

**Stage 2 Design and Technology – Material Products
Assessment Type 1: Skills and Applications Tasks
Skills Task 1**

Task - Use tools safely and complete processes correctly to produce the bedside table frame.

Skill	checked
Radial Arm Saw	
Safe use	✓
Dock to Length	✓
Cut a Tenon	✓
Thicknesser	
Safe use	✓
Plane to a thickness	✓
Plane a taper using a jig	✓
Mortise Machine	
Produce a mortise	✓
Dowelling machine	
Safe use	✓
Drill Press	
Safe use	✓
Fitting a frame	✓
Preparation for gluing	✓
Squaring a Frame	✓



Areas Assessed

Correct and safe use of workshop machines, accuracy of material preparation to specifications
Accuracy of jointing
Accuracy of assembly

Producing
Accomplished use of resources, equipment, and materials to create a product or system safely and accurately.



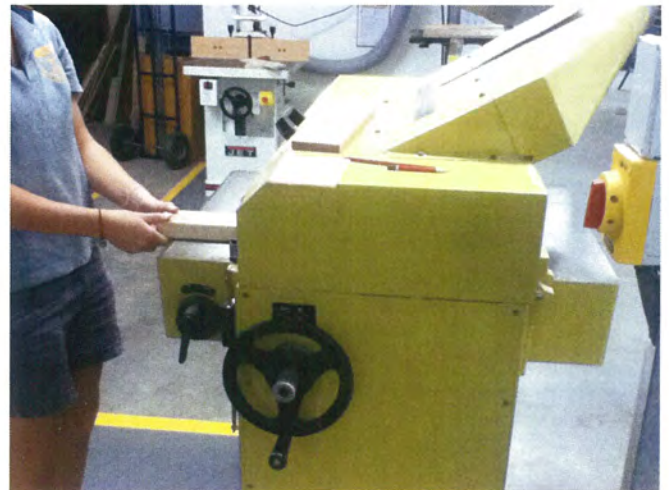
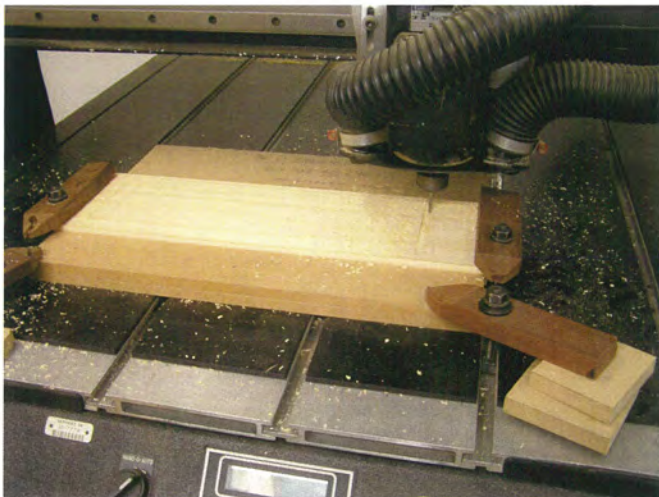
**Stage 2 Design and Technology – Material Products
Assessment Type 1: Skills and Applications Tasks
Skills Task 2**

Task – Construct a drawer and fit it into the bedside cabinet frame.
Apply a solid edge to a pine veneered particleboard top, connect to the frame.

CNC Router	
Draw drawer front and set machining paths	✓
Machine drawer front	✓
Drawer	
Prepare sides, back, base	✓
Construct drawer	✓
Fit drawer	✓
Cabinet top	
Mark, cut and glue mitres	✓
Prepare and fix back board	✓
Fix to cabinet frame	✓

Areas Assessed

Accuracy of drawer joints
Fit of drawer
Top joints and fit



Producing
Sophisticated application of appropriate skills, processes, procedures, and techniques to create a product or system to a precise or polished standard and specification.

