

# KENTUCKY

Glencoe

# Technology

## Today and Tomorrow

Correlation with the Kentucky Overview of Technological Systems, Communication Systems, Transportation Systems, Bio-Related Systems, Construction Technology, Graphics Communication Technology, Special Problems in Technology Education courses, SCANS, National Standards of Technological Literacy, and Responses to Technology Education Evaluation Tool

Adoption Group V  
Commonwealth of  
Kentucky  
2004-2010

## Overview of Technological Systems

ACADEMIC EXPECTATIONS	CONTENT/PROCESS	PAGE REFERENCES
<b>1.2, 1.11</b>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>• define technology.</li> </ul>	<p><b>SE:</b> 18</p> <p><b>TAE:</b> R 18</p>
<b>1.1-1.3</b>	<ul style="list-style-type: none"> <li>• evaluate the consequences of technological inventions and innovations on people, society, culture, and the environment.</li> </ul>	<p><b>SE:</b> 18-21, 29, 92-95, 187, 204, 435-436, 548  <i>Tech Report:</i> 70-71, 304-305</p> <p><b>TAE:</b> AT 204            CT 187, 436            E 92, 93, 95, 548</p>
<b>2.16, 2.18</b>	<ul style="list-style-type: none"> <li>• analyze current and emerging issues (e.g., ethical, social, legal, environmental, political, and privacy) related to technology.</li> </ul>	<p><b>SE:</b> 19-21, 29, 39, 84-85, 92-95, 110, 186-187, 203-205, 315-316, 435-437, 538-541, 548, 551-552  <i>Directed Activity:</i> 64-67  <i>Tech Report:</i> 70-71</p> <p><b>TAE:</b> AT 204            CT 39, 110, 436            E 85, 92, 548</p>

## Overview of Technological Systems

ACADEMIC EXPECTATIONS	CONTENT/PROCESS	PAGE REFERENCES
<p style="text-align: center;"><b>1.1-1.4</b></p>	<ul style="list-style-type: none"> <li>explore technological concepts and processes in the contexts of communication, transportation, production, bio-related, and emerging technological systems.</li> </ul>	<p><b>SE:</b> 20, 23-26, 74-95, 107-111, 114-115, 125-133, 137-139, 189-190, 201-203, 230-243, 250-251, 276-288, 420-437, 441-461, 465-477, 481-503, 528, 530-541, 547-552  <i>Design and Problem-Solving Activity:</i> 173-175  <i>Science Connection:</i> 22, 529  <i>Tech Report:</i> 524-525</p> <p><b>TAE:</b> E 138, 505  R 25, 92</p>
<p style="text-align: center;"><b>2.3</b></p>	<ul style="list-style-type: none"> <li>apply core knowledge and technological concepts to solve technical problems.</li> </ul>	<p><b>SE:</b> 33-40  <i>Design and Problem-Solving Activity:</i> 60-61, 68-69, 173-175, 176-178, 292-294, 295-296, 297-298, 299-300, 402-403, 410-411, 412-414, 415-417, 510-513</p> <p><b>TAE:</b> DT 35</p>
<p style="text-align: center;"><b>6.1, 6.3</b></p>	<ul style="list-style-type: none"> <li>understand the dynamic nature of technology and analyze and interpret historical events, conditions, trends and issues to develop perspective on the impacts of technology on people, society, culture, and the environment.</li> </ul>	<p><b>SE:</b> 18-21, 23-27, 29, 92-95, 138, 186-189, 203-204, 434-436, 534-535, 548  <i>Tech Report:</i> 70-71, 304-305</p> <p><b>TAE:</b> AT 204  CT 187, 436  E 92, 93, 95, 548  R 95</p>

## Overview of Technological Systems

ACADEMIC EXPECTATIONS	CONTENT/PROCESS	PAGE REFERENCES
<b>1.16, 2.17</b>	<ul style="list-style-type: none"> <li>identify opportunities, characteristics, and preparation requirements for current and emerging technological occupations.</li> </ul>	<p><b>SE:</b> 81-82, 428  <i>Career File:</i> 30, 42, 58, 96, 118, 140, 168, 206, 228, 244, 258, 268, 290, 326, 346, 358, 378, 400, 438, 462, 478, 508, 542, 568  <i>Directed Activity:</i> 62-63</p> <p><b>TAE:</b> CT 346, 478  E 206, 244, 268, 326. 438, 462, 542</p>
<b>2.36-2.38</b>	<ul style="list-style-type: none"> <li>develop strategies and work habits that will lead to success and prepare the student for a future in a technological world.</li> </ul>	<p><b>SE:</b> 30, 35-36, 36-37, 37-38, 38-39, 40, 43</p> <p><b>TAE:</b> DT 35  E 36, 38  AT 36  EN 37  CT 38, 39  R 40</p>
<b>5.1-5.5</b>	<ul style="list-style-type: none"> <li>understand technological systems (e.g., communication, production, transportation, bio-related and other emerging systems) and the interrelationship between the resource/input, process, output, and feedback elements of these systems.</li> </ul>	<p><b>SE:</b> 46-50, 52-55, 56, 80-89, 193, 195-201, 311-323, 427-429, 431-432, 535</p> <p><b>TAE:</b> E 48, 54, 81, 82  AT 47  EN 54, 82  CT 46, 53, 195  R 46, 48, 52, 80, 83  LA 201  B 311, 323, 431  RT 314, 427  BG 322</p>

## Overview of Technological Systems

ACADEMIC EXPECTATIONS	CONTENT/PROCESS	PAGE REFERENCES
<b>2.37, 5.4</b>	<ul style="list-style-type: none"> <li>develop competencies in the safe and efficient use of tools, machines, materials, and processes.</li> </ul>	<b>SE:</b> 11-13, 36-37, 42, 52, 86, 256, 357  <b>TAE:</b> E 36, 86 AT 36 EN 42, 256 R 357 RS 52
<b>2.17</b>	<ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to careers.</li> </ul>	<b>SE:</b> 10, 30, 34-39, 81-83 <i>Directed Activity:</i> 62-63 <i>Career File:</i> 244 <b>TAE:</b> DT 35 E 30, 34, 35, 38, 82 AT 35 EN 30, 37, 81, 82 CT 38, 39 R 63, 83 NS 62
<b>2.38</b>	<ul style="list-style-type: none"> <li>develop personal and professional leadership skills through participation in Kentucky Technology Student Association (KTSA) student organization activities.</li> </ul>	<b>SE:</b> 40 (TSA)  <b>TAE:</b> R 40

## Overview of Technological Systems

ACADEMIC EXPECTATIONS	CONTENT/PROCESS	PAGE REFERENCES
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>apply concepts from mathematics, science, and communications in the context of technology education.</li> </ul>	<p><b>SE:</b> 28, 58, 59, 303, 404-407, 509  <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475  <i>Science Connection:</i> 28, 69</p> <p><b>TAE:</b> CA 404  R 59, 509  E 58</p>

## Communication Systems

ACADEMIC EXPECTATIONS	CONTENT/PROCESS	PAGE REFERENCES
<b>6.2, 1.11</b>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>understand and appreciate both the importance and the dynamic nature of communication technologies.</li> </ul>	<p><b>SE:</b> 21, 22, 76-80, 87-88, 126-127, 277-288  <i>Design and Problem Solving Activity:</i> 173-175, 299-300</p> <p><b>TAE:</b> E 22, 76, 88, 173  AT 126  EN 278  CT 78  R 77, 78, 80, 278  NS 299  CA 173, 299, 301</p>

<b>Communication Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.3, 6.2</b>	<ul style="list-style-type: none"> <li>understand the concept of appropriate technologies as it relates to multi-cultural and global perspectives.</li> </ul>	<b>SE:</b> 18-19, 29, 186-187, 191, 192-193  <b>TAE:</b> E 19, 186, 187 AT 186 EN 186, 192, 193 CT 187 R 18 RT 186, 192 RS 18
<b>2.36</b>	<ul style="list-style-type: none"> <li>identify opportunities, characteristics, and preparation requirements for current and emerging communication technology-related occupations.</li> </ul>	<b>SE:</b> 81-82 <i>Career File:</i> 30, 42, 96, 118, 140, 244, 478 <i>Directed Activity:</i> 62-63  <b>TAE:</b> CT 478 E 81, 244
<b>1.1</b>	<ul style="list-style-type: none"> <li>explore and experience the organization and management structure of communication-related industries.</li> </ul>	<b>SE:</b> 79-80, 80-89, 90-91, 91-94, 95 <i>Career File:</i> 30, 42, 96, 118, 140, 244, 478  <b>TAE:</b> E 82, 84, 244 EN 81, 82, 84, 85 CT 91, 478 R 80, 83, 92 B 90 RT 90

