

Yr 10 Industrial Technology – Wood Lesson Plan

Topic/Main Concept/Theme: Cabinet Work – Side Panel Assembly

SYLLABUS CONTENT to be covered (Objectives)

- 1 knowledge of and competence in applying Occupational Health & Safety (OHS) risk management procedures and practices
- 2 knowledge, skills and an appreciation of quality in the design and production of practical projects
- 3 knowledge and understanding of the relationship between the properties of materials and their applications
- 4 skills in communicating ideas, processes and technical information with a range of audiences
- 5 an appreciation of the relationship between technology, leisure and lifestyle activities and further learning
- 6 the ability to critically evaluate manufactured products in order to become a discriminating consumer
- 7 knowledge and understanding of the role of traditional, current, new and emerging technologies in industry and their impact on society and the environment

SYLLABUS OUTCOMES to be covered

- 5.1.1 identifies, assesses and manages the risks and OHS issues associated with the use of a range of materials, hand tools, machine tools and processes
- 5.1.2 applies OHS practices to hand tools, machine tools, equipment and processes
- 5.2.1 applies design principles in the modification, development and production of projects
- 5.2.2 identifies, selects and competently uses a range of hand and machine tools, equipment and processes to produce quality practical projects
- 5.3.1 justifies the use of a range of relevant and associated materials
- 5.3.2 selects and uses appropriate materials for specific applications
- 5.4.1 selects, applies and interprets a range of suitable communication techniques in the development, planning, production and presentation of ideas and projects
- 5.4.2 works cooperatively with others in the achievement of common goals
- 5.5.1 applies and transfers acquired knowledge and skills to subsequent learning experiences in a variety of contexts and projects
- 5.6.1 evaluates products in terms of functional, economic, aesthetic and environmental qualities and quality of construction
- 5.7.1 describes, analyses and uses a range of current, new and emerging technologies and their various applications
- 5.7.2 describes, analyses and evaluates the impact of technology on society, the environment and cultural issues locally and globally

Students will learn about:

- the safe use and handling of hand, power and machine tools
- the use of personal protective equipment in the workshop
- the properties and working characteristics of solid timber including:

Students will learn to:

- safely use tools, materials and equipment
- use personal protective equipment when working with materials, tools and machines
- consider basic timber working characteristics and use solid timbers in the production of

<ul style="list-style-type: none"> - strength - grain direction - colour - defects <ul style="list-style-type: none"> • portable power tools and machines used for: <ul style="list-style-type: none"> - drilling - sanding - cutting 	<p>practical projects</p> <ul style="list-style-type: none"> • use machines and portable power tools in the production of practical projects 			
Cross Curriculum Content	ICT	Aboriginal and Indigenous	Work, Employment and Enterprise	Civics and Citizenship
	Difference and Diversity	Environment	Gender	
Key Competencies	Collecting Analysing and organising information	Communicating ideas and Information	Planning and organising activities	Working with others in teams
	Using mathematical ideas and techniques	Solving problems	Using Technology	
Literacy		Numeracy		
<ul style="list-style-type: none"> • Reading working drawings and cutting lists 		<ul style="list-style-type: none"> • Angles • Measurements 		

Considerations/Preparation		
Prior Knowledge/Experience <ul style="list-style-type: none"> • In the workshop • Biscuit joints 	Resources/Materials/Technology <ul style="list-style-type: none"> • Timber • Tri square • Pencil • Drop saw • Disc sander • Biscuit joiner • PPE 	Key Vocab <ul style="list-style-type: none"> • Biscuit Joints • Uprights • Side rails
Safety Risk Correct PPE Safety test done on power tools		Key Questions <ul style="list-style-type: none"> • Why do we use biscuit joints to join our frame?

Class/Stage: 5		Lesson/Period: 3		Lesson Length: 55 mins	
STAGE OF LESSON	TEACHER ACTIONS	STUDENT ACTIONS	QUESTIONING/ UNDERSTANDING?	TIME	RESOURCES
1. LINKING -what have they already learnt? -assumed knowledge? -link to last lesson?	-Shoe Check -Call Roll Starting prac today so have correct timber in workshop ready for students to start measuring and cutting	Change shoes if necessary	Does everyone have their cutting list with them ready to start prac?	5mins	Roll
3. INTRODUCTION ✓ Context of the lesson ✓ Expected outcomes/goals ✓ Key question/s	-Explain that we will cut timber for our side rails and uprights today For those who get that done, we can start joining our timber	Students to listen	All students should have the timber cut for their 2 side panel assemblies done by today.	5mins	
4. THE BODY ✓ Teacher directed learning? ✓ Independent student inquiry/learning?	Let students cut timber to length – refer to their cutting list.	Measure timber and mark. Cut on drop saw Sand if required	Visually see if anyone needs assistance	20mins	Timber Tri square Ruler Pencil Drop saw Disc sander

	<p>When first student finishes: Call all students to middle of room for demonstration on doing a biscuit joint.</p> <ul style="list-style-type: none"> - Show them how to mark their timber - Mark cross rail then transfer line across - Secure timber to jig - Use biscuit joiner 	Watch	<p>Dimensions on board to show how to mark out.</p> <p>Is anyone not sure how to use this?</p>	10mins	<p>Bench hook – biscuit jig</p> <p>Timber</p> <p>Clamp</p> <p>Biscuit joiner</p> <p>Safety glasses</p>
	Teacher to supervise students marking and cutting their joints	<p>Students to continue on with side assy.</p> <p>Mark timber for biscuit joint</p> <p>Cut biscuit joints</p>	Watch that students are marking out correctly and are adhering to their PPE	10mins	
<p>5. CONCLUSION</p> <ul style="list-style-type: none"> ✓ Pack up and organise ✓ Summary of lesson ✓ Future directions/ linking to next lesson 	<p>Teacher to call pack up time</p> <p>Start delegating jobs such as sweeping</p> <p>Remind students to put their name on their timber</p>	<p>Students to put timber away</p> <p>Clean up room</p> <p>sweep</p>		5mins	Broom
<p>6. EVALUATION REFLECTION</p>	<ul style="list-style-type: none"> • Were the students showing a good understanding of how to use the tools? • Was the time management of the lesson OK? Did it run over or was it too short? • Did anyone look totally lost? 				