

Weld It Hot



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Audubon High School
2021 Extern at The Iron Shop

Part I: Overview of Workplace

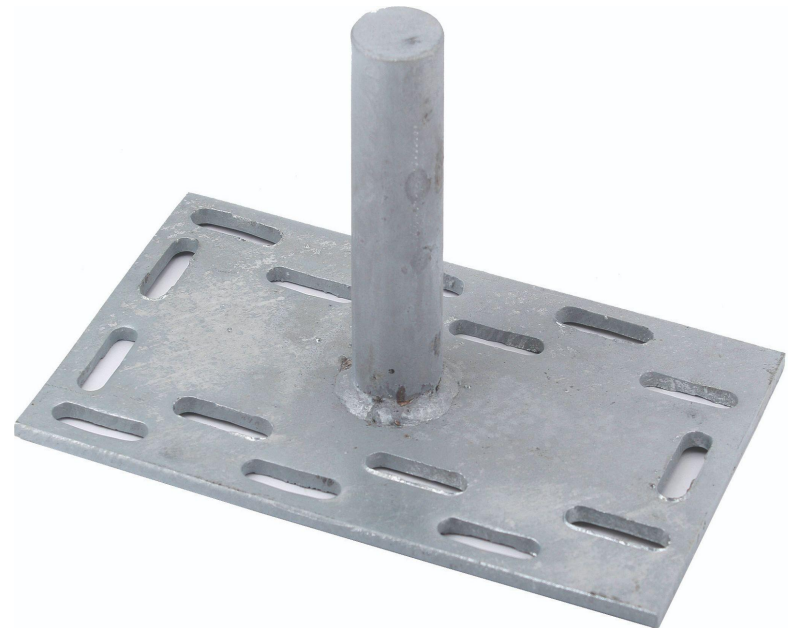
The Iron Shop was started in 1980 by John Asberry. It's located in Exira, IA and has always been in its current location. The building has been added on to two times and they are in the process of completing a third addition. The Iron Shop is now a partnership between John and his son, Charlie, and they specialize in welding, repair, and tires. The Iron Shop does not have a sign and is not publicly advertised, but there's always plenty of work to be done and customers come from across the state.

Part II: Workplace Focus

In the welding shop we were repairing existing parts or pieces of equipment or products. My project will focus on a partnership between local welding shops and businesses and part production, fabrication, and repair.

Sample products:

- Mineral feeder base
- Generator holding plate
- Mower wheel spindle repair
- Wheel bearing replacement



Part III: Introduce the Project or Problem

I need meaningful, specific tasks/products for welding students to complete that meet industry standards, if personal projects are not available.

I learned industry skills and competencies that can be transferred to the classroom to provide support to students and local businesses.

The public product will be simple pin parts to be used in local swine facilities.



Part IV: Standards, Driving and Essential Questions

Iowa CTE Welding Standard:

3.3 - Use welding tools, such as MIG, TIG, arc, forge, and furnace, and the equipment and assembly processes appropriate to the design criteria of a specific product to result in a finished product that meets industry standards.

5. - Students understand the purposes and processes of inspection and quality control in welding manufacturing processes.

5.1 - Know the reasons for inspection and quality control in the manufacturing of welded parts.

Part IV: Standards, Driving and Essential Questions

Driving and Essential Questions:

What standards/tolerances are required?

How will those standards/tolerances be achieved consistently?

What is the timeline for the product or project?

What safety procedures and equipment are necessary?



Part V: Extern Host Role

My Extern host will be involved by providing verbal feedback regarding the quality of the welds, weld placement, penetration, and strength testing.

John Asberry, Owner
The Iron Shop, Exira, IA

Charlie Asberry, Owner
The Iron Shop, Exira, IA



Part VI: Design Elements Checklist

Student Voice and Choice

The project allows students (with teacher guidance) to make choices:

- About what they create by allowing students the choice to design and create their own welding projects or I will provide industry-supported projects to be completed during down time or while waiting for supplies.
- On how they use their time by allowing them to manage their time independently by practicing their welding skills until they meet competencies to complete individualized or industry projects.
- About how they will work by allowing students to choose to work independently or in pairs to complete projects. Welding is often benefited by the support of another person.

Thank You

Thank you to all the Externship coordinators and facilitators. This has been an incredibly valuable learning experience, one of the most relevant and useful professional development activities I've engaged in throughout my career.