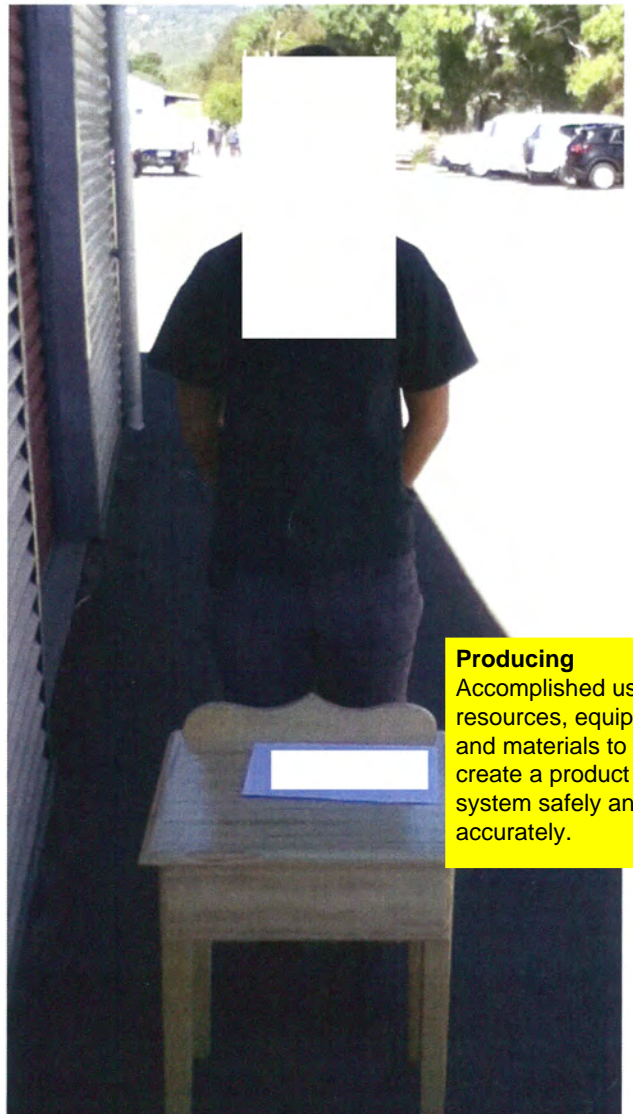
**Stage 2 Design and Technology – Material Products
Assessment Type 1: Skills and Applications Tasks
Skills Task 3**

Task – Use correct finishing techniques to complete the bedside cabinet.

Finishing	
Prepare for finishing	✓
Spray finish	✓

Areas Assessed

Quality of finish
Completed within deadlines



Producing
Accomplished use of resources, equipment, and materials to create a product or system safely and accurately.

Additional Comments

Clear and appropriate images are used to document the student's work. These images do not identify the student or the school. In each task, clear documentation is provided of the skills and focus areas assessed.

