

**The Pennsylvania State University  
Workforce Education and Development**

**Lesson Plan Template**

Name of Instructor: Larry Brown
Program Title: Welding Technology / Welder
Course Title: Welding
Unit Title: Welding Assignment #4
Lesson Title: Gas Tungsten Arc Welding Procedures
Lesson Performance Objective: Given the information students will be able to answer the following questions about Gas Tungsten Arc Welding
Time (length of lesson): 20-30 mins.
Equipment and Materials needed: Computer and or textbook for information.
Technical Standard(s): CIP 801, 802, 803.
Academic Standard(s):
Introduction By now students have experienced basic Gas Tungsten Arc Welding procedures. They will be able to research and answer questions on the worksheet.

Body: Students will gain information in this worksheet to assist them with step by step procedures using the Gas Tungsten Arc Welding process.

Summary: Given the information each student will gain from completing the worksheet students will be able to return to the shop and perform welding tasks at a higher proficiency level.

Student Assessment:

Formative Assessment(s)

Summative Assessment:

Universal Design for Learning (UDL)

Multiple Means of Engagement:

Multiple Means of Representation:

Multiple Means of Expression:

## Welding Assignment #4

### Gas Tungsten Arc Welding

1. When welding DCEN or straight polarity the weld that is made will have a deep penetration. True or False.
2. Name three types of metal that can be welded with DCEN or straight polarity. 1. \_\_\_\_\_, 2. \_\_\_\_\_, 3. \_\_\_\_\_.
3. What type of shielding gas is used for welding Stainless steel \_\_\_\_\_.
4. When welding DCEN on carbon steel, what percentage is the current flow going through the work clamp 50% 65% 45% or 70%.
5. Tungsten melts at what temperature \_\_\_\_\_.
6. When welding 1/8 metal what size tungsten should be used to make the weld 3/32, 1/8, 1/16 or .040
7. What current is used to weld aluminum \_\_\_\_\_.
8. Name two common types of metal welded with ACHF \_\_\_\_\_  
\_\_\_\_\_.
9. Explain in detail the advantage or disadvantage of using a gas lens when using the GTAW process \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.
10. What should the regulator pressure be set at for most gas tungsten arc welding procedures \_\_\_\_\_.



Name \_\_\_\_\_

Date \_\_\_\_\_

### Fraction Review

+/- fractions and whole #'s

$$\begin{array}{r} \textcircled{1} \quad 8 \frac{3}{4} \\ - 6 \frac{7}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad 15 \frac{15}{16} \\ + 8 \frac{3}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad 15 \\ - 11 \frac{7}{16} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad 9/16 \\ \quad 1/8 \\ + 3/4 \\ \hline \end{array}$$

Show work!

$$\begin{array}{r} \textcircled{5} \quad 1,234 \\ - 987 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad 811.039 \\ + 9.898 \\ \hline \end{array}$$

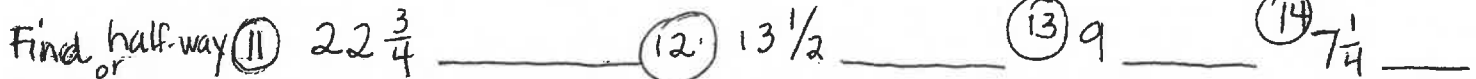
$$\begin{array}{r} \textcircled{7} \quad 78,175 \\ - 63,986 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{8} \quad 19,489 \\ + 6,841 \\ \hline \end{array}$$

Use Scale Rule



Find <sup>or</sup> half-way Center point



Equivalent Fraction/Decimal

$\textcircled{15}$   $7/8$ " = \_\_\_\_\_  $\textcircled{16}$   $.375$  = \_\_\_\_\_  $\textcircled{17}$   $.125$  = \_\_\_\_\_  $\textcircled{18}$   $5/8$ " = \_\_\_\_\_

Show work!

$$\begin{array}{r} \textcircled{19} \quad 2 \frac{13}{16} \\ - 1 \frac{15}{16} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{20} \quad 2 \frac{3}{16} \\ + 7 \frac{7}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{21} \quad 5 \frac{1}{4} \\ - 3 \frac{1}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{22} \quad 1 \frac{15}{16} \\ \quad 5/8 \\ + 11 \frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{23} \quad 12 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{24} \quad 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{25} \quad 8 \\ \times 4 \\ \hline \end{array}$$