<b>Communication Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.13</b>	<ul style="list-style-type: none"> <li>• apply core knowledge and technological concepts.</li> </ul>	<p><b>SE:</b> 33-40  <i>Design and Problem-Solving Activity:</i> 60-61, 68-69, 173-175, 176-178, 292-294, 295-296, 297-298, 299-300, 402-403, 410-411, 412-414, 415-417, 510-513</p> <p><b>TAE:</b> DT 35</p>
<b>5.1, 6.2</b>	<ul style="list-style-type: none"> <li>• develop creative problem-solving, critical thinking, teamwork, leadership and personal responsibility skills through collaborative application of communication technologies and the solution of technical problems.</li> </ul>	<p><b>SE:</b> 34-36, 37-39, 60-61, 68-69, 146-147, 173-175</p> <p><b>TAE:</b> DT 35  E 34, 36, 38, 61  AT 36  EN 37  CT 38, 39, 146  NS 60  CA 68, 173</p>
<b>1.16</b>	<ul style="list-style-type: none"> <li>• use computer-based technologies to communicate, process, manipulate, collect, and apply information to solve technical problems in communication.</li> </ul>	<p><b>SE:</b> 100-108, 109-114, 115-118, 147, 179-181  <i>Tech Report:</i> 70-71  <i>Directed Activity:</i> 170-172, 176-178, 179-181</p> <p><b>TAE:</b> E 100, 102  AT 102, 112, 114  EN 104  CT 110, 111, 147  R 100, 101, 102  B 115  RT 102, 107  CA 170, 176, 179</p>

<b>Communication Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.35, 2.17</b>	<ul style="list-style-type: none"> <li>• apply the systems approach to analyze and solve communication systems-based technical problems.</li> </ul>	<b>SE:</b> 46-50, 54-57, 68-69 <i>Design and Problem Solving Activity:</i> 68-69, 176-178  <b>TAE:</b> E 48 AT 47 CT 46, 55 R 46, 48 CA 68, 176
<b>2.31</b>	<ul style="list-style-type: none"> <li>• demonstrate proficiency in the safe and efficient use and care of equipment, materials, processes, and concepts related to the applications of communications systems technologies.</li> </ul>	<b>SE:</b> 11-13, 36-37, 42, 52, 86, 256, 357  <b>TAE:</b> E 36, 86 AT 36 EN 42, 256 R 357 RS 52
<b>2.36, 2.38</b>	<ul style="list-style-type: none"> <li>• develop personal and professional leadership skills through participation in Kentucky Technology Student Association activities.</li> </ul>	<b>SE:</b> 40 (TSA)  <b>TAE:</b> CT 40

<b>Communication Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>6.2</b>	<ul style="list-style-type: none"> <li>develop skills necessary to work effectively with others to solve problems and make decisions involving human and material resources, processes, and communication related technological systems.</li> </ul>	<p><b>SE:</b> 10, 30, 34-36, 37-39, 60-61, 68-69, 146-147, 173-175</p> <p><b>TAE:</b> DT 35 E 34, 36, 38, 61 AT 36 EN 37 CT 38, 39, 146 NS 60 CA 68, 173</p>
<b>2.15, 5.4</b>	<ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to careers.</li> </ul>	<p><b>SE:</b> 10, 30, 34-39, 81-83 <i>Directed Activity:</i> 62-63 <i>Career File:</i> 244</p> <p><b>TAE:</b> DT 35 E 30, 34, 35, 38, 82 AT 35 EN 30, 37, 81, 82 CT 38, 39 R 63, 83 NS 62</p>
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>apply concepts from mathematics, science, and communications in the context of technology education.</li> </ul>	<p><b>SE:</b> 28, 58, 59, 303, 404-407, 509 <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475 <i>Science Connection:</i> 28, 69</p> <p><b>TAE:</b> CA 404 R 59, 509 E 58</p>

<b>Transportation Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.1, 1.11</b>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>engage in meaningful, hands-on, minds-on and conceptual activities to apply transportation-related concepts, processes, and systems.</li> </ul>	<p><b>SE:</b> 421, 426, 427-429, 431-437  <i>Design and Problem Solving Activity:</i> 510-513, 514-518, 519-524  <i>Tech Report</i> 418-419  <i>Mathematics Connection:</i> 430  <i>Career File:</i> 438</p> <p><b>TAE:</b> NS 510, 514  CA 510, 514, 520  CL 510  E 432, 433, 513, 514, 515, 517  CT 427, 429, 432, 516  B 426, 431  R 427, 428  EN 433  AS 437</p>
<b>1.3, 6.2</b>	<ul style="list-style-type: none"> <li>understand the concept of appropriate technologies as it relates to multi-cultural and global perspectives.</li> </ul>	<p><b>SE:</b> 18-19, 29, 186-187, 191, 192-193</p> <p><b>TAE:</b> E 19, 186, 187  AT 186  EN 186, 192, 193  CT 187  R 18  RT 186, 192  RS 18</p>

<b>Transportation Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.36</b>	<ul style="list-style-type: none"> <li>identify opportunities, characteristics, and preparation requirements for current and emerging transportation technology-related occupations.</li> </ul>	<p><b>SE:</b> 81-82, 428  <i>Career File:</i> 438, 462, 478            508  <i>Directed Activity:</i> 62-63</p> <p><b>TAE:</b> CT 478            E 81, 82, 438, 462            EN 82</p>
<b>6.1</b>	<ul style="list-style-type: none"> <li>explore and experience the organization and management structure of transportation-related industries.</li> </ul>	<p><b>SE:</b> 79-80, 80-89, 90-91, 91-94, 95  <i>Career File:</i> 438, 462, 478</p> <p><b>TAE:</b> E 82, 84, 244, 438, 462            EN 81, 82, 84, 85            CT 91, 478            R 80, 83, 92            B 90            RT 90</p>
<b>6.3</b>	<ul style="list-style-type: none"> <li>apply core knowledge and technological concepts.</li> </ul>	<p><b>SE:</b> 33-40  <i>Design and Problem-Solving Activity:</i> 60-61, 68-69, 173-175, 176-178, 292-294, 295-296, 297-298, 299-300, 402-403, 410-411, 412-414, 415-417, 510-513</p> <p><b>TAE:</b> DT 35</p>

<b>Transportation Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>5.1, 5.5</b>	<ul style="list-style-type: none"> <li>develop creative problem-solving, critical thinking, teamwork, leadership and personal responsibility skills through collaborative application of transportation technologies and the solution of technical problems.</li> </ul>	<p><b>SE:</b> 34-36, 37-39, 60-61, 68-69, 427  <i>Mathematic Connection:</i> 430  <i>Career File:</i> 438  <i>Design and Problem Solving Activity:</i> 510-513, 514-518, 519-523</p> <p><b>TAE:</b> DT 35  E 34, 36, 38, 61  AT 36, 437  EN 37, 433  CT 38, 39, 427, 516  NS 60  CA 68  RT 427  R 428  B 431  NS 510, 514  CA 510, 514, 520  CL 510</p>
<b>1.16</b>	<ul style="list-style-type: none"> <li>use computer-based technologies to communicate, process, manipulate, collect, and apply information to solve technical problems in transportation.</li> </ul>	<p><b>SE:</b> 100-108, 109-114, 115-118  <i>Tech Report:</i> 70-71  <i>Directed Activity:</i> 170-172, 176-178, 179-181, 510-513, 514-518, 519-523</p> <p><b>TAE:</b> E 100, 102  AT 102, 112, 114  EN 104  CT 110, 111, 147  R 100, 101, 102  B 115  RT 102, 107  CA 170, 176, 179</p>

<b>Transportation Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.3, 5.1</b>	<ul style="list-style-type: none"> <li>• apply the systems approach to analyze and solve transportation systems-based technical problems.</li> </ul>	<p><b>SE:</b> 46-50, 54-57, 68-69 <i>Design and Problem Solving Activity:</i> 68-69, 176-178, 510-513, 514-518, 519-523</p> <p><b>TAE:</b> E 48 AT 47 CT 46, 55 R 46, 48 CA 68, 176 NS 510, 514 CA 510, 514, 520 CL 510</p>
<b>2.31</b>	<ul style="list-style-type: none"> <li>• demonstrate proficiency in the safe and efficient use and care of equipment, materials, processes, and concepts related to the applications of transportation systems technologies.</li> </ul>	<p><b>SE:</b> 11-13, 36-37, 42, 52, 86, 256, 357</p> <p><b>TAE:</b> E 36, 86 AT 36 EN 42, 256 R 357 RS 52</p>
<b>5.1, 6.2</b>	<ul style="list-style-type: none"> <li>• develop skills necessary to work effectively with others to solve problems and make decisions involving human and material resources, processes, and transportation related technological systems.</li> </ul>	<p><b>SE:</b> 10, 30, 34-36, 37-39, 60-61, 68-69, 146-147, 173-175</p> <p><b>TAE:</b> DT 35 E 34, 36, 38, 61 AT 36 EN 37 CT 38, 39, 146 NS 60 CA 68, 173</p>

<b>Transportation Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.37, 2.38</b>	<ul style="list-style-type: none"> <li>develop personal and professional leadership skills through participation in Kentucky Technology Student Association activities.</li> </ul>	<b>SE:</b> 40 (TSA)  <b>TAE:</b> R 40
<b>2.17, 5.4</b>	<ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to careers.</li> </ul>	<b>SE:</b> 10, 30, 34-39, 81-83 <i>Directed Activity:</i> 62-63 <i>Career File:</i> 244  <b>TAE:</b> DT 35 E 30, 34, 35, 38, 82 AT 35 EN 30, 37, 81, 82 CT 38, 39 R 63, 83 NS 62
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>apply concepts from mathematics, science, and communications in the context of technology education.</li> </ul>	<b>SE:</b> 28, 58, 59, 303, 404-407, 509 <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475 <i>Science Connection:</i> 28, 69  <b>TAE:</b> CA 404 R 59, 509 E 58

