Technology Engineering Education
Course(s): Exploring Technology / Inventions & Innovations / Technological Systems
Category Code: 652010

<table>
<thead>
<tr>
<th>CURRICULUM STANDARDS</th>
<th>CORRELATING PAGE NUMBERS</th>
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<tbody>
<tr>
<td><strong>STANDARD 1.0</strong></td>
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<tr>
<td>Demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace through Technology Student Association.</td>
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<tr>
<td>1.1 Demonstrate the ability to work professionally with others.</td>
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<tr>
<td>1.3 Evaluate school, community, and workplace situations by applying problem-solving and decision-making skills.</td>
<td>53–57, 99–107, 163, 193</td>
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<tr>
<td>1.4 Identify personal, teamwork and leadership skills used in various occupations.</td>
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<tr>
<td>1.5 Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.</td>
<td>27, 47, 65, 87, 90, 93, 114, 120, 149, 167, 173, 191, 209, 229, 253, 269, 281, 305, 325, 352, 382, 402, 436, 448, 506, 523, 548, 555, 563, 566, 580, 611, 648, 659</td>
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<tr>
<td><strong>STANDARD 2.0</strong></td>
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<tr>
<td>Safely use tools, materials, equipment and other technology resources.</td>
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<tr>
<td>2.1 Pass with 100% accuracy a written examination relating specifically to safety issues.</td>
<td>57, 83, 97–98, 132–135</td>
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<tr>
<td>2.2 Pass with 100% accuracy a performance examination relating specifically to tools and equipment.</td>
<td>81–99</td>
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<tr>
<td>2.3 Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.</td>
<td>81–99</td>
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<tr>
<td>2.4 List and explain the importance of safety guidelines for TSA competitive events.</td>
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<tr>
<td><strong>STANDARD 3.0</strong></td>
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<tr>
<td>Explore the key components of technological systems.</td>
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<tr>
<td>3.1 Identify the parts of a mechanical system and explain how they interact with each other.</td>
<td>89–97</td>
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<tr>
<td>3.2 Understand and construct a simple electric circuit.</td>
<td></td>
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<tr>
<td>3.3 Identify and explore the basic principles involved in fluid power.</td>
<td>491</td>
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<tr>
<td><strong>STANDARD 4.0</strong></td>
<td></td>
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<tr>
<td>Learn how to interact with technological systems.</td>
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<tr>
<td>4.1 Understand how technological systems work.</td>
<td>37–51</td>
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<tr>
<td>4.2 Read an owner’s manual for a given system and list proper maintenance procedures</td>
<td>176</td>
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<tr>
<td>STANDARD 5.0</td>
<td>Analyze how technological systems evolve.</td>
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<tr>
<td>5.1</td>
<td>Understand how to integrate technological systems.</td>
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<tr>
<td>5.2</td>
<td>Understand how a telegraph works.</td>
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<td>5.3</td>
<td>Explain how to take an invention and innovate this product to meet the current trends.</td>
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<tr>
<th>STANDARD 6.0</th>
<th>Explore and demonstrate systems adjustments.</th>
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<tr>
<td>6.1</td>
<td>Use tools, materials and machines to safely assemble and fabricate a transportation system according to specifications.</td>
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<td>6.2</td>
<td>Predict the adjustments needed to obtain a specific, desired output.</td>
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<th>STANDARD 7.0</th>
<th>Understand how to analyze and correct a system’s failure.</th>
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<tr>
<td>7.1</td>
<td>Learn how the integrity of a system is equally dependent on all of the parts that make up the system.</td>
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<td>7.2</td>
<td>Explore the cause’s system failure and diagnose, troubleshoot, and propose corrective measures for malfunctioning systems.</td>
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<tr>
<th>STANDARD 8.0</th>
<th>Recognize and forecast trends in the development of technological systems.</th>
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<tr>
<td>8.1</td>
<td>Select a common activity that requires the use of a technological system and predict how systems may change in the future with regard to trends.</td>
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<tr>
<td>8.2</td>
<td>Explain how the developmental trends of how specific technological systems have changed over time.</td>
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