



Revised: 02/19/2019
Board Approved: April 2019

JC Schools Metals Technology I Yearly Standards

Overarching Standards		
9-12.MT.LO.01 Recall and follow safety rules in the basic operations of hand and power tools		
Units	Priority Standards	Supporting Standards
Unit 1 Shop Knowledge 9 Days	9-12.MT.LO.02 Identify careers relating to the metals industry 9-12.MT.LO.03 Identify and describe the different metals used in the metal working industry 9-12.MT.LO.04 Identify and describe the fasteners used in metalworking	9-12.MT.LO.05 Evaluate the proper uses of each fastener and why they are important to the industry
Unit 2 Industrial Math 9 Days	9-12.MT.LO.06 Apply knowledge of adding and subtracting fractions to solve practical problems 9-12.MT.LO.07 Use basic industry measuring and layout tools	9-12.MT.LO.08 Demonstrate an understanding of metric and standard measuring
Unit 3 Hand Tools	9-12.MT.LO.09 Utilize hand tools to assemble a project	9-12.MT.LO.10 Demonstrate proper handling and care of hand tools. 9-12.MT.LO.11

16 Days		Identify major hand tools used in the industry and distinguish the differences between them
Unit 4 Machine Tools 19 Days	9-12.MT.LO.12 Utilize machine tools to assemble a project	9-12.MT.LO.13 Demonstrate proper handling and care of machine tools 9-12.MT.LO.14 Identify major machine tools used in the industry and distinguish the difference between them
Unit 5 Arc Welding 17 Days	9-12.MT.LO.15 Utilize the Shielded Metal Arc Welder to assemble a project	9-12.MT.LO.16 Demonstrate the basic techniques while operating the Shield Metal Arc Welder 9-12.MT.LO.17 Evaluate electrodes and explain their different uses 9-12.MT.LO.18 Identify and utilize proper personal protection equipment while welding 9-12.MT.LO.19 Develop a general knowledge of Shielded Metal Arc Welder machines and how to effectively set them up for the job to be done
Unit 6 Sheet Metal 10 Days	9-12.MT.LO.20 Utilize sheet metal tools and processes to assemble a project	9-12.MT.LO.21 Recall the basic tools while working with sheet metal 9-12.MT.LO.22 Distinguish between different options for fastening sheet metal
Unit 7 Finishing 9 Days	9-12.MT.LO.23 Utilize finishing techniques to complete a project	9-12.MT.LO.24 Identify different grades of abrasives 9-12.MT.LO.25 Demonstrate different techniques to prepare metal for a finish

		9-12.MT.LO.26 Identify the most common finishes used on the metalworking industry
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