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## Introduction to Welding & Metal Fabrication

Teacher: Mr. Boyes  
Classroom: AG Shop  
Email: tboyes@maxwellusd.net  
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### Welcome to the Weld Shop!

Get ready to fuse, fabricate, and create! This course is a hands-on introduction to the art and science of welding. You will learn how to safely join and cut metal using industry-standard equipment. You will gain the skills to turn raw steel into strong, useful, and impressive projects. Let's get to work!


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### Key Learning Areas

-  **Safety First:** The absolute foundation of our work. You will learn critical safety standards for welding and metal fabrication.
  -  **Welding Processes:** You'll receive hands-on training in **SMAW (Stick)**, **GMAW (MIG)**, and **Oxy-Acetylene** cutting and welding.
  -  **Metal Fabrication:** Learn the complete process of taking a project from concept to reality, including layout, cutting, fitting, and finishing.
  -  **Blueprints & Shop Math:** Develop the essential skills to read technical drawings and apply mathematical concepts to your projects.
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Our Shop Rules & Expectations	Grading Breakdown
1. <b>Safety is Your #1 Job.</b> Proper <b>Personal Protective Equipment (PPE)</b> is mandatory at all times in the shop. This includes your	<b>Shop Projects (50%)</b>   The quality, craftsmanship, and completion of your hands-on work.

welding helmet, jacket, gloves, and leather boots.	
2. <b>Respect the Arc.</b> Never look at a welding arc without a proper helmet. Be aware of your surroundings and protect others from arc flash by using welding screens.	<b>Safety &amp; Daily Participation (30%)</b> Based on your daily safety habits, positive attitude, and focus in the shop.
3. <b>Focus on Your Work.</b> The shop is not a place for horseplay. Hot metal, high voltages, and compressed gases demand your full attention.	<b>FFA / Supervised Agricultural Experience (SAE) (10%)</b> Participation in FFA activities and/or completion of your SAE project.
4.  <b>Phone-Free Zone.</b> Upon entering the class, you will place your cell phone in the designated locked container. It will be returned at the end of the period.	<b>Knowledge Checks &amp; Quizzes (10%)</b> Written tests on safety procedures and tool identification.
5. <b>Clean Up is a Team Sport.</b> We all work together to clean the shop, cool down metal, and safely store tools during the last 10 minutes of class.	
6. <b>Meet Your Deadlines.</b> Late work will be accepted for reduced credit (10% deduction per day late) up to one week past the due date.	

Required PPE & Materials	Stay Connected & Safe!
* <b>Welding Helmet</b> (Auto-darkening recommended) * <b>Welding Jacket or Leathers</b> * <b>Gauntlet-style Welding Gloves</b> * <b>Leather, Steel-Toed Boots</b> * <b>Pencil</b>	Scan the code for links to our FFA Chapter and the Tool Safety video playlist.  (You can paste your generated QR code image here)