<b>Bio-Related Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.6, 1.11</b>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>understand and appreciate both the importance and the dynamic nature of bio-related technologies.</li> </ul>	<p><b>SE:</b> 527, 528, 530-543, 545-557, 559-569  <i>Tech Report:</i> 524-525  <i>Science Connection:</i> 529  <i>Career File:</i> 542, 568  <i>Mathematics Connection:</i> 558  <i>Directed Activity:</i> 570-572, 573-574</p> <p><b>TAE:</b> NS 527, 545, 570, 573  AT 545  DT 549  CA 570, 573  E 527, 528, 530  RT 530, 540, 551  EN 533, 537, 538  R 533  B 535, 548  CT 536, 540, 541  RS 554, 560, 565</p>
<b>6.3</b>	<ul style="list-style-type: none"> <li>engage in meaningful, hands-on, minds-on and conceptual activities to apply bio-related concepts, processes, and systems.</li> </ul>	<p><b>SE:</b> 535-536, 536-538  <i>Directed Activity:</i> 570-572, 573-574</p> <p><b>TAE:</b> NS 570, 573  CA 570, 573  E 570, 571, 572  EN 537, 538, 574  RS 574  B 535  CT 536</p>

<b>Bio-Related Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.36</b>	<ul style="list-style-type: none"> <li>identify opportunities, characteristics, and preparation requirements for current and emerging bio-related technology occupations.</li> </ul>	<b>SE:</b> 81-82 <i>Career File:</i> 542, 568 <i>Directed Activity:</i> 62-63  <b>TAE:</b> E 81, 82, 542 EN 82 R 428, 62, 63 NS 62
<b>1.1</b>	<ul style="list-style-type: none"> <li>explore and experience the organization and management structure of bio-related technology based industries.</li> </ul>	<b>SE:</b> 79-80, 80-89, 90-91, 91-94, 95, 536-541 <i>Career File:</i> 542, 568  <b>TAE:</b> E 82, 84, 244, 438, 462 EN 81, 82, 84, 85 CT 91, 478 R 80, 83, 92 B 90 RT 90
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>integrate and apply core knowledge and technological concepts.</li> </ul>	<b>SE:</b> 33-40 <i>Design and Problem-Solving Activity:</i> 60-61, 68-69, 173-175, 176-178, 292-294, 295-296, 297-298, 299-300, 402-403, 410-411, 412-414, 415-417, 510-513  <b>TAE:</b> DT 35

<b>Bio-Related Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>5.1, 5.5</b>	<ul style="list-style-type: none"> <li>integrate and develop creative problem-solving, critical thinking, teamwork, leadership and personal responsibility skills through collaborative application of bio-related technologies and the solution of technical problems.</li> </ul>	<p><b>SE:</b> 34-36, 37-39, 60-61, 68-69, 146-147, 173-175 <i>Career File:</i> 542, 568</p> <p><b>TAE:</b> DT 35 E 34, 36, 38, 61 AT 36 EN 37 CT 38, 39, 146 NS 60 CA 68, 173</p>
<b>1.16</b>	<ul style="list-style-type: none"> <li>use computer-based technologies to communicate, process, manipulate, collect, and apply information to solve technical problems in bio related technologies.</li> </ul>	<p><b>SE:</b> 100-108, 109-114, 115-118, 147, 179-181 <i>Tech Report:</i> 70-71 <i>Directed Activity:</i> 170-172, 176-178, 179-181, 570-572, 573-574 <i>Career File:</i> 542, 568</p> <p><b>TAE:</b> E 100, 102 AT 102, 112, 114 EN 104 CT 110, 111, 147 R 100, 101, 102 B 115 RT 102, 107 CA 170, 176, 179</p>

<b>Bio-Related Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.3, 5.1</b>	<ul style="list-style-type: none"> <li>apply the systems approach to analyze and solve bio-related technology systems-based technical problems.</li> </ul>	<p><b>SE:</b> 46-50, 54-57, 68-69, 536-541  <i>Design and Problem Solving Activity:</i> 68-69, 176-178  <i>Directed Activity:</i> 570-572, 573-574  <i>Career File:</i> 542, 568</p> <p><b>TAE:</b> E 48  AT 47  CT 46, 55  R 46, 48  CA 68, 176</p>
<b>1.3, 1.1</b>	<ul style="list-style-type: none"> <li>observe and explore the interrelationships between and among bio-related technology systems and other technological systems.</li> </ul>	<p><b>SE:</b> 527, 534-536, 536-538, 540-541, 545, 554-555, 556-557, 560-562, 563-564, 564-566, 566-567  <i>Career File:</i> 542, 568</p> <p><b>TAE:</b> E 527, 542, 543  RS 543  NS 527, 545  AT 545</p>
<b>2.31, 2.36</b>	<ul style="list-style-type: none"> <li>demonstrate proficiency in the safe and efficient use and care of equipment, materials, processes, and concepts related to the applications of bio-related technologies.</li> </ul>	<p><b>SE:</b> 11-13, 36-37, 42, 52, 86, 256, 357</p> <p><b>TAE:</b> E 36, 86  AT 36  EN 42, 256  R 357  RS 52</p>

<b>Bio-Related Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.37, 2.38</b>	<ul style="list-style-type: none"> <li>develop personal and professional leadership skills through participation in Kentucky Technology Student Association activities.</li> </ul>	<b>SE:</b> 40 (TSA)  <b>TAE:</b> R 40
<b>2.17</b>	<ul style="list-style-type: none"> <li>develop skills necessary to work effectively with others to solve problems and make decisions involving human and material resources, processes, and bio-related technological systems.</li> </ul>	<b>SE:</b> 10, 30, 34-36, 37-39, 60-61, 68-69, 146-147, 173-175  <b>TAE</b> DT 35 E 34, 36, 38, 61 AT 36 EN 37 CT 38, 39, 146 NS 60 A 68, 173
<b>2.17</b>	<ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to careers.</li> </ul>	<b>SE:</b> 10, 30, 34-39, 81-83 <i>Directed Activity:</i> 62-63 <i>Career File:</i> 244  <b>TAE:</b> DT 35 E 30, 34, 35, 38, 82 AT 35 EN 30, 37, 81, 82 CT 38, 39 R 63, 83 NS 62

<b>Bio-Related Systems</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>apply concepts from mathematics, science, and communications in the context of technology education.</li> </ul>	<p><b>SE:</b> 28, 58, 59, 303, 404-407, 509  <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475  <i>Science Connection:</i> 28, 69</p> <p><b>TAE:</b> CA 404  R 59, 509  E 58</p>

<b>Construction Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>

<b>Construction Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.20, 1.1</b>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>develop an awareness of the significance of construction technology in the past, present, and future.</li> </ul>	<p><b>SE:</b> 307, 308-312, 314-325, 329, 330-345  <i>Career File:</i> 326, 346, 358, 378, 400  <i>Tech Report:</i> 304-305  <i>Science Connection:</i> 313, 336, 371  <i>Mathematics Connection:</i> 354, 394</p> <p><b>TAE:</b> NS 307  AT 307, 324  E 308, 315, 316  CT 310, 317, 319  R 311, 314, 318  RT 314  EN 321  B 323, 330, 334  RS 325</p>
<b>5.5, 1.11</b>	<ul style="list-style-type: none"> <li>apply individual and group problem-solving skills in construction technology.</li> </ul>	<p><b>SE:</b> 34-36, 37-39, 60-61, 68-69  <i>Design and Problem Solving Activity:</i> 402-403, 404-409, 410-414, 415-417</p> <p><b>TAE:</b> DT 35  E 34, 36, 38, 61  AT 36  EN 37  CT 38, 39  NS 60, 402  CA 68, 402</p>

<b>Construction Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.31, 5.1</b>	<ul style="list-style-type: none"> <li>develop responsible and safe work attitudes and the ability to function as a member of a team.</li> </ul>	<p><b>SE:</b> 11-13, 36-37, 42, 52, 86, 256, 357  <i>Design and Problem Solving Activity:</i> 402-403, 404-409, 410-414, 415-417</p> <p><b>TAE:</b> E 36, 86  AT 36  EN 42, 256  R 357  RS 52</p>
<b>1.2, 1.3</b>	<ul style="list-style-type: none"> <li>develop an understanding of construction technology and all its sub-systems.</li> </ul>	<p><b>SE:</b> 306-319, 320, 321-326, 337-345, 397-399  <i>Career File:</i> 326, 346, 358, 378, 400  <i>Tech Report:</i> 304-305  <i>Science Connection:</i> 313, 336, 371</p> <p><b>TAE:</b> NS 307  AT 307, 324  E 308, 315, 316  CT 310, 317, 319  R 311, 314, 318  RT 314  EN 321  B 323, 330, 334  RS 325</p>

