

# Dog Tag

<p><b>Solder:</b> a low-melting alloy, especially one based on lead and tin or (for higher temperatures) on brass or silver, used for joining less fusible metals.</p>	<p><b>Flux:</b> the primary purpose of flux is to prevent oxidation of the base and filler materials. Tin-lead solder (e.g.) attaches very well to copper, but poorly to the various oxides of copper, which form quickly at soldering temperatures.</p>
<p><b>Pickling:</b> a metal surface treatment used to remove impurities, such as stains, inorganic contaminants, rust or scale from ferrous metals, copper, precious metals and aluminum alloys.</p>	<p><b>Acetylene:</b> (systematic name: ethyne) is the chemical compound with the formula <math>C_2H_2</math>. It is a hydrocarbon and the simplest alkyne. This colorless gas is widely used as a fuel and a chemical building block.</p>
<p><b>Brass:</b> a yellow alloy of copper and zinc.</p>	<p><b>Nickel Silver:</b> (German Silver) a white alloy of nickel, zinc, and copper.</p>
<p><b>Copper:</b> a red-brown metal, the chemical element of atomic number 29.</p>	<p><b>Bevel:</b> reduce (a square edge on an object) to a sloping edge.</p>

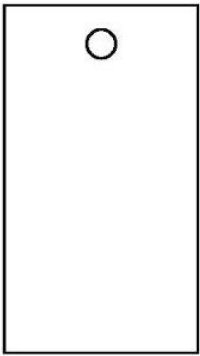


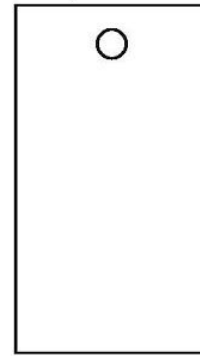
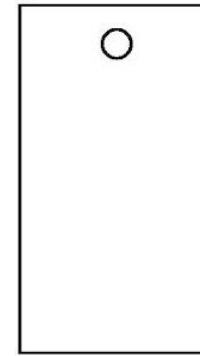
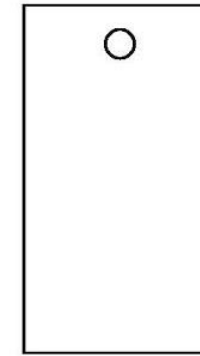
**Design Worksheet (Research):** The design worksheet on page 2 of this document is to be completed to design your dog tag. You will be getting a metal blank that you will turn into your idea. The base color of your tag will be brass and you will have the opportunity to add copper and/or nickel silver to it. Your idea must be original and have significant meaning to you. It should be a symbol that represents you in some way. You will need to make sure that you have at least two separate pieces that you will be soldering to your blank. You must also change the shape of your blank as well. Please keep these things in mind when you are designing. The following is a link to the presentation created for you on this project:


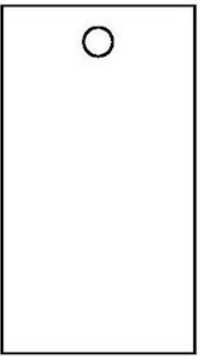

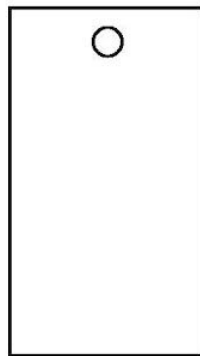
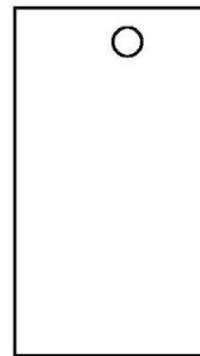
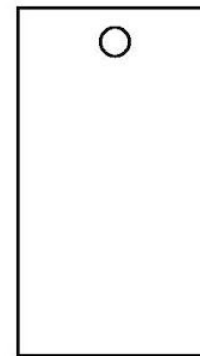
[http://prezi.com/cwewll8p2yca/?utm\\_campaign=share&utm\\_medium=copy&rc=ex0share](http://prezi.com/cwewll8p2yca/?utm_campaign=share&utm_medium=copy&rc=ex0share)

**Dog Tag (Project):** Like was stated above you will be following the presentation on the prezi. After you are done designing you may get your dog tag blank and begin watching the videos. The rubric is on page


