

Term 2 & 4 Metals

Week	Unit	Learning Focus	Victorian Curriculum Substands
1	Storage Container	<ul style="list-style-type: none"> <li>Demonstration on how to measure and mark out sheet for body.</li> <li>Demonstration on using tin snips.</li> <li>Remove waste from notching.</li> <li>Introduce students to the workshop and discuss the need for safety guidelines.</li> <li>Handout assessment activity sheet, workshop drawing and set up project report requirements.</li> </ul>	STRAND Technologies and Society Examine and prioritise competing factors including social, ethical economic and sustainability considerations in the development of technologies and designed solutions to meet community needs for preferred futures.
2		<ul style="list-style-type: none"> <li>Demonstrate the use of “MagnaBend” and tinman’s mallet to produce folded edges and seams. Discuss how this process would be undertaken in industry.</li> <li>Students to complete task on project.</li> <li>Discuss the need for folded edges and seams in sheet metal work.</li> <li>Introduce and use Safe Operating Procedure (SOP) for “MagnaBend”</li> <li>Brainstorm hazards in the workshop and identify PPE available.</li> <li>Create freehand sketches of completed project.</li> </ul>	STRAND Technologies and Society Investigate the ways in which designed solutions evolve locally, nationally, regionally and globally through the creativity, innovation and enterprise of individuals and groups.
3		<ul style="list-style-type: none"> <li>Demonstrate and instruct students how to fold remainder of body.</li> <li>Demonstrate the method used to construct ends.</li> <li>First aid guest speaker to discuss basic first aid and accident reporting.</li> <li>Develop cutting list using spreadsheet program.</li> </ul>	STRAND Creating Designed Solutions Generating Generate, develop and test design ideas, plans and processes using appropriate technical terms and technologies
		<ul style="list-style-type: none"> <li>Construct ends.</li> <li>Introduce students to work method statements and highlight key elements.</li> <li>Produce basic work method statement for project.</li> </ul>	STRAND Technologies Contexts Materials and technologies specialisations Analyse ways to create designed solutions through selecting and combining characteristics and properties of materials, systems, components, tools and equipment

4-7		<ul style="list-style-type: none"> <li>• Continue ends.</li> <li>• Demonstrate riveting and soft soldering methods to join ends to body.</li> <li>• Theory resource. Metalwork for Schools pgs 79-90 "Joining sheet metals".</li> <li>• Students to begin compilation of glossary of terms for metal industry.</li> </ul>	<p>STRAND Creating Designed Solutions Producing</p> <p>Effectively and safely use a broad range of materials, components, tools, equipment and techniques to produce designed solutions</p>
		<ul style="list-style-type: none"> <li>• Students join ends to body.</li> <li>• Discuss common workplace signage.</li> <li>• In teams of four students develop a safety poster to be displayed in the workshop.</li> </ul>	<p>STRAND Creating Designed Solutions Producing</p> <p>Effectively and safely use a broad range of materials, components, tools, equipment and techniques to produce designed solutions</p>
		<ul style="list-style-type: none"> <li>• Demonstrate and instruct students on the construction of the handle.</li> <li>• Westover, K. Metalwork for High Schools 2. 1982. Pitman pg.96-98. Review table "metals in common use" and compile list in project report.</li> <li>• Discuss a range of materials that will be used over the duration of the course. e.g. Flat, round, RHS, angle, sheet, plate, and coatings applied.</li> </ul>	<p>STRAND Creating Designed Solutions Producing</p> <p>Effectively and safely use a broad range of materials, components, tools, equipment and techniques to produce designed solutions</p>
8		<ul style="list-style-type: none"> <li>• Construct and fit handle.</li> <li>• Use the different uses strategy to highlight the need to recycle or re-use. e.g. List ten creative/different uses for sheet-metal off-cuts.</li> </ul>	<p>STRAND Creating Designed Solutions Producing</p> <p>Effectively and safely use a broad range of materials, components, tools, equipment and techniques to produce designed solutions</p>

9 & 10		<ul style="list-style-type: none"> <li>• Design and add dividers if time permits</li> <li>• Use form and function sheet to revise functional and aesthetic aspects.</li> </ul>	<p>STRAND Creating Designed Solutions Producing</p> <p>Effectively and safely use a broad range of materials, components, tools, equipment and techniques to produce designed solutions</p>
		<ul style="list-style-type: none"> <li>• Complete project and accompanying project report.</li> <li>• If time permits conduct excursion to local engineering workshop.</li> <li>• Complete project report and present.</li> <li>• Use student self evaluation assessment sheet to evaluate progress.</li> </ul>	<p>STRAND Creating Designed Solutions Producing</p> <p>Effectively and safely use a broad range of materials, components, tools, equipment and techniques to produce designed solutions</p>