<b>Construction Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>5.2</b>	<ul style="list-style-type: none"> <li>• use and adapt current and emerging construction materials and techniques.</li> </ul>	<p><b>SE:</b> 320, 337-345, 397-399  <i>Design and Problem Solving Activity:</i> 402-403, 404-409, 410-414, 415-417</p> <p><b>TAE:</b> NS 402, 412  CA 402, 404, 410, 412  E 402  R 403</p>
<b>1.2, 6.3</b>	<ul style="list-style-type: none"> <li>• develop an understanding of structural design and the engineering necessary to construct a safe efficient structure.</li> </ul>	<p><b>SE:</b> 337-345, 356-357, 402  <i>Career File:</i> 326, 346, 358, 378, 400  <i>Design and Problem Solving Activity:</i> 402-403, 404-409, 410-414, 415-417</p> <p><b>TAE:</b> CT 356, 345, 356  R 357, 339  B 337, 339  E 338, 343  EN 345  RS 359</p>
<b>5.1</b>	<ul style="list-style-type: none"> <li>• use critical thinking skills to design a structure utilizing appropriate applications of technologies.</li> </ul>	<p><b>SE:</b> 35  <i>Design and Problem Solving Activity:</i> 402-403, 404-409, 410-414, 415-417</p> <p><b>TAE:</b> DT 35  NS 402, 412  CA 402, 404, 410, 412  E 402  R 403</p>

<b>Construction Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.2, 1.3</b>	<ul style="list-style-type: none"> <li>appreciate, understand, and perform selected management practices in planning, organizing, and controlling as they relate to the construction enterprise and its related activities.</li> </ul>	<p><b>SE:</b> 328-329, 330-331, 332-346, 350-356, 358</p> <p><b>TAE:</b> NS 329 E 329, 330, 331 CT 330, 331, 333 B 330, 334 EN 331, 332 R 333</p>
<b>1.2, 6.2</b>	<ul style="list-style-type: none"> <li>appreciate and understand the interrelationships within and between management, personnel, and production practices.</li> </ul>	<p><b>SE:</b> 54, 201, 217, 240, 250-251, 253-257, 281, 350-356 <i>Career File:</i> 358 <i>Mathematics Connection:</i> 354</p> <p><b>TAE:</b> E 54, 257 CT 257, 350, 356 R 217, 250, 251 RT 201, 240, 255 EN 54, 240, 256 B 352 A 201</p>

<b>Construction Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>6.2, 2.17</b>	<ul style="list-style-type: none"> <li>understand the relationship between construction technology, community development and the environment.</li> </ul>	<p><b>SE:</b> 308, 310, 319, 323-324, 330-331, 355  <i>Tech Report:</i> 304  <i>Design and Problem Solving Activity:</i> 402-403, 412-413, 510-513</p> <p><b>TAE:</b> E 308, 319, 323, 330            CT 319, 330            B 323            AT 324            R 330            EN 331</p>
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>develop a culminating project, drawing upon the student's knowledge and experiences in construction technology.</li> </ul>	<p><b>SE:</b> <i>Design and Problem Solving Activity:</i> 402-403, 404-409, 410-414, 415-417</p> <p><b>TAE:</b> NA 402, 412            CA 402, 404, 410, 412, 415            E 402            R 403, 417            EN 415, 416</p>
<b>2.36, 2.38</b>	<ul style="list-style-type: none"> <li>develop personal and professional leadership skills through participation in Kentucky Technology Student Association activities.</li> </ul>	<p><b>SE:</b> 40 (TSA)</p> <p><b>TAE:</b> R 40</p>

<b>Construction Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.17, 5.4</b>	<ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to careers.</li> </ul>	<p><b>SE:</b> 10, 30, 34-39, 81-83  <i>Directed Activity:</i> 62-63  <i>Career File:</i> 244</p> <p><b>TAE:</b> DT 35  E 30, 34, 35, 38, 82  AT 35  EN 30, 37, 81, 82  CT 38, 39  R 63, 83  NS 62</p>
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>apply concepts from mathematics, science, and communications in the context of technology education.</li> </ul>	<p><b>SE:</b> 28, 58, 59, 303, 404-407, 509  <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475  <i>Science Connection:</i> 28, 69</p> <p><b>TAE:</b> CA 404  R 59, 509  E 58</p>

<b>Graphic Communications Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>

<b>Graphic Communications Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.16, 1.11</b>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>• use computer-based technologies to communicate, process, manipulate, collect, and apply information to solve technical problems in graphic communication.</li> </ul>	<p><b>SE:</b> 100-108, 109-114, 115-118, 147-148, 154-155, 166-167  <i>Tech Report:</i> 70-71  <i>Directed Activity:</i> 170-172, 176-178, 179-181</p> <p><b>TAE:</b> E 100, 102            AT 102, 112, 114, 148            EN 104, 146, 147            CT 110, 111, 147            R 100, 101, 102            B 115            RT 102, 107, 146</p>
<b>6.1</b>	<ul style="list-style-type: none"> <li>• apply concepts from mathematics, science, communication, social studies, and the arts in the context of contemporary graphic communication technology.</li> </ul>	<p><b>SE:</b> 28, 58, 59, 146-147, 158-160, 161-164, 164-166, 303, 404-407, 509  <i>Mathematics Connection:</i> 150</p> <p><b>TAE:</b> R 59, 163            E 58, 147, 162            RT 146, 158            CT 147, 162            EN 167</p>

<b>Graphic Communications Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.31</b>	<ul style="list-style-type: none"> <li>develop competencies in the safe and efficient use of the tools, machines, materials, and processes of graphic communication.</li> </ul>	<p><b>SE:</b> 11-13, 36-37, 42, 52, 86, 154-155, 166-167, 256, 357</p> <p><b>TAE:</b> E 36, 86 AT 36 EN 42, 256 R 357 RS 52</p>
<b>2.36, 6.1</b>	<ul style="list-style-type: none"> <li>identify opportunities, characteristics, and preparation requirements for current and emerging occupations in graphic communications.</li> </ul>	<p><b>SE:</b> 81-82 <i>Career File:</i> 168 <i>Directed Activity:</i> 62-63</p> <p><b>TAE:</b> EN 81, 82, 168 E 82 NS 62 R 62, 63</p>
<b>6.3</b>	<ul style="list-style-type: none"> <li>engage in meaningful, hands-on, minds-on, and conceptual technology-based activities.</li> </ul>	<p><b>SE:</b> <i>Directed Activity:</i> 170-172, 176-178, 179-181 <i>Design and Problem Solving Activity:</i> 292-294, 295-296, 297-298, 299-300, 301-303</p> <p><b>TAE:</b> CA 170, 173, 176, 179, 292, 295, 297, 299, 301 E 170, 173, 174, 300 R 293 NS 295, 299 RT 298</p>

<b>Graphic Communications Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>2.30, 1.16</b>	<ul style="list-style-type: none"> <li>become discrimination consumers of graphic communications products and services.</li> </ul>	<b>SE:</b> 144-148 <b>TAE:</b> R 144, 145 E 147
<b>2.36, 2.38</b>	<ul style="list-style-type: none"> <li>develop personal and professional leadership skills through participation in Kentucky Technology Student Association activities.</li> </ul>	<b>SE:</b> 40 (TSA) <b>TAE:</b> R 40
<b>1.13, 2.36</b>	<ul style="list-style-type: none"> <li>communicate visually using new and traditional graphic communication tools, techniques and materials.</li> </ul>	<b>SE:</b> 144-146, 146-148 <b>TAE:</b> R 144 E 144, 145, 147 EN 144 RT 145 CT 146, 147 AT 148

<b>Graphic Communications Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.16, 5.2</b>	<ul style="list-style-type: none"> <li>produce a document using the computer and desktop publishing software as tools.</li> </ul>	<p><b>SE:</b> 100-108, 109-114, 115-118, 149, 154, 155  <i>Design and Problem Solving Activity:</i> 299-300  <i>Tech Report:</i> 70-71  <i>Directed Activity:</i> 170-172, 173-175, 176-178, 178-179  <i>Math Connection:</i> 150</p> <p><b>TAE:</b> E 100, 102, 155, 300  AT 102, 112, 114, 154  EN 104  T 110, 111  R 100, 101, 102, 149  B 115  RT 102, 107  CA 299  NS 299</p>
<b>5.1, 5.2</b>	<ul style="list-style-type: none"> <li>create and process photographic images using both traditional camera/film technology and computer acquisition/enhancement technology.</li> </ul>	<p><b>SE:</b> 155-160</p> <p><b>TAE:</b> E 156  R 156, 157  RT 157, 158, 159</p>
<b>5.3</b>	<ul style="list-style-type: none"> <li>produce a product applying the offset printing process.</li> </ul>	<p><b>SE:</b> 152</p> <p><b>TAE:</b> R 152</p>