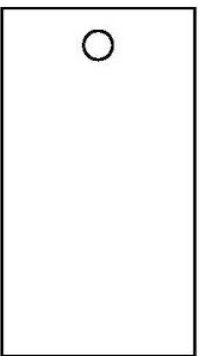

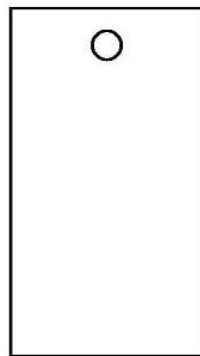

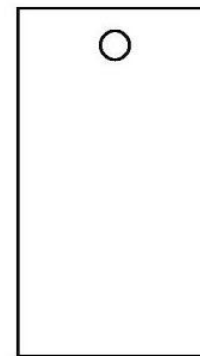



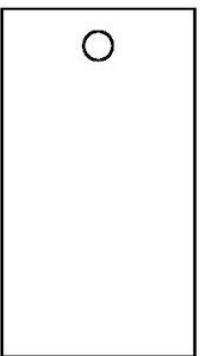

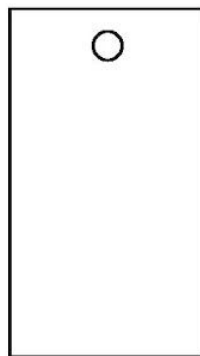

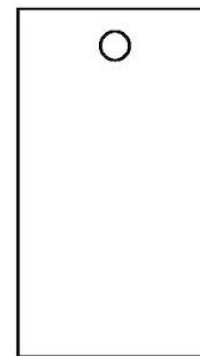
Please draw 12 different designs. This will be the major shape for the outside design of your dog tag.  
This should be a symbol that represents yourself. Circle your final choice.

					
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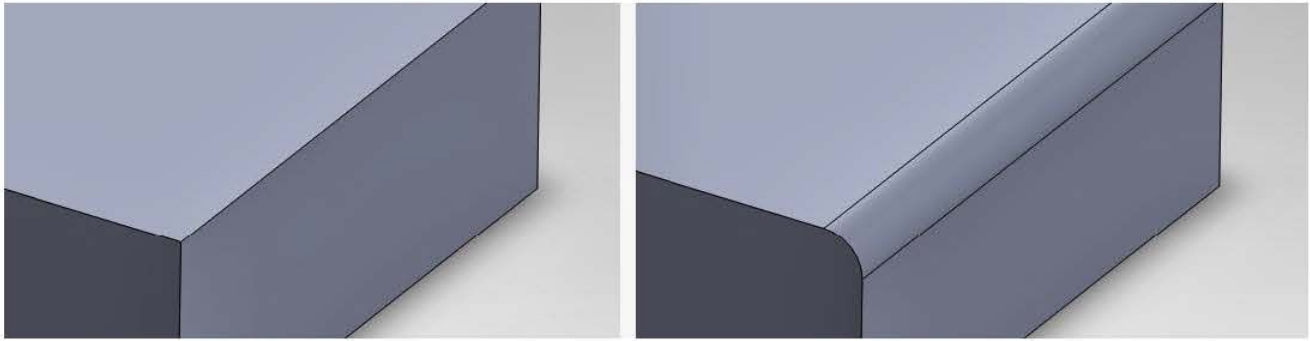
Please repeat your final design from above on each rectangle below. Finish your tag 12 different ways with at least two additional shapes for your representational symbol. Circle your final design.

					
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Name: \_\_\_\_\_ Hr. \_\_\_\_\_

**1. Bevel all edges (just on the top side)**



- 2. Use steel wool and clean all pieces**
- 3. Wash with soap and water. Carry in paper towel to not get oil from your fingers on the surface.**
- 4. Take to soldering station and put on honeycomb.**
- 5. Put on leather apron, gloves, and goggles.**
- 6. Use copper tongs only after this step to move metal pieces.**
- 7. Brush flux on all pieces that you are soldering together.**
- 8. Put solder chips on the dog tag where the other pieces will be on top**
- 9. Put the other pieces on the solder, on the dog tag.**
- 10. Turn Acetylene tank on.**
- 11. Quickly use striker to start the flame.**
- 12. Put heat on the pieces, use heat until the solder pools.**
- 13. Use tongs to put piece in the pickle, take it out after 5 seconds.**
- 14. Use tongs to take pieces to the sink**
- 15. Wash with soap and water**
- 16. Dry off and use sandpaper to sand off black surface.**

# Dog Tag

**Name:**

**Hour:**

**On Time/Late:    /10**

*Self-Check: Check off each requirement if you have completed it. Please fill in the citation(s) for the references that you used. The instructor will circle the point values earned.*

	<i>Research: Design Paper</i>	0 - 5 - 10 - 15 - 20
	Two Part Image	0 - 2 - 4 - 6 - 8 - 10
	Symbol has personal meaning	0 - 2 - 4 - 6 - 8 - 10
	Meaning:	
	Original Blank Shape Changed	0 - 2 - 4 - 6 - 8 - 10
	At least two types of metal used	0 - 2 - 4 - 6 - 8 - 10
	Pieces do not hang over the edges	0 - 2 - 4 - 6 - 8 - 10
	Edges Beveled just on top	0 - 1 - 2 - 3 - 4 - 5
	All Edges Filed/Smooth	0 - 1 - 2 - 3 - 4 - 5
	Pieces successfully soldered	0 - 1 - 2 - 3 - 4 - 5
	Tag is polished completely	0 - 1 - 2 - 3 - 4 - 5
	Balance	0 - 1 - 2 - 3 - 4 - 5
	Creativity	0 - 1 - 2 - 3 - 4 - 5
	Originality	0 - 1 - 2 - 3 - 4 - 5
	MLA Citation for imagery if used from internet:	
		0 - 10
<b>Total Points</b>		<b>/125</b>

Notes/Additional Citations: