

GRASSO TECHNICAL HIGH



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Welding and Metal Fabrication



In Grade 12, on-site flat, horizontal, vertical and overhead application welding skills are demonstrated and practiced by students. Characteristics of stainless steel and aluminum are taught and specific welding techniques are demonstrated and practiced. Advanced pipe and tube welding is demonstrated and practiced. They prepare and practice for national welding certification tests. They will demonstrate the ability to complete a job application, a practice interview and have entry-level job readiness and

trade skills. They will perform school welding projects for



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Exploratory and Introduction

In Grade 9, Students deciding to enter the field of Welding and Metal Fabrication will be introduced to the basics of safety and sanitation, as well as equipment identification and use. Students learn about the variety of careers available in the welding and metal fabrication industry, hand tools and shop equipment. Different modes of welding are demonstrated and practiced.



Basics of Welding

In Grade 10, arc welding is demonstrated and practiced. Students prepare sections for joints, fillets and grooves and then test-weld. Proper use of machine cutting tools is demonstrated and then practiced by students. Oxy-fuel cutting and joining processes are taught and practiced, and quality is examined and diagnosed. Gas Metal Arc Welding applications, parameters, gases, wire types and sizes are studied, demonstrated and practiced.



Advanced Welding

In Grade 11, industry weld symbols are defined and applied to blueprint interpretation. Metal identification, properties and applications are taught and practiced. Destructive and non-destructive welding inspection are demonstrated and practiced. Pipe welding is introduced and demonstrated. Flux Core Arc Welding, Submerged Arc Welding, Plasma Arc Welding and Gas Tungsten Arc Welding are introduced with discussion and exercises on procedures and applications. Students begin preparation for certification assessments. They will perform school welding projects for customers. Students reaching an acceptable level of proficiency may be eligible for Work-based Learning (WBL).