<b>Graphic Communications Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.11, 1.13</b>	<ul style="list-style-type: none"> <li>write, develop, edit, and produce an effective video message.</li> </ul>	<b>SE:</b> <i>Design and Problem Solving Activity:</i> 176-178  <b>TAE:</b> CA 176
<b>1.13, 1.15</b>	<ul style="list-style-type: none"> <li>animate a visual image.</li> </ul>	<b>SE:</b> 90, 272-273, 274-275  <b>TAE:</b> R 90 B 90 E 275
<b>1.13</b>	<ul style="list-style-type: none"> <li>convey a message through application of traditional and emerging screen printing processes.</li> </ul>	<b>SE:</b> 149, 151, 152, 153, 154, 155 <i>Math Connection:</i> 150  <b>TAE:</b> R 149, 151 RT 152, 153 AT 154 E 151, 153
<b>2.17, 5.4</b>	<ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to careers.</li> </ul>	<b>SE:</b> 10, 30, 34-39, 81-83 <i>Directed Activity:</i> 62-63 <i>Career File:</i> 244  <b>TAE:</b> DT 35 E 30, 34, 35, 38, 82 AT 35 EN 30, 37, 81, 82 CT 38, 39 R 63, 83 NS 62

<b>Graphic Communications Technology</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>apply concepts from mathematics, science, and communications in the context of technology education.</li> </ul>	<b>SE:</b> 28, 58, 59, 303, 404-407, 509 <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475 <i>Science Connection:</i> 28, 69  <b>TAE:</b> CA 404 R 59, 509 E 58

<b>Special Problems in Technology Education</b>		
<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>1.1, 6.3</b>	<b>Students will:</b> <ul style="list-style-type: none"> <li>develop a culminating project, demonstrating the student's knowledge, and intellectual/technological skills and expertise.</li> </ul>	<b>SE:</b> <i>Design and Problem Solving Activity:</i> 60-61, 68-69, 173-175, 176-178, 292-294, 295-296 <i>Directed Activity:</i> 62-63, 64-67, 170-172, 179-181  <b>TAE:</b> NS 60, 62, 64 CA 60, 64, 68, 170 E 61, 65, 170, 173 R 62, 63 CT 66 RT 66

**Special Problems in Technology Education**

<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<p align="center"><b>1.13, 1.11</b></p>	<ul style="list-style-type: none"> <li>demonstrate communication skills through presentations, reports, and demonstration.</li> </ul>	<p><b>SE:</b> <i>Design and Problem Solving Activity:</i> 60-61, 68-69, 173-175, 176-178, 292-294, 295-296  <i>Directed Activity:</i> 62-63, 64-67, 170-172, 179-181</p> <p><b>TAE:</b> NS 60, 62, 64  CA 60, 64, 68, 170  E 61, 65, 170, 173  R 62, 63  CT 66  RT 66</p>
<p align="center"><b>2.3, 5.1</b></p>	<ul style="list-style-type: none"> <li>apply a systems approach, research skills, 21<sup>st</sup> century skills (e.g., creative problem-solving, critical thinking, teamwork, leadership, acceptance of personal responsibility), and a variety of resources including information, tools and materials to the resolution of a work-based or community based problem.</li> </ul>	<p><b>SE:</b> 46-50, 52-55, 56, 80-89, 193, 195-201, 311-323, 427-429, 431-432, 535</p> <p><b>TAE:</b> E 48, 54, 81, 82  AT 47  EN 54, 82  CT 46, 53, 195  R 46, 48, 52, 80, 83  LA 201  B 311, 323, 431  RT 314, 427  BG 322</p>

**Special Problems in Technology Education**

<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<p align="center"><b>6.2, 2.17</b></p>	<ul style="list-style-type: none"> <li>demonstrate a thorough understanding of technological systems and their interrelationships.</li> </ul>	<p><b>SE:</b> 20, 23-26, 74-95, 107-111, 114-115, 125-133, 137-139, 189-190, 201-203, 230-243, 250-251, 276-288, 420-437, 441-461, 465-477, 481-503, 528, 530-541, 547-552  <i>Design and Problem-Solving Activity:</i> 173-175  <i>Science Connection:</i> 22, 529  <i>Tech Report:</i> 524-525</p> <p><b>TAE:</b> E 138, 505  R 25, 92</p>
<p align="center"><b>1.16, 2.36</b></p>	<ul style="list-style-type: none"> <li>use computer based technologies to communicate, process, manipulate, collect, and apply information to solve technical problems.</li> </ul>	<p><b>SE:</b> 100-108, 109-114, 115-118, 147, 179-181  <i>Tech Report:</i> 70-71  <i>Directed Activity:</i> 170-172, 176-178, 179-181</p> <p><b>TAE:</b> E 100, 102  AT 102, 112, 114  EN 104  CT 110, 111, 147  R 100, 101, 102  B 115  RT 102, 107  CA 170, 176, 179</p>

### Special Problems in Technology Education

ACADEMIC EXPECTATIONS	CONTENT/PROCESS	PAGE REFERENCES
<b>2.1</b>	<ul style="list-style-type: none"> <li>• integrate and apply concepts from mathematics, science, communication, social studies, and the arts in the context of contemporary technology.</li> </ul>	<p><b>SE:</b> 28, 58, 59, 303, 404-407, 509  <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475  <i>Science Connection:</i> 28, 69</p> <p><b>TAE:</b> CA 404  R 59, 509  E 58</p>
<b>2.31</b>	<ul style="list-style-type: none"> <li>• demonstrate competencies in the safe and efficient use of tools, machines, materials, and processes.</li> </ul>	<p><b>SE:</b> 11-13, 36-37, 42, 52, 86, 256, 357</p> <p><b>TAE:</b> E 36, 86  AT 36  EN 42, 256  R 357  RS 52</p>

**Special Problems in Technology Education**

<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<p align="center"><b>6.3, 5.1</b></p>	<ul style="list-style-type: none"> <li>engage in meaningful, hands-on, minds-on, and conceptual technology-based activities.</li> </ul>	<p><b>SE:</b> 421, 426, 427-429, 431-437  <i>Design and Problem Solving Activity:</i> 510-513, 514-518, 519-524  <i>Tech Report:</i> 418-419  <i>Mathematics Connection:</i> 430  <i>Career File:</i> 438</p> <p><b>TAE:</b> NS 510, 514            CA 510, 514, 520            CL 510            E 432, 433, 513, 514, 515, 517            CT 427, 429, 432, 516            B 426, 431            R 427, 428            EN 433            AS 437</p>
<p align="center"><b>6.2</b></p>	<ul style="list-style-type: none"> <li>demonstrate an understanding of entrepreneurship and its place within the free enterprise system as a means to becoming a self-sufficient individual.</li> </ul>	<p><b>SE:</b> 38-39, 180  <i>Directed Activity:</i> 179-181</p> <p><b>TAE:</b> CT 38, 39            E 38            CA 179</p>

**Special Problems in Technology Education**

<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<p align="center"><b>2.19</b></p>	<ul style="list-style-type: none"> <li>demonstrate that they have become participating citizens who can understand, assess, predict, control and adapt to the impacts and consequences of technology on individuals, society and the environment.</li> </ul>	<p><b>SE:</b> 18-19, 29, 55, 92-95, 114, 136, 186-187, 204-205, 323-324, 387, 434-346, 534-535, 538, 540</p> <p><b>TAE:</b> R 18, 92, 114 RS 18 E 19, 55, 92 CT 55, 114, 136 RT 186 AT 186, 204, 324 B 323</p>
<p align="center"><b>2.36, 2.38</b></p>	<ul style="list-style-type: none"> <li>develop personal and professional leadership skills through participation in Kentucky Technology Student Association activities.</li> </ul>	<p><b>SE:</b> 40 (TSA)</p> <p><b>TAE:</b> R 40</p>
<p align="center"><b>2.17, 5.4</b></p>	<ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to careers.</li> </ul>	<p><b>SE:</b> 10, 30, 34-39, 81-83 <i>Directed Activity:</i> 62-63 <i>Career File:</i> 244</p> <p><b>TAE:</b> DT 35 E 30, 34, 35, 38, 82 AT 35 EN 30, 37, 81, 82 CT 38, 39 R 63, 83 NS 62</p>

**Special Problems in Technology Education**

<b>ACADEMIC EXPECTATIONS</b>	<b>CONTENT/PROCESS</b>	<b>PAGE REFERENCES</b>
<b>6.2, 6.3</b>	<ul style="list-style-type: none"> <li>• apply concepts from mathematics, science, and communications in the context of technology education.</li> </ul>	<p><b>SE:</b> 28, 58, 59, 303, 404-407, 509  <i>Mathematics Connection:</i> 28, 41, 61, 63, 194, 242, 252, 273, 354, 394, 430, 453, 475  <i>Science Connection:</i> 28, 69</p> <p><b>TAE:</b> CA 404  R 59, 509  E 58</p>

<b>SCANS</b>	
<b>A Three-Part Foundation</b>	
<b>Basic Skills</b>	<b>PAGE REFERENCES</b>
<p>Reads, writes, performs arithmetic and mathematical operations, listens and speaks</p> <ul style="list-style-type: none"> <li>• <b>A. Reading</b>—locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules</li> </ul>	<p><b>SE:</b> 170-171, 174-175, 212, 215</p> <p><b>TAE:</b> E 144</p>
<ul style="list-style-type: none"> <li>• <b>B. Writing</b>—communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts</li> </ul>	<p><b>SE:</b> 175</p> <p><b>TAE:</b> R 131, 237 E 143</p>
<ul style="list-style-type: none"> <li>• <b>C. Arithmetic/Mathematics</b>—performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques</li> </ul>	<p><b>SE:</b> 67, 172, 175, 194, 242</p> <p><b>TAE:</b> M 237</p>
<ul style="list-style-type: none"> <li>• <b>D. Listening</b>—receives, attends to, interprets, and responds to verbal messages and other cues</li> </ul>	<p><b>SE:</b> 175</p> <p><b>TAE:</b> E 115, 147</p>
<ul style="list-style-type: none"> <li>• <b>E. Speaking</b>—organizes ideas and communicates orally</li> </ul>	<p><b>SE:</b> 175, 215</p> <p><b>TAE:</b> E 212, 215 CT 110, 215</p>

