate concreting skills to create a concrete slab to specifications
- demonstrate carpentry skills to create and clad a stud wall to specifications.

Component 2: Photographic production journal

Use photographs, annotations and other documentation to individually record and reflect on your work on the project, including

- detailed risk assessments (workplace health and safety)
- description of the expectations of work roles and the required teamwork
- description of the quality standards and selection of construction processes
- planning and calculations for tools and materials
- photographs with annotations of concreting and carpentry skills
- evaluation of industry practices and construction processes
- evaluation of the simulated residential room
- recommendations for improvement of construction processes and the simulated room.

Checkpoints

- ☐ Term [X] Week [X]/[Date]: Complete simulated concrete slab
- ☐ Term [X] Week [X]/[X]: Complete stud wall
- ☐ Term [X] Week [X]/[X]: Complete external cladding
- ☐ [Due date]: Complete simulated residential room and submit photographic production journal

Authentication strategies

Your teacher will use ways to check that the work you are assessed on is your own work.

- When working as part of a group, your individual response is assessed by your notes, teacher observation recording sheets and/or photographic evidence of the process.
- Discuss with your teacher or provide documentation of your progress at indicated checkpoints and in your photographic production journal.
- Your teacher will observe you completing work in class.
- Take part in interviews or consultations with your teacher as you develop your response.
- Submit the declaration of authenticity.
- Your teacher will compare the responses of students who have worked together in groups.
- Your results may be cross-marked by a teacher from another class.

Stimulus

Detailed drawings and technical information will be provided by the teacher, e.g.

- orthographic views of the concrete slab and simulated residential room
- isometric pictorials of the concrete slab and simulated residential room
- assembly drawings or exploded views of the simulated residential room
- technical information from industry-standard drawings and documents.

Instrument-specific standards matrix

	Standard A	Standard B	Standard C	Standard D	Standard E
Knowing and understanding	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:
	• comprehensive description of industry practices in construction tasks	• detailed description of industry practices in construction tasks	• description of industry practices in construction tasks	• statements about industry practices in construction tasks	• inconsistent statements about industry practices
	• consistent and proficient demonstration of fundamental construction skills	• effective demonstration of fundamental construction skills	• demonstration of fundamental construction skills	• partial demonstration of aspects of fundamental construction skills	• minimal demonstration of aspects of fundamental construction skills
	• informed and accurate interpretation of drawings and technical information.	• effective interpretation of drawings and technical information.	• interpretation of drawings and technical information.	• statements about drawings and technical information.	• inconsistent statements about drawings and technical information.
Analysing and applying	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:
	• thorough analysis of construction tasks to proficiently organise materials and resources	• effective analysis of construction tasks to organise materials and resources	• analysis of construction tasks to organise materials and resources	• partial analysis of construction tasks to organise some materials and resources	• minimal organisation of some materials or resources
	• discerning selection and proficient application of construction skills and procedures in construction tasks	• relevant selection and purposeful application of construction skills and procedures in construction tasks	• selection and application of construction skills and procedures in construction tasks	• partial application of aspects of construction skills and procedures in construction tasks	• minimal application of aspects of some construction skills and procedures in construction tasks
	• coherent and succinct use of visual representations, language conventions and features to communicate for particular purposes.	• effective use of visual representations, language conventions and features to communicate for particular purposes.	• use of visual representations, language conventions and features to communicate for particular purposes.	• vague use of visual representations, language conventions and features to somewhat communicate.	• unclear use of visual representations, language conventions and features that impedes communication.

	Standard A	Standard B	Standard C	Standard D	Standard E
Producing and evaluating	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:	The student work has the following characteristics:
	• thorough planning and discerning adaptation of construction processes	• effective planning and adaptation of construction processes	• planning and adaptation of construction processes	• partial planning of construction processes	• minimal planning of some construction processes
	• proficient creation of structures that meet specifications	• methodical creation of structures that meet specifications with minor variations	• creation of structures from specifications	• creation of incomplete structures with obvious variation from specifications	• creation of aspects of structures
	• discerning evaluation of practices, processes and structures, and valid recommendations made.	• effective evaluation of practices, processes and structures, and plausible recommendations made.	• evaluation of practices, processes and structures, and recommendations made.	• superficial evaluation of practices, processes and structures, and simple recommendations made.	• statements about practices, processes or structures.