

HAZLETON AREA SCHOOL DISTRICT



DISTRICT UNIT/LESSON PLAN

Teacher Name : Richard Tihansky

Subject : Welding Technology

Start Date(s): Q4 Week 7

Grade Level (s): 10-12

Building : HACC

Unit Plan

Unit Title: GTAW Gas Tungsten Arc Welding

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

In GTAW, which type of welding machine is used and why it is water cooled?

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

In GTAW, 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. 804: The student will perform GTAW welds in the 1F position on ferrous materials.

Summative Assessment Objective	Assessment Method (check one)
Students will-Perform safety inspections of GTAW equipment. Make minor external repairs to GTAW 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)
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1	Students will- safety perform GTAW welds in the 1F position on ferrous materials	3	Read chapter 17 in the Welding Skills Text beginning on page 187 Identify proper PPE to be utilized while operating GTAW equipment. Identify the different parts of the GTAW welding machine and their functions.	S	Welding Skills Text Book Various Personal Protective Equipment GTAW welding Machine	Formative -Upon completion of the GTAW 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	Students will- safety perform GTAW welds in the 1F position on ferrous materials	3	Read chapter 17 in the Welding Skills Text beginning on page 187 Identify proper PPE to be utilized while operating GTAW equipment. Identify the different parts of the GTAW welding machine and their functions.	S	Welding Skills Text Book Various Personal Protective Equipment GTAW welding Machine	Formative -Upon completion of the GTAW 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.
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5	Students will- safety perform GTAW welds in the 1F position on ferrous materials	3	Read chapter 17 in the Welding Skills Text beginning on page 187 Identify proper PPE to be utilized while operating GTAW equipment. Identify the different parts of the GTAW welding machine and their functions.	S	Welding Skills Text Book Various Personal Protective Equipment GTAW welding Machine	Formative -Upon completion of the GTAW 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. -