

**BERTHA-HEWITT HIGH SCHOOL**  
**Fall Semester Curriculum Map 2015-16**  
**Steve Pauly – Instructor**  
**Course Length: 18 weeks (90 hours)**  
**Program code: 019901**  
**Course code: 54**

*Academic Standard Area:* **Elective** *Course Title/Strand:* **Welding** *Grade Level:* **10-12**

*Textbook & Copyright:* **Welding Principles and Applications 2012**

WEEK #	TIMELINE	CONTENT/UNIT/SUB-STRAND	PROCESS/ACTIVITY/STANDARD	GOALS/BENCHMARK	ASSESSMENT	RESOURCES
1	2 days	Introduction to Oxy-Acetylene welding.	Lecture and discussion groups	Define welding, brazing, flame cutting and soldering.	Written quiz	Welding Principles and Applications 2012
1	2 days	Welding safety	Lecture, discussion groups and safety tour	Students will wear and be taught how to wear goggles, safety glasses, location of fire extinguishers, fire blanket.	Written quiz, visual observation by teacher continuously in the shop	Welding Principles and Applications 2012
2	5days	Use and procedure of operating oxyacetylene equipment	Lecture, study guide, student notes, hands on operation a procedure	Each student will demonstrate procedure for operating, care and maintenance of oxyacetylene equipment	Written test Hands on operation test pass/fail	Welding Principles and Applications 2012
3	1 day	Metal identification,	Handout and hands-on procedure of identifying types of metal using a spark test	Students will identify samples of metal by the spark test	Students will correctly identify 5 examples of metal at 100%	Welding Principles and Applications 2012
3	15 days	Mild Steel, brazing and arc welding techniques	Brief demonstration followed by the student activity of mild steel, brazing, and arc welding a bead, flat weld, lap weld, outside corner weld and a fillet weld.	Each student will participate in doing each of the welds.	All students must turn in a weld of each activity at the end of the hour. Pass/fail	Welding Principles and Applications 2012
7-9	15 days	Mild steel, brazing and arc welding graded Fillet, Outside Corner, lap and flat welds.	Students will make 12 welds for grades in the welding shop.	Student must receive a score of at least 8 points out of a ten point scoring system on each weld.	Each student must complete all welds of a score of 8 points to proceed onto welding projects	Welding Principles and Applications 2012
	5 days	Design welding project to be welded in class	Students will design a welding project with a minimum of 25	Students must complete project in five weeks	Student project must show excellent	Welding Principles and Applications

10			welds.	time.	workmanship	2012
11-15	25 days	Work in shop on welding projects.	Students will construct a welding project with a minimum of 25 welds.	Students must complete project in five weeks of time.	Student project must show excellent workmanship.	Welding Principles and Applications 2012
16 -18	15 days	Work in shop on welding projects.	Students will construct a welding project with a minimum of 20 welds	Students must complete project in three weeks of time.	Student project must show excellent workmanship	Welding Principles and Applications 2012

*Check the MN Dept of Ed website for Academic Standard information*