Performance Standards for Stage 2 Design and Technology

	Investigating	Planning	Producing	Evaluating
A	<p>Clear, comprehensive, and well-considered identification of a need, problem, or challenge.</p> <p>Thorough and insightful creation and validation of initial design brief based on needs analysis and task identification.</p> <p>Purposeful investigation and critical analysis of the characteristics of a broad variety of existing products, processes, systems, and/or production techniques.</p> <p>In-depth investigation into product material options and focused and thorough critical analysis for product use.</p> <p>Focused and perceptive investigation into the impact of products or systems on individuals, society, and/or the environment.</p>	<p>In-depth analysis of information to develop imaginative, innovative, and enterprising solutions to an identified design brief.</p> <p>Accomplished communication of a variety of refined product design ideas, consistently using relevant technical language.</p> <p>Purposeful testing and refined modification and validation of ideas or procedures.</p>	<p>Sophisticated application of appropriate skills, processes, procedures, and techniques to create a product or system to a precise or polished standard and specification.</p> <p>Accomplished use of resources, equipment, and materials to create a product or system safely and accurately.</p> <p>Accomplished and resourceful development of solutions to technical problems that may arise during product or system realisation.</p>	<p>Insightful and well-considered evaluation of product success against design brief requirements.</p> <p>Insightful and detailed evaluation of the effectiveness of the product or system realisation process.</p> <p>Refined and well-considered reflection on materials, ideas, and procedures, with sophisticated recommendations.</p> <p>Resourceful and well-informed analysis of the impact of the product or system on individuals, society, and/or the environment.</p>
B	<p>Well-considered identification of a need, problem, or challenge.</p> <p>Well-considered creation and validation of an initial design brief based on needs analysis and task identification.</p> <p>Thoughtful investigation and analysis of the characteristics of a variety of existing products, processes, systems, and/or production techniques.</p> <p>Detailed investigation into product material options and thorough analysis for product use.</p> <p>Some depth of investigation into the impact of products or systems on individuals, society, and/or the environment.</p>	<p>Thoughtful analysis of information to develop enterprising solutions to an identified design brief.</p> <p>Capable communication of different quality product design ideas, using relevant technical language.</p> <p>Thoughtful testing, modification, and validation of ideas or procedures.</p>	<p>Capable application of appropriate skills, processes, procedures, and techniques to create a product or system to a mostly precise or polished standard and specification.</p> <p>Capable use of resources, equipment, and materials to create a product or system safely and mostly accurately.</p> <p>Thoughtful development of solutions to technical problems that may arise during product or system realisation.</p>	<p>Well-considered evaluation of product success against design brief requirements.</p> <p>Well-considered and detailed evaluation of the effectiveness of the product or system realisation process.</p> <p>Well-considered reflection on materials, ideas, and procedures, with thoughtful recommendations.</p> <p>Well-informed analysis of the impact of the product or system on individuals, society, and/or the environment.</p>
C	<p>Considered identification of a need, problem, or challenge.</p> <p>Considered creation and validation of an initial design brief based on needs analysis and task identification.</p> <p>Competent investigation of the characteristics of some existing products, processes, systems, and/or production techniques.</p> <p>Competent investigation into product material options and analysis for product use.</p> <p>Generally thoughtful investigation into the impact of products or systems on individuals, society, and/or the environment.</p>	<p>Analysis of information to develop appropriate solutions to an identified design brief.</p> <p>Competent communication of product design ideas, using appropriate technical language.</p> <p>Competent testing, modification, and validation of ideas or procedures.</p>	<p>Competent application of skills, processes, procedures, and techniques to create a product or system to an appropriate standard and specification.</p> <p>Competent use of resources, equipment, and materials to create a product or system safely and generally accurately.</p> <p>Development of appropriate solutions to technical problems that may arise during product or system realisation.</p>	<p>Considered evaluation of product success against design brief requirements.</p> <p>Considered evaluation of the effectiveness of the product or system realisation process.</p> <p>Considered reflection on materials, ideas, and procedures, with appropriate recommendations.</p> <p>Informed analysis of the impact of the product or system on individuals, society, and/or the environment.</p>
D	<p>Identification of a basic need, problem, or challenge.</p> <p>Creation of a basic initial design brief with some consideration of a needs analysis.</p> <p>Identification of the characteristics of some existing products, processes, systems, or production techniques.</p> <p>Some basic description of material options.</p> <p>Some description of the impact of products or systems on individuals, society, or the environment.</p>	<p>Some identification of information to attempt basic solutions to an identified design brief.</p> <p>Basic communication of some product design ideas with some use of appropriate technical language.</p> <p>Partial testing and some modification of ideas or procedures.</p>	<p>Partial application of skills, processes, procedures, and techniques to make one or more articles to a limited standard and specification.</p> <p>Some use of basic resources, equipment, or materials to create a product or system, with some consideration of safety aspects.</p> <p>Partial development of some basic solutions to technical problems that may arise during product or system realisation.</p>	<p>Description of product progress, with elements of basic testing against design brief requirements.</p> <p>Some description of the effectiveness of the product or system realisation process.</p> <p>Superficial reflection on or description of materials, ideas, or procedures, with basic recommendations.</p> <p>Some consideration of the impact of the product on individuals, society, or the environment.</p>
E	<p>Limited identification of a need, problem, or challenge.</p> <p>Creation of a very basic initial design brief, with support.</p> <p>Statement of one or more characteristics of an existing product, process, system, or production technique.</p> <p>Limited description of one or more product material options.</p> <p>Identification of one impact of a product or system on individuals, society, or the environment.</p>	<p>Attempted identification of some information to develop limited solutions to an identified design brief.</p> <p>Limited communication of one or more product design ideas.</p> <p>Some attempt at testing and limited modification of an idea or procedure.</p>	<p>Attempted application of one or more skills, to follow an appropriate process, procedure, or technique.</p> <p>Attempted use of resources, equipment, or materials, with emerging awareness of safety issues.</p> <p>Some attempted description of problems that may arise during product or system realisation.</p>	<p>Identification of some product progress, with limited testing.</p> <p>Identification of some aspects of the effectiveness of the product or system realisation process.</p> <p>Identification rather than description of materials, ideas, or procedures, with one or more recommendations.</p> <p>Emerging recognition of one or more of the impacts of the product on individuals, society, or the environment.</p>