

<b>Lesson Focus</b>	Introduction to MIG (Metal Inert Gas) Welding		<b>Learning Area (Curriculum)</b>	Industrial Design and Technology	
<b>Year Level</b>	10	<b>Implementation Date</b>	23/10/24	<b>Lesson duration</b>	70 mins
<b>Prior knowledge of learners</b> (What do they already know about this concept/topic/skill?) Students might have a basic awareness of metalworking but that's the extent of it.					
<b>Links to Curriculum</b> (identify relevant Strands and Content Descriptors) <i>Select and justify choices of materials, components, tools, equipment, and techniques to effectively and safely make designed solutions (ACTDEK043)</i> <i>Investigate and make judgments on the ethical and sustainable production and marketing of designed solutions (ACTDEK041)</i> <i>Work flexibly to effectively and safely test, select, justify, and use appropriate technologies and processes to make designed solutions (ACTDEP050)</i>					
<b>Learning objectives (Declarative - knowledge)</b> 1. Understand why MIG welding is important for society and its applications. 2. Identify and explain the safety protocols for MIG welding. 3. Recognize and describe the components of a MIG welder.					
<b>Learning objectives (Procedural – skills)</b> 1. Demonstrate the setup of a MIG welding station. 2. Apply correct techniques for welding metal pieces together. 3. Perform safety checks before starting the welding process.					
<b>Key Resources</b> <ul style="list-style-type: none"> <li>Writing implements (Theory class)</li> </ul>					
<b>1. Lesson Introduction</b> (introduce the topic and engage the learners)					
<b>Timing</b>	<b>What you will do (your teaching steps)</b>				
10 min	1. Show a short video clip of MIG welding to engage students - <a href="https://www.youtube.com/watch?v=twUAa5LWUvk">https://www.youtube.com/watch?v=twUAa5LWUvk</a> 2. “What do you already know about welding?” 3. Introduce the lesson's objectives: understanding MIG welding basics and safety requirements. Engage students with the following questions: 4. “Why do you think welding is a critical industry skill today?”				<ul style="list-style-type: none"> <li>What are your expectations for the lesson?</li> <li>What is your hook to engage the learners?</li> <li>What are your key prompts?</li> <li>What questions will you ask?</li> <li>How will you check for understanding/learning?</li> </ul>

<b>2. Lesson Body</b> <i>(Teaching the content through specific strategies)</i>		
<b>Timing</b>	<b>What you will do (your teaching steps)</b>	
50 min	<p>Set-up</p> <p><b>10-15 minutes:</b> Why MIG welding is an important skill</p> <p><b>10- 15 minutes:</b> Explain the components of a MIG welder (torch, wire feed, gas cylinder). Demonstrate the setup of a welding station, including safety checks.</p> <p><b>10 minutes:</b> Safety overview</p> <p><b>Strategies:</b></p> <ul style="list-style-type: none"> <li>• Visual aids / revision sheet answered = exit ticket</li> <li>• Revision score will determine order of who welds first next lesson</li> </ul> <p><b>Check for Understanding</b></p> <ul style="list-style-type: none"> <li>• Observe student participation in the revision sheet and class discussions</li> </ul>	<ul style="list-style-type: none"> <li>• What strategies are you using to teach the content?</li> <li>• What are your key prompts?</li> <li>• What questions will you ask?</li> <li>• How will you check for understanding/learning?</li> </ul>
<b>3. Lesson Conclusion</b> <i>(concluding activities, review, check for learning)</i>		
<b>Timing</b>	<b>What you will do (your teaching steps)</b>	
10 min	<p><b>Check for Understanding:</b></p> <ul style="list-style-type: none"> <li>• Summarize the key points covered: What is MIG? Components of a MIG welder, Safety</li> <li>• Address any questions and review the quiz results with the class to reinforce learning.</li> </ul> <p><b>Wrap-Up:</b></p> <ul style="list-style-type: none"> <li>• End with a couple of reflection questions</li> </ul>	<ul style="list-style-type: none"> <li>• How will you summarise the key learnings?</li> <li>• How do you wrap up the lesson?</li> <li>• How will you check for understanding/learning?</li> </ul>

**Lesson Reflection**

What worked well or was successful? (*The What*)

What did not work well or could be improved? (*The What*)

Why do I think this occurred? (*The So What*)

What does this mean for your teaching practice and decision-making next time? (*The What Next*)