



Revised: 02/19/2019  
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# JC Schools Metals Technology I Yearly Standards

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

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

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