About This Resource

In January 2016 a planning session took place in Vancouver, BC. It brought together educators who teach courses in metal work and fabrication. These courses expose students to fundamental metalworking skills needed for careers in the metalworking trades. The purpose of the planning session was to create a Manufacturing—Metal Work module for the Youth Explore Trades Skills course.

The Youth Explore Trades Skills resource project was tasked with the development of learning resources to support the BC Ministry of Education’s Youth Explore Trades Skills Program Guide. During the planning session, educators felt the resources must meet a range of student and teacher needs. They designed each activity as a foundation lesson with extension activities for further growth of knowledge.

The resource introduces students to the fields of metalworking and manufacturing, and provides units in fabrication, welding, and machining. Each unit is built in self-contained modules that will equip both new and experienced teachers with easily navigable, ready-to-use lessons.

In order to align with the existing Youth Explore Trades Skills resources, the Metal Work modules follow the layout and design of the original Carpentry, Plumbing, Electrical, and Automotive modules.

Each activity can be used as a stand-alone resource or in sequence with the rest of the activities in the module. The modules can be used in conjunction with one another to create the foundations of the Explorations course. The planning team tried to create broad activities in order to allow teachers to match this resource to the tools and equipment that are available in their shop.

In this resource you will find:

- Detailed terminology related to the field of Metal Work & Manufacturing
- Detailed lists and descriptions of metal tools and equipment – both hand and power tools
- Detailed information regarding general shop safety
- Detailed lesson plans with activities, images, and video links. These activities fall under four main headings:
  - Introduction to Metal Work
  - Fabrication
  - Welding
  - Machining

All activities and lessons will be available in both PDF format and Word Doc.