



# Introduction to Electronics

## ½ credits

Unit Name Classroom expectations/ employment skills					
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
<p><b>Math</b></p> <p><b>English</b>            §110.44. (b) (14) (A)            §110.44.(b) (15)            §110.44. (b) (15) (A)            §110.44. (b) (15) (B)            §110.44. (b) (15) (C)            §110.44. (b) (15) (D)            §110.44. (b) (15) (E)            §110.44. (b) (15) (F)            §110.45. (b)(16) (A)            §110.45. (b)(16) (B)            §110.45. (b)(16) (H)  <b>Science</b></p> <p><b>Social Studies</b>            §113.36. (c) (1)            §113.36. (c) (1) (A)            §113.36. (c) (1) (B)            §113.36. (c) (1) (C)</p>	<p>§125.45 (c) (1) the student knows the employability characteristics of a successful worker in the modern workplace</p> <p>§125.45 (c) (1) (B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;</p> <p>125.45 (c) (1) (C) identify employers' expectations and appropriate work habits;</p>	<p>SCANS</p> <p>Industry dress code</p> <p>Conflict resolution In industry</p>	<p>What would indicate someone is listening to you?</p> <p>Describe the difference in speech patterns that you might use when talking to your friends compared to talking to your teacher.</p> <p>§110.44. (b) (15) (A) use the conventions of oral language effectively;</p> <p>You are paying a mechanic to fix your car. He/she charges \$35 an hour labor. He/she has taken a 15 minute coffee breaks, spent 20 minutes on the phone and hour and half for lunch. Your car is still not repaired. How would you address the problem?</p> <p>What behaviors do you not want your classmates exhibit in the classroom</p> <p>§110.45. (b)(16) (A) use conventions of oral language effectively, including word choice, grammar, and diction;</p> <p>§110.45. (b)(16) (B) use informal, standard, and technical English to meet demands of occasion, audience, and task;</p> <p>§110.45. (b)(16) (H) speak responsibly to present accurate, truthful, and ethical messages</p> <p>What is the difference between</p>	<p>discuss impact of social environment in the workplace</p> <p>.discuss/com pare <b>SCANS expectations to School Code of Conduct</b></p> <p>teachers expectations/ campus / class rules</p> <p><b>Create “Island Society”</b> Allow student to establish some classroom</p>	<p>MISD Coe of conduct</p> <p>Intel Corp Handbook</p>



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<p>§113.36. (c) (I)          §113.36. c)(15) (A)          §113.36 (c)(15)          (B) (A) (D)          §113.36. (c)(15)          (C)</p>			<p>constrictive criticism and put downs?</p> <p>Which SCAN Skills are not required in school?</p> <p>Does industry have a dress code?</p>	<p>policies          With pineapples for rewords and voting off the island for not following rule...</p> <p>reinforce on a daily basis</p>	
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Unit Name		Lab Format			
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
<p>Math §111.33 (b) (1) (B)</p> <p>English §110.45. (b) (14) (E)</p> <p>Science §112.45. (c)(2) (B) §112.47. (c) (2)(B)</p> <p>Social Studies</p>	<p>§125.45 (c) (1) (D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations;</p>	<p>Data analyses</p> <p>Hypothesis</p> <p>“Bread Crumbs”</p>	<p>You will be required to duplicate the lab your classmate used to create the lab report. What information do you need for repeatable results?</p>	<p>.lab report template</p> <p>“what you know versus</p> <p>What you need to know</p>	



# Introduction to Electronics

## 1/2 credits

Unit Name		Safety			
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
<p><b>Math</b></p> <p><b>English</b> §110.44. (b)(15)(C)</p> <p><b>Science</b> §112.42 (c)(1)(A) §112.42 (c)(1)(B) §112.43. c)(10)(A) §112.43.(c)(10)(A) (B) 112.47. (c) (5)(B) §112.42 (c)(4)(B) §112.42 (c)(4)(C)</p> <p><b>Social Studies</b> §113.36.(c)(15)(A) 1 §113.36. (c)(15)(B)</p>	<p>§125.45 (c) (1) (E) Demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.</p> <p>§125.45 (c) (4) (A) safely use hand and power tools and equipment commonly employed in industrial electronics;</p> <p>§125.45 (c) (4) (B) properly handle and dispose of humanly and/or environmentally hazardous materials used in industrial</p>	<p>Accident Injury Safety First Aid</p> <p>3 step safety program Recognize evaluate and control</p>	<p>Describe the circumstances that would make an action unsafe?</p> <p>Who is responsible for your safety?</p> <p>How many of you have ever planned to have a wreck?</p>	<p>Given various scenarios (verbal and visual) student should identify and evaluate safety hazard and formulate In both an individual and a team setting</p>	



