

Lesson Focus	Introduction to MIG (Metal Inert Gas) Welding		Learning Area (Curriculum)	Industrial Design and Technology	
Year Level	10	Implementation Date	25/10/24	Lesson duration	70 mins
Prior knowledge of learners (What do they already know about this concept/topic/skill?) Students will have completed the prior lesson that set the basic MIG foundation required to progress to the metal shop and start MIG welding.					
Links to Curriculum (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>					
Learning objectives (Declarative - knowledge) 1. Understand the fundamental principles of MIG welding. 2. The components of a MIG welder and their functions. 3. Recognize safety protocols specific to MIG welding.					
Learning objectives (Procedural – skills) 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. 4. Start welding					
Key Resources <ul style="list-style-type: none"> MIG welder Personal protective equipment (PPE) like helmets, gloves, and welding jackets 					
1. Lesson Introduction (introduce the topic and engage the learners)					
Timing	What you will do (your teaching steps)				
10 min	Acknowledge and praise the students for their engagement and performance in the theory session. Conduct a quick theory revision to ensure their understanding matches the practical application they will soon undertake. Confirm that the students recall the necessary information accurately.			<ul style="list-style-type: none"> What are your expectations for the lesson? What is your hook to engage the learners? What are your key prompts? What questions will you ask? How will you check for understanding/learning? 	

2. Lesson Body <i>(Teaching the content through specific strategies)</i>		
Timing	What you will do (your teaching steps)	
50 min	<p>After the first group completes their session, instruct them to close down and reset their stations, swapping gear with the next group. Facilitate peer advice by asking the first group to offer tips to the second group.</p> <p>Supervise the second group as they replicate the process, guiding as needed. Conclude the lesson by having the second group reset their bays and return their gear.</p>	<ul style="list-style-type: none"> • What strategies are you using to teach the content? • What are your key prompts? • What questions will you ask? • How will you check for understanding/learning?
3. Lesson Conclusion <i>(concluding activities, review, check for learning)</i>		
Timing	What you will do (your teaching steps)	
10 min	<p>Reflect on the lesson's flow, noting its success in aligning with the intended plan and setting a solid foundation for further development. Await feedback from the supervisor to build upon these practices.</p> <p>Wrap-Up:</p> <ul style="list-style-type: none"> • End with a reflection question: "What do you think is the most important safety rule when welding, and why?" • Did you enjoy completing your first welds? • How do you feel now? • 	<ul style="list-style-type: none"> • How will you summarise the key learnings? • How do you wrap up the lesson? • How will you check for understanding/learning?
<p>Lesson Reflection</p> <p>What worked well or was successful? <i>(The What)</i></p> <p><i>The continuation of treating them like young tradesmen being inducted onto a job site and then having played the role of having passed induction and transition onto 'site' aka welding bays.</i></p> <p>What did not work well or could be improved? <i>(The What)</i></p> <p><i>I wouldn't say it didn't work well, but there is most certainly an art to controlling a class within a workshop environment with tools and machines. I know this needs to be a well-honed skill set I have not achieved in a 2-week placement. I am, however, confident that I will address this adequately quickly.</i></p> <p>Why do I think this occurred? <i>(The So What)</i></p> <p><i>Lack of experience</i></p> <p>What does this mean for your teaching practice and decision-making next time? <i>(The What Next)</i></p> <p><i>This fits into the skill set of adapting to a new physical working environment similar to the real world when commencing a new project and working with many new contractors. The distinction, of course, is that these are students with zero knowledge of what they are walking into. That needs to be front of mind for every lesson and treated accordingly.</i></p>		