<b>SCANS</b>	
<b>A Three-Part Foundation</b>	
<b>Thinking Skills</b>	<b>PAGE REFERENCES</b>
<p>Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reasons</p> <ul style="list-style-type: none"> <li>• A. <u>Creative Thinking</u>—generates new ideas</li> </ul>	<p><b>SE:</b> 173-175</p> <p><b>TAE:</b> E 170</p>
<ul style="list-style-type: none"> <li>• B. <u>Decision Making</u>—specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative</li> </ul>	<p><b>SE:</b> 34-37, 68-69, 174-175, 176-177</p> <p><b>TAE:</b> E 34, 37</p>
<ul style="list-style-type: none"> <li>• C. <u>Problem Solving</u>—recognizes problems and devises and implements plan of action</li> </ul>	<p><b>SE:</b> 34-38, 68-69, 174-175, 176-177</p> <p><b>TAE:</b> E 170 DT 35 CT 38</p>
<ul style="list-style-type: none"> <li>• D. <u>Seeing Things in the Mind’s Eye</u>—organizes, and processes symbols, pictures, graphs, objects, and other information</li> </ul>	<p><b>SE:</b> 35, 176-177</p> <p><b>TAE:</b> R 145</p>
<ul style="list-style-type: none"> <li>• E. <u>Knowing How to Learn</u>—uses efficient learning techniques to acquire and apply new knowledge and skills</li> </ul>	<p><b>SE:</b> 35</p> <p><b>TAE:</b> AT 148</p>
<ul style="list-style-type: none"> <li>• F. <u>Reasoning</u>—discovers a rule or principle underlying the relationship between two or objects and applies it when solving a problem</li> </ul>	<p><b>SE:</b> 191-192</p> <p><b>TAE:</b> R 192 E 193</p>

<b>SCANS</b>	
<b>A Three-Part Foundation</b>	
<b>Personal Qualities</b>	<b>PAGE REFERENCES</b>
<p>Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty</p> <ul style="list-style-type: none"> <li>• A. <u>Responsibility</u>—exerts a high level of effort and perseveres towards goal attainment</li> </ul>	<p><b>SE:</b> 30, 176-177</p> <p><b>TAE:</b> E 30, 168</p>
<ul style="list-style-type: none"> <li>• B. <u>Self-Esteem</u>—believes in own self-worth and maintains a positive view of self</li> </ul>	<p><b>SE:</b> 30</p> <p><b>TAE:</b> E 30, 168</p>
<ul style="list-style-type: none"> <li>• C. <u>Sociability</u>—demonstrates understanding, friendliness, adaptability, empathy, and politeness in new and on-going group settings</li> </ul>	<p><b>SE:</b> 30</p> <p><b>TAE:</b> E 30</p>
<ul style="list-style-type: none"> <li>• D. <u>Self-Management</u>—assesses self accurately, sets personal goals, monitors progress, and exhibits self-control</li> </ul>	<p><b>SE:</b> 30, 176-177</p> <p><b>TAE:</b> E 30</p>
<ul style="list-style-type: none"> <li>• E. <u>Integrity/Honesty</u>—chooses ethical courses of action</li> </ul>	<p><b>SE:</b> 20, 30</p> <p><b>TAE:</b> E 30</p>

<b>SCANS</b>	
<b>Five Workplace Competencies</b>	
<b>Resources</b>	<b>PAGE REFERENCES</b>
Identifies, organizes, plans, and allocates resources  <ul style="list-style-type: none"> <li>• <i>A. Time</i>—Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules</li> </ul>	<b>SE:</b> 54, 201  <b>TAE:</b> E 54
<ul style="list-style-type: none"> <li>• <i>B. Money</i>—Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives</li> </ul>	<b>SE:</b> 54, 200  <b>TAE:</b> E 54
<ul style="list-style-type: none"> <li>• <i>C. Material and Facilities</i>—Acquires, stores, allocates, and uses materials or space efficiently</li> </ul>	<b>SE:</b> 201, 235-238  <b>TAE:</b> R 237 CT 235 E 48
<ul style="list-style-type: none"> <li>• <i>D. Human Resources</i>—Assesses skills and distributes work accordingly, evaluates performance and provides feedback</li> </ul>	<b>SE:</b> 201, 240  <b>TAE:</b> R 240

<b>SCANS</b>	
<b>Five Workplace Competencies</b>	
<b>Interpersonal</b>	<b>PAGE REFERENCES</b>
<ul style="list-style-type: none"> <li>• <i>A. Participates as Member of a Team</i>—contributes to group effort</li> </ul>	<p><b>SE:</b> 30, 176-177, 195</p> <p><b>TAE:</b> E 30</p>
<ul style="list-style-type: none"> <li>• <i>B. Teaches Others New Skills</i></li> </ul>	<p><b>SE:</b> 244</p> <p><b>TAE:</b> E 244</p>
<ul style="list-style-type: none"> <li>• <i>C. Serves Clients/Customers</i>—works to satisfy customers’ expectations</li> </ul>	<p><b>SE:</b> 201</p> <p><b>TAE:</b> E 174 R 253 D 253</p>
<ul style="list-style-type: none"> <li>• <i>D. Exercises Leadership</i>—communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies</li> </ul>	<p><b>SE:</b> 30, 195</p> <p><b>TAE:</b> CT 195 E 30 R 217</p>
<ul style="list-style-type: none"> <li>• <i>E. Negotiates</i>—works toward agreements involving exchange of resources, resolves divergent interests</li> </ul>	<p><b>SE:</b> 30, 217</p> <p><b>TAE:</b> E 30 R 217</p>
<ul style="list-style-type: none"> <li>• <i>F. Works with Diversity</i>—works well with men and women from diverse backgrounds</li> </ul>	<p><b>SE:</b> 30, 195</p> <p><b>TAE:</b> E 30</p>

<b>SCANS</b>	
<b>Five Workplace Competencies</b>	
<b>Information</b>	<b>PAGE REFERENCES</b>
Acquires and uses information <ul style="list-style-type: none"> <li>• <i>A. Acquires and Evaluates Information</i></li> </ul>	<b>SE:</b> 37, 170-171, 200 <b>TAE:</b> E 36
<ul style="list-style-type: none"> <li>• <i>B. Organizes and Maintains Information</i></li> </ul>	<b>SE:</b> 170-171 <b>TAE:</b> E 34, 111, 170
<ul style="list-style-type: none"> <li>• <i>C. Interprets and Communicates Information</i></li> </ul>	<b>SE:</b> 34, 55 <b>TAE:</b> E 34 DT 35 CT 55
<ul style="list-style-type: none"> <li>• <i>D. Uses Computers to Process Information</i></li> </ul>	<b>SE:</b> 170-171, 176-177 <b>TAE:</b> E 170 CT 55

<b>SCANS</b>	
<b>Five Workplace Competencies</b>	
<b>Systems</b>	<b>PAGE REFERENCES</b>
<p>Understands complex inter-relationships</p> <ul style="list-style-type: none"> <li>• <i>A. Understands Systems</i>—knows how social, organizational, and technological systems work and operates effectively with them</li> </ul>	<p><b>SE:</b>190-193, 195-205</p> <p><b>TAE:</b> E 95, 132, 186</p>
<ul style="list-style-type: none"> <li>• <i>B. Monitors and Corrects Performance</i>—distinguishes trends, predicts impacts on systems operations, diagnoses deviations in systems’ performance and corrects malfunctions</li> </ul>	<p><b>SE:</b> 57, 136-137</p> <p><b>TAE:</b> CT 57, 136 E 37</p>
<ul style="list-style-type: none"> <li>• <i>C. Improves or Designs Systems</i>—suggests modifications to existing systems and develops new or alternative systems to improve performance</li> </ul>	<p><b>SE:</b> 37, 173-175</p> <p><b>TAE:</b> E 37, 160 DT 122 B 224</p>

<b>SCANS</b>	
<b>Five Workplace Competencies</b>	
<b>Technology</b>	<b>PAGE REFERENCES</b>
<p>Works with a variety of technologies</p> <ul style="list-style-type: none"> <li>• <i>A. Selects Technology</i>—chooses procedures, tools or equipment including computers and related technologies</li> </ul>	<p><b>SE:</b> 149, 154-158</p> <p><b>TAE:</b> E 48, 162 R 149 AT 126</p>
<ul style="list-style-type: none"> <li>• <i>B. Applies Technology</i>—Understands overall intent and proper procedures for setup and operation of equipment</li> </ul>	<p><b>SE:</b> 198-199</p> <p><b>TAE:</b> E 133, 162, 198 AT 154 R 132</p>
<ul style="list-style-type: none"> <li>• <i>C. Maintains and Troubleshoots Equipment</i>—Prevents, identifies, or solves problems with equipment, including computers and other technologies</li> </ul>	<p><b>SE:</b> 198</p> <p><b>TAE:</b> E 198 AT 154</p>

