

HAZLETON AREA SCHOOL DISTRICT



DISTRICT UNIT/LESSON PLAN

Unit Plan

Unit Title: GMAW Gas Metal Arc Welding

Essential Questions: What are the advantages and disadvantages of GMAW welding?

In GMAW, which type of welding machine is used and why does it require a shielding gas?

What type of current is commonly used to weld ferrous metals?

In GMAW, what result can be expected with respect to heat distribution between the base metal and the electrode with DCEN as compared to DCEP?

Standards: Standard CC.3.5.9-10B Determine the central ideas or conclusions of a text; etc....

Standard CC.3.6.9-10.B Write informative or explanatory texts, including the narration of technical processes, etc.

Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities

Summative Unit Assessment: P.O.S. 604a: The student will perform fillet welds in the 1F position.

604b: The student will perform fillet welds in the 2F position.

604c: The student will perform fillet welds in the 3F position.

Summative Assessment Objective	Assessment Method (check one)
Students will-Perform safety inspections of GMAW equipment. Make minor external repairs to GMAW equipment. Set up and operate GTAW equipment. Make fillet welds in all positions.	<input checked="" type="checkbox"/> Rubric <input checked="" type="checkbox"/> Checklist <input type="checkbox"/> Unit Test <input type="checkbox"/> Group <input checked="" type="checkbox"/> Student Self-Assessment <input type="checkbox"/> Other (explain)

DAILY PLAN

Day	Objective (s)	DOK LEVEL	Activities / Teaching Strategies	Grouping	Materials / Resources	Assessment of Objective (s)
1	The student will set up and operate GMAW welding equipment.	3	Read chapter 19 in the Welding Skills Text beginning on page 213 Teacher provided learning guide on GMAW Identify proper PPE to be utilized while operating GMAW equipment. Identify the different parts of the GMAW welding machine and their functions.	S	Welding Skills Text Book Teacher provided learning guide on GMAW Various Personal Protective Equipment GMAW welding Machine	Formative -Upon completion of the GMAW unit the students will pass a written exam. Summative - The student will pass a performance test on ferrous metals. Student Self - Assessment -The students will analyze their welds for visual defects.
2	The student will set up and operate GMAW welding equipment.	3	Read chapter 19 in the Welding Skills Text beginning on page 213 Teacher provided learning guide on GMAW Identify proper PPE to be utilized while operating GMAW equipment. Identify the different parts of the GMAW welding machine and their functions.	S	Welding Skills Text Book Teacher provided learning guide on GMAW Various Personal Protective Equipment GMAW welding Machine	Formative -Upon completion of the GMAW unit the students will pass a written exam. Summative - The student will pass a performance test on ferrous metals. Student Self - Assessment -The students will analyze their welds for visual defects.
3	The student will set up and operate GMAW welding equipment..	3	Read chapter 19 in the Welding Skills Text beginning on page 213 Teacher provided learning guide on GMAW Identify proper PPE to be utilized while operating GMAW equipment. Identify the different parts of the GMAW welding machine and their functions.	S	Welding Skills Text Book Teacher provided learning guide on GMAW Various Personal Protective Equipment GMAW welding Machine	Formative -Upon completion of the GMAW unit the students will pass a written exam. Summative - The student will pass a performance test on ferrous metals. Student Self - Assessment -The students will analyze their welds for visual defects.
4	The student will set up and operate GMAW welding equipment..	3	Read chapter 19 in the Welding Skills Text beginning on page 213 Teacher provided learning guide on GMAW Identify proper PPE to be utilized while operating GMAW equipment. Identify the different parts of the GMAW welding machine and their functions.	S	Welding Skills Text Book Teacher provided learning guide on GMAW Various Personal Protective Equipment GMAW welding Machine	Formative -Upon completion of the GMAW unit the students will pass a written exam. Summative - The student will pass a performance test on ferrous metals. Student Self - Assessment -The students will analyze their welds for visual defects.
5	The student will set up and operate GMAW welding equipment.	3	Read chapter 19 in the Welding Skills Text beginning on page 213 Teacher provided learning guide on GMAW Identify proper PPE to be utilized while operating GMAW equipment. Identify the different parts of the GMAW welding machine and their functions.	S	Welding Skills Text Book Teacher provided learning guide on GMAW Various Personal Protective Equipment GMAW welding Machine	Formative -Upon completion of the GMAW unit the students will pass a written exam. Summative - The student will pass a performance test on ferrous metals. Student Self - Assessment -The students will analyze their welds for visual defects.