**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:** | **Students will learn to:** |
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| • the safe use and handling of hand, power and machine tools<br>• the use of personal protective equipment in the workshop<br>• the properties and working characteristics of solid timber including: | • safely use tools, materials and equipment<br>• use personal protective equipment when working with materials, tools and machines<br>• consider basic timber working characteristics and use solid timbers in the production of |

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| - strength<br>- grain direction<br>- colour<br>- defects<br><br>• portable power tools and machines used for:<br>- drilling<br>- sanding<br>- cutting | practical projects<br><br>• use machines and portable power tools in the production of practical projects |

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| **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** |
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| • Reading working drawings and cutting lists | • Angles<br>• Measurements |

| **Considerations/Preparation** | | |
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| **Prior Knowledge/Experience**<br><br>• In the workshop<br>• Gluing and clamping<br>• Router<br>• Infill panels | **Resources/Materials/Technology**<br><br>• PPE<br>• Glue<br>• Sash Cramps<br>• Router<br>• Jig<br>• Chisels<br>• Mallet<br>• Infill panels | **Key Vocab**<br><br>• Router<br>• Jig<br>• Infill panels |
| **Safety Risk**<br><br>Correct PPE<br>Safety test done on power tools | | **Key Questions**<br><br>• What timber do you want to use for your infill panel |

| **Class/Stage:** 5 | **Lesson/Period:** 3+4 | **Lesson Length:** 55 mins x 2 | | | |
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| **STAGE OF LESSON** | **TEACHER ACTIONS** | **STUDENT ACTIONS** | **QUESTIONING/ UNDERSTANDING?** | **TIME** | **RESOURCES** |
| 1. LINKING<br>-what have they already learnt?<br>-assumed knowledge?<br>-link to last lesson? | -Shoe Check<br>-Call Roll<br>Make sure that plunge router is available as well as examples of inlay panels<br>Timber for inlay panels must be ready to cut | Change shoes if necessary | Has everyone decided what infill timber they want to use? | 5mins | Roll |
| 3.INTRODUCTION<br>✓Context of the lesson<br>✓Expected outcomes/goals<br>✓Key question/s | -Most people will be up to<br>Plane and sand timber and Routing<br>If you have already done this, you are to cut your infill boards. I will discuss how this is to be done. | Students to listen | Is anyone stuck and need assistance? | 5mins | |
| 4. THE BODY<br>✓ Teacher directed learning?<br>✓ Independent student inquiry/ learning? | Call everyone's attention and discuss how they will cut their infill panels:<br>If you chose:<br>**Lining Boards:**<br>- Measure length of routed hole<br>- Mark and cut lining boards x 2 to length | Listen | Any questions? | 10mins | Drop saw<br>Band saw<br>Ruler<br>Tri square<br>Pencil<br>Timber<br>Glue<br>Panel pins |

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| | - Glue and gently clamp together<br>- Once dry, measure the width of your routed hole and plane glued lining boards down to size<br>**Pine Ply:**<br>- Measure length of routed hole<br>- Mark and cut ply on the bandsaw<br>- Plane down if required<br>**Luan:**<br>- Measure length of routed hole<br>- Mark and cut luan on the bandsaw<br>- Plane down if required<br>All to be fixed to inside of panel with glue and panel pins (on angle) | | | | Clamps |
| | Teacher to supervise students routing their panels and Cutting infill panels to size | Students to continue on with side assy, wherever they're up to. | Watch that students are using correct PPE | 85mins | |

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| 5. CONCLUSION<br>✓ Pack up and organise<br>✓ Summary of lesson<br>✓ Future directions/ linking to next lesson | Teacher to call pack up time<br>Start delegating jobs such as sweeping | Students to put timber away<br>Clean up room<br>sweep | | 5mins | Broom |
| 6. EVALUATION<br>REFLECTION | • Were the students showing a good understanding of how to cut their infill panels to size?<br>• Was the time management of the lesson OK? Did it run over or was it too short?<br>• Is anyone lagging behind? | | | | |