# Introduction to Electronics

1/2 credits

	electronics;				
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# Introduction to Electronics

## 1/2 credits

Unit Name report writing/ employment skills/ classroom expectations/					
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
<p><b>Math</b></p> <p><b>English</b> §110.44.(b)(15)(B) §110.44.(b)(15)(C)</p> <p><b>Science</b> §110.44.(b)(14)(A) §110.44.(b)(15)</p> <p><b>Social Studies</b> §113.36.(c)(1)(D) §113.36.(c)(1)(B) §113.36.(c)(1)(C)</p>	<p>§125.45 (c) (2) (A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;</p>		<p>Create a step by step instruction on how to tie your shoes. Exchange papers. Can you follow the instructions and still manage not to be successful? Rewrite the instructions and exchange with another group</p>	<p>.lab reports</p> <p>team research</p>	





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## 1/2 credits

Unit Name		basic circuits			
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
<p><b>Math</b></p> <p><b>English</b></p> <p><b>Science</b>            §112.47.            (c) (5)(A)            §112.47.            (c) (5)(B)            §112.47.            (c) (6)(C)            §112.47.            (c) (6)(D)            §112.45            (c) (11)(C) §112.            45 (c) (6) (A)</p> <p><b>Social Studies</b></p>	<p>3) (A) demonstrate an understanding of magnetism as it relates to electronic circuits;</p>	<p>Atom            Electron            Conductance            Current            resistance</p>	<p>Why does an LED light when connected and does not light when leads are reversed?</p> <p>Describe the laws of electrostatic charges?</p>		





# Introduction to Electronics

## 1/2 credits

Unit Name		career exploration			
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
<b>Math</b>  <b>English</b>  <b>Science</b> §112.47.(c) (3)(C) §112.47. c) (3) (A)  <b>Social Studies</b> §113.36. (c) (18) §113.36. (c) (18 (A) §113.36. (c) (18 (B §113.37. Sociology (17) §113.37. Sociology (17) (B)	§125.45 (c) (4) (D) demonstrate knowledge of new and emerging technologies that may affect industrial electronics.		List 3 new advances in cell phone technologies in the past 6 months.  How many items do you have with a gps?	.discuss research emerging tech in tel com bio med and transportation	



# Introduction to Electronics

## ½ credits

Unit Name		simple circuits			
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
<b>Math</b> §111.33. (3)(B)	§125.45 (c) (5) (A) apply Ohm's law and power theory to industrial electronics;	Current Voltage Resistance Conductor Insulator	<b>What wattage would a resistor need in a given circuit?</b>  <b>Refer to the circuit on the board, How much voltage needs to be applied so that R1 has 3mw ?</b>	Worksheet Lab Lab report Report presentation	
<b>English</b>					
<b>Science</b> §112.47. (c) (6)(E) §112.42 (c) (6)(F)					
<b>Social Studies</b>					



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<p><b>Math</b>  §111.32. (b)(1)(B)  §111.32. (b) (3)(A)  §111.32. (b) (3)(B)  §111.32. (b) (4)(A)  <b>English</b></p> <p><b>Science</b>  §112.47.  (c) (2)(B) §112.47.  (c)(6) (E)  §112.42 (c)(6)(F)  §112.47. (c) (2)(C)  §112.47. (c) (2)(D)  §112.47. (c) (2)(E)  §112.47. (c) (2)(F)  <b>Social Studies</b></p>	<p>125.45 (c) (5)  (B) calculate and measure resistance, current, voltage, and power in series and parallel circuits;</p> <p>§125.45 (c) (5)  (D) perform electrical-electronic troubleshooting assignments;</p> <p>§125.45 (c)  (E) describe measurement techniques with analog, digital test devices</p>	<p>Polarity</p> <p>Inverse</p> <p>Square root</p> <p>Open short</p>	<p>Refer to the circuit on the board.</p> <p>What happens if R3 opens?</p> <p>If a wire is placed in parallel to R5?</p>	<p>Worksheet</p> <p>Lab</p> <p>Lab report</p> <p>Report presentation</p>	
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