## National Standards of Technological Literacy

### The Nature of Technology

STANDARDS	PAGE REFERENCES
Standard 1: Students will develop an understanding of the characteristics and scope of technology.	<b>SE:</b> 21, 23-27, 39 <b>TAE:</b> CT 57
Standard 2: Students will develop an understanding of the core concepts of technology.	<b>SE:</b> 18-20, 45, 46-54 <b>TAE:</b> CT 46 R 46
Standard 3: Students will develop an understanding of the relationships among technologies and the connections between technology and other fields of study.	<b>SE:</b> 23, 27, 28, 29 <b>TAE:</b> R 27

<b>National Standards of Technological Literacy</b>	
<b>Technology and Society</b>	
<b>STANDARDS</b>	<b>PAGE REFERENCES</b>
Standard 4: Students will develop an understanding of the cultural, social, economic, and political effects of technology.	<b>SE:</b> 19, 29, 70-71, 92-93, 186-187, 190-193, 195-205, 323, 540 <b>TAE:</b> E 54, 95, 132, 186
Standard 5: Students will develop an understanding of the role of society in the development and use of technology.	<b>SE:</b> 19, 29, 70-71, 92-93, 186-187, 204, 323, 540 <b>TAE:</b> E 54, 95, 132, 186
Standard 6: Students will develop an understanding of the role of society in the development and use of technology.	<b>SE:</b> 19, 29, 70-71, 92-93, 186-187, 204, 323, 540 <b>TAE:</b> E 54, 95, 132, 186
Standard 7: Students will develop an understanding of the influence of technology on history.	<b>SE:</b> 18-19 <b>TAE:</b> E 19

<b>National Standards of Technological Literacy</b>	
<b>Design</b>	
<b>STANDARDS</b>	<b>PAGE REFERENCES</b>
Standard 8: Students will develop an understanding of the attributes of design.	<b>SE:</b> 145, 146, 159 <b>TAE:</b> E 147 CT 147
Standard 9: Students will develop an understanding of engineering design.	<b>SE:</b> 337-344 <b>TAE:</b> R 339 E 338
Standard 10: Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.	<b>SE:</b> 34-38, 68-69, 174-175, 176-177 <b>TAE:</b> E 170 DT 35 CT 38

<b>National Standards of Technological Literacy</b>	
<b>Abilities for a Technological World</b>	
<b>STANDARDS</b>	<b>PAGE REFERENCES</b>
Standard 11: Students will develop abilities to apply the design process.	<b>SE:</b> 60-61, 173-178, 292-300, 402-403, 410-417, 510-513  <b>TAE:</b> CA 60
Standard 12: Students will develop abilities to use and maintain technological products and systems.	<b>SE:</b> 198  <b>TAE:</b> E 198, 518 AT 154
Standard 13: Students will develop abilities to assess the impact of products and systems.	<b>SE:</b> 136-137  <b>TAE:</b> CT 57, 136 E 37

<b>National Standards of Technological Literacy</b>	
<b>The Designed World</b>	
<b>STANDARDS</b>	<b>PAGE REFERENCES</b>
Standard 14: Students will develop an understanding of and be able to select and use medical technologies.	<b>SE:</b> 94-95, 554-555, 556, 557 <b>TAE:</b> E 553
Standard 15: Students will develop an understanding of and be able to select and use agricultural and related biotechnologies.	<b>SE:</b> 25, 524-525, 537, 547-552 <b>TAE:</b> E 527
Standard 16: Students will develop an understanding of and be able to select and use energy and power technologies.	<b>SE:</b> 26, 431, 499-503 <b>TAE:</b> E 499
Standard 17: Students will develop an understanding of and be able to select and use information and communication technologies.	<b>SE:</b> 21-22, 74-95 <b>TAE:</b> E 22, 95 R 95
Standard 18: Students will develop an understanding of and be able to select and use transportation technologies.	<b>SE:</b> 24-25 <b>TAE:</b> R 25
Standard 19: Students will develop an understanding of and be able to select and use manufacturing technologies.	<b>SE:</b> 23 <b>TAE:</b> N/A

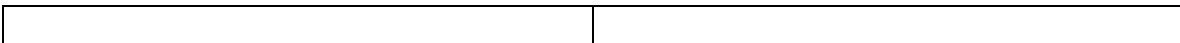
<b>National Standards of Technological Literacy</b>	
<b>The Designed World</b>	
<b>STANDARDS</b>	<b>PAGE REFERENCES</b>
Standard 20: Students will develop an understanding of and be able to select and use construction technologies.	<b>SE:</b> 23-24 <b>TAE:</b> CT 23

## TAE Codes

AT	Assessing Technology
CT	Critical Thinking
DT	Designing Technology
E	Extension
R	Reinforcement
EN	Enrichment
LA	Language Arts
B	Brainstorming
RT	Reteaching
BG	Background
RS	Resource
NS	National Standards
CA	Characterizing the Activity

# **Technology Education Evaluation Tool**

Instruction and Assessment	Comments
Identifies a Sense of Purpose	Each chapter in the Student Edition begins with elements designed to quickly launch a student's focus and interest on the chapter's topic. Each <i>Chapter Opener</i> in the Student Edition begins with a <i>Technology Timeline</i> which lists significant developments in the history of technology. Each chapter begins with a list of the skills and knowledge students can expect to have mastered once they have completed the chapter. Photographs expand and reinforce the business and economic concepts presented in each chapter.
Builds on Student Ideals	Teaching strategies for <i>Technology Today and Tomorrow</i> are presented at the beginning of each chapter in the <i>Lesson Plan</i> section of the Teacher Resource Guide. A section entitled <i>Understanding Concepts</i> is located in the <i>Chapter Review</i> section of each chapter which builds on student's previous knowledge of technological material.
Engages Students	Each chapter in the Student Edition begins with elements designed to quickly launch a student's focus and interest on the chapter's topic. Each <i>Chapter Opener</i> in the Student Edition provides a brief introduction to the new material that will be covered in the chapter. Each chapter begins with a list of the skills and knowledge students can expect to have mastered once they have completed the chapter. Photographs expand and reinforce the business and economic concepts presented in each chapter.



Instruction and Assessment (continued)	Comments
Develops Business Ideas	In <i>Glencoe Technology Today and Tomorrow</i> , new learning is based on previous knowledge, with each new concept building on a prior experience. The instruction in the Student Edition follows an organized flow of concept development
Promotes Student Thinking	Both the Student Edition and the Instructor Guide provide numerous activities and suggestions to help you incorporate and integrate critical thinking skills you're teaching in your course. The <i>Understanding Concepts and Thinking Critically</i> feature in the Student Edition contains information and questions that enable students to practice a variety of critical thinking skills such as problem solving, analyzing, evaluating, decision making, and synthesizing information. At the end of each chapter an <i>Applying Concepts and Solving Problems</i> activity is provided which helps develop student's reasoning skills.

<b>Instruction and Assessment (continued)</b>	<b>Comments</b>
<p>Assesses Student Progress</p>	<p>A large section of testing and assessment resources is available for <i>Glencoe Technology Today and Tomorrow</i> to help you measure the progress of your students. The <i>Understanding Concepts and Thinking Critically</i> feature in the Student Edition contains information and questions that enable students to practice a variety of critical thinking skills such as problem solving, analyzing, evaluating, decision making, and synthesizing information. At the end of each chapter an <i>Applying Concepts and Solving Problems</i> activity is provided which helps develop student's reasoning skills. Objective tests are provided for each of the 24 chapters of the student test.</p>

<p style="text-align: center;"><b>Instruction and Assessment (continued)</b></p>	<p style="text-align: center;"><b>Comments</b></p>
<p>Enhances The Learning Environment</p>	<p><i>Glencoe Technology Today and Tomorrow</i> offers engaging, relevant, and appropriate content for the widest range of learners – from young scholars and athletes to visual learners and low achievers. The research-based content is presented in a visually dynamic style that will engage and motivate your students. The program has been designed to offer a variety of lesson plan options and embedded assessment that develop the knowledge, business skills, behaviors, and problem-solving skills of all your students – regardless of their learning styles and ability levels.</p>
<p>Reading level is appropriate for interest and ability level of intended student group: level remains consistent throughout.</p>	<p><i>Glencoe Technology Today and Tomorrow</i> offers engaging, relevant, and appropriate content for the widest range of learners – from young scholars and athletes to visual learners and low achievers. The research-based content is presented in a visually dynamic style that will engage and motivate your students. The program has been designed to offer a variety of lesson plan options and embedded assessment that develop the knowledge, business skills, behaviors, and problem-solving skills of all your students – regardless of their learning styles and ability levels.</p>

<p style="text-align: center;"><b>Instruction and Assessment (continued)</b></p>	<p style="text-align: center;"><b>Comments</b></p>
<p>Common wealth Accountability Testing System (CATS) “like” Assessment is provided</p>	<p>Expanded tests which include matching and multiple choice questions are provided on the test generator on the <i>Teacher Productivity CD-ROM</i>. It contains questions which are organized around learning objectives and categorized by chapter and unit.</p>
<p>Variety of Assessments (diagnostic, formative, summative, open response, multiple choice, individual, small group, oral, demonstrations, presentations, self and peer performance, portfolio prompts) is included.</p>	<p>A large section of testing and assessment resources is available for <i>Glencoe Technology Today and Tomorrow</i> to help you measure the progress of your students. The <i>Understanding Concepts and Thinking Critically</i> feature in the Student Edition contains information and questions that enable students to practice a variety of critical thinking skills such as problem solving, analyzing, evaluating, decision making, and synthesizing information. At the end of each chapter an <i>Applying Concepts and Solving Problems</i> activity is provided which helps develop student’s reasoning skills. Objective tests are provided for each of the 24 chapters of the student test.</p>

<b>Instruction and Assessment (continued)</b>	<b>Comments</b>
<p>Includes activities and opportunities for integration of technology.</p>	<p>The <i>Technology Today and Tomorrow Teacher Productivity CD-ROM</i> includes Power Point Slides to help students reinforce learning. Teacher and student resources are available at the <i>Glencoe's Teaching Today Website</i> which features daily teaching tips, free downloadable materials, annotated Web resources, educational news, and more. The site contains a wealth of information on topics from high stakes testing to classroom management.</p>

<b>Instruction and Assessment</b>	<b>Comments</b>
<p>Reflects researched-based practices (e.g. hands-on activities, technology, problem-solving situations)</p>	<p><i>Glencoe Technology Today and Tomorrow</i> has achieved the highest degree of accuracy through rigorous scientifically-based research. This edition is the product of the most recent research studies, teacher feedback, and detailed editorial development. The result is an up-to-date, solid foundation for an engaging, stimulating, and high-quality technology education course for your students. Hands-on activities, technology, and problem-solving situations are integrated throughout <i>Glencoe Technology Today and Tomorrow</i>.</p>
<p>Differentiation techniques and activities suggested.</p>	<p><i>Glencoe Technology Today and Tomorrow</i> offers engaging, relevant, and appropriate content for the widest range of learners – from young scholars and athletes to visual learners and low achievers. The research-based content is presented in a visually dynamic style that will engage and motivate your students. The program has been designed to offer a variety of lesson plan options and embedded assessment that develop the knowledge, business skills, behaviors, and problem-solving skills of all your students – regardless of their learning styles and ability levels.</p>

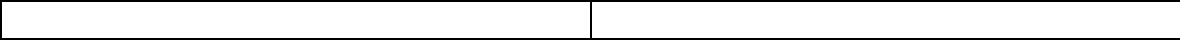
Content–Technology Education	Comments
Nature of Technology	Each section of the Student Edition begins with a <i>Technology Timeline</i> and <i>Fascinating Facts</i> which outlines the objectives of the chapter and explains the characteristics and scope of technological literacy on history and the relationships between technology and other fields.
Technology and Society	In <i>Glencoe Technology Today and Tomorrow</i> , students are provided with a detailed explanation of technology’s impact on society and history. A <i>Tech Report</i> section is found at the end of each chapter of each section of the Student Edition. Special <i>Connection</i> sections are found throughout the Student Edition to show students how society impacts their community in different ways.
Design	The design process is outlined in detail in Chapter 7 of the Student Edition. Students are presented with design concepts and are expected to use the design process to solve real problems and implement solutions in the <i>Applying Concepts and Solving Problems</i> section found in the Student Edition of <i>Glencoe Technology Today and Tomorrow</i> .
Abilities for a Technological World	In <i>Technology Today and Tomorrow</i> , students explore the future of technology and discuss how new developments in technology will be reflected in new products. Students are challenged to identify a design problem and use computers to communicate.

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<b>Content-Technology Education (continued)</b>	<b>Comments</b>
The Design World	In <i>Glencoe Technology Today and Tomorrow</i> , students explore medical technologies, agricultural and related biotechnologies, energy and power technologies, and information and communication technologies.

<b>Organization and Structure</b>	<b>Comments</b>
Organization is logical and allows for spiraling of content.	<i>Glencoe Technology Today and Tomorrow</i> is composed of 24 chapters. Each chapter follows a straightforward format, beginning with <i>Learning Objectives</i> . <i>Careers In</i> and <i>Connection</i> sections help students connect what they learn to the real world of technology. Each chapter closes with a <i>Chapter Review</i> which provides a review of important terms and technological concepts, as well as a variety of activities.
Vocabulary and key terms are clearly defined and easily accessible within each lesson.	Each chapter begins with a list of the <i>Terms</i> presented in the chapter. These key terms are printed in bold-face type the first time they are introduced and defined within the text.
Visual illustrations (e.g. graphs, charts, models) and examples are clearly presented and content-related	Graphs, charts, and models are used throughout the book to illustrate concepts. Examples are related to the content of the chapter.

<p style="text-align: center;"><b>Organization and Structure (continued)</b></p>	<p style="text-align: center;"><b>Comments</b></p>
<p>Illustrations and language reflect diversity (e.g. racial, ethnic, cultural, age, gender, disabilities).</p>	<p>A variety of situations that reflect diversity are presented throughout the text.</p>
<p>Legible type, length of lines, spacing, and page layout and widths of margins contribute to overall appearance and use.</p>	<p><i>Glencoe Technology Today and Tomorrow</i> has achieved the highest degree of accuracy through rigorous scientifically-based research. This edition is the product of the most recent research studies, teacher feedback, and detailed editorial development. The result is an up-to-date, solid foundation for an engaging, stimulating, and high-quality technology education course for your students. Hands-on activities, technology, and problem-solving situations are integrated throughout <i>Glencoe Technology Today and Tomorrow</i>.</p>
<p>Student materials seem durable and conducive to daily use.</p>	<p>The very best materials are used in all Glencoe products. The materials are easy for students to use, both in school and at home.</p>
<p>Includes sufficient glossary, index and appendices.</p>	<p>The <i>Index</i> can be found on pages 593-624. The <i>Glossary</i> can be found on pages 575-588.</p>
<p>Employs accurate grammar and spelling.</p>	<p><i>Glencoe Technology Today and Tomorrow</i> has achieved the highest degree of accuracy through rigorous scientifically-based research. This edition is the product of the most recent research studies, teacher feedback, and detailed editorial development.</p>



<b>Organization and Structure (continued)</b>	<b>Comments</b>
<p>Organization of material can be effectively used with Standards Based Units, Core Content and Program of Studies.</p>	<p>The correlation between <i>Glencoe Technology Today and Tomorrow</i> and the International Technology Education Association is strong.</p>

<b>Resource Materials</b>	<b>Comments</b>
<p>Teacher materials coordinate easily with student materials (e.g. additional resources included at point of need, student pages shown, integration of technology indicated).</p>	<p>Each chapter in the Instructor Resource Guide begins with a detailed lesson plan which includes a focus for the lesson and teaching suggestions for the chapter content. <i>Lesson Plan Organizers</i> are provided to assist the teacher in designing lesson plans in the Teacher's Annotated Edition on pages TM-25 through TM-48.</p>

Resource Materials (continued)	Comments
<p>Activities are included that adapt to the various learning styles, intelligences, and interest / ability levels.</p>	<p><i>Glencoe Technology Today and Tomorrow</i> offers engaging, relevant, and appropriate content for the widest range of learners – from young scholars and athletes to visual learners and low achievers. The research-based content is presented in a visually dynamic style that will engage and motivate your students. The program has been designed to offer a variety of lesson plan options and embedded assessment that develop the knowledge, business and economic skills, behaviors, and problem-solving skills of all your students – regardless of their learning styles and ability levels.</p>
<p>Extension activities including adaptations and accommodations for students with special needs.</p>	<p>In order to help you provide all your students with a positive learning experience, <i>Glencoe Technology Today and Tomorrow</i> provides a variety of activities. This diversity will stimulate student interest, motivate learning, and facilitate understanding. <i>Meeting Special Needs</i> is included in the Instructor Resource Guide on pages 39-40 to help teachers meet all needs of the students in their classrooms. <i>Tips for Instruction</i> are included in this section.</p>

Resource Materials (continued)	Comments
Resources provide objectives, background information, common student errors, hints, advice for lesson implementation and real-world connections, connections with career and / technology and references (e.g. solution manuals, study guides).	Each chapter follows a straightforward format, beginning with a list of objectives and background information in <i>Fascinating Facts</i> to help students connect what they learn to the real world of technology. Real-world connections and connections with careers can be found throughout the Student Edition and Instructor Resource Guide. A multitude of references are available.
Suggestions are made for integration of themes and / or interdisciplinary instruction.	The <i>Science and Math Connections</i> sections found throughout the Student Edition help students apply their technological concepts to different academic areas such as mathematics, communication and science.
Integration opportunities suggested and examples given.	The <i>Science and Math Connections</i> sections found throughout the Student Edition help students apply their technological concepts to different academic areas such as mathematics, communication and science.
Teacher resources are available online.	Teacher resources are available in the Instructor Resource Guide located on pages TM-23 through TM-24.



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