

Standards Correlations

Technology Education--Preparation (8469)

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
Demonstrating Personal Qualities and Abilities			
Demonstrate creativity and innovation.	English: 6.1, 6.3, 6.4, 6.6, 6.7, 6.9, 7.1, 7.3, 7.4, 7.6, 7.7, 7.9, 8.1, 8.3, 8.4, 8.6, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WG.4, WHI.1, WHII.1 Mathematics: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.10, 6.11, 6.12, 7.2, 7.3, 7.8, 7.9, 8.2, 8.4, 8.6, 8.7, 8.11, 8.12, 8.17, 8.18, A.9, AFDA.3, AFDA.4, AFDA.5, AFDA.6, AFDA.7, AFDA.8, AII.9, COM.1, COM.3, COM.4, COM.5, COM.8, DM.7, DM.1*, DM.10, DM.2*, DM.3*, PS.3*, PS.4*, PS.7*, PS.9*, PS.10* Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PS.1		
Demonstrate critical thinking and problem solving.	English: 6.1, 6.3, 6.4, 6.5, 6.6, 6.7, 6.9, 7.1, 7.3, 7.4, 7.5, 7.6, 7.7, 7.9, 8.1, 8.3, 8.4, 8.5, 8.6, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8		

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
	History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WG.4, WHI.1, WHII.1 Mathematics: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.10, 6.11, 7.2, 7.3, 7.8, 7.12, 7.13, 8.2, 8.4, 8.8, 8.9, 8.10, 8.11, A.8, A.9, G.1, G.13, G.14, AFDA.3, AFDA.5, AFDA.8, AII.9, AII.10, AII.11, COM.1, COM.3, COM.4, COM.5, COM.8, DM.4, DM.7, DM.1*, DM.2*, DM.3*, DM.9*, PS.9*, PS.10* Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PS.1		
Demonstrate initiative and self-direction.	English: 6.1, 6.4, 6.6, 6.7, 6.9, 7.1, 7.4, 7.6, 7.7, 7.9, 8.1, 8.4, 8.6, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1		
Demonstrate integrity.	English: 6.1, 7.1, 8.1, 9.1, 9.5, 10.1, 10.5, 11.1, 11.5, 12.1, 12.5 History and Social Science: CE.1, CE.3, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1		
Demonstrate work ethic.	English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Science: CH.1		
Demonstrating Interpersonal Skills			

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
Demonstrate conflict-resolution skills.	English: 6.1, 6.2, 6.4, 6.6, 6.7, 6.9, 7.1, 7.2, 7.4, 7.6, 7.7, 7.9, 8.1, 8.2, 8.4, 8.6, 8.7, 8.9, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, VUS.1		
Demonstrate listening and speaking skills.	English: 6.1, 6.2, 6.4, 6.6, 7.1, 7.2, 7.4, 7.6, 8.1, 8.2, 8.4, 8.6, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1		
Demonstrate respect for diversity.	English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.3, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, USII.9, VUS.1, VUS.13, WG.1, WHI.1, WHII.1		
Demonstrate customer service skills.	English: 6.1, 6.4, 6.7, 7.1, 7.4, 7.7, 8.1, 8.4, 8.7, 9.1, 9.5, 9.6, 10.1, 10.5, 10.6, 11.1, 11.5, 11.6, 12.1, 12.5, 12.6 History and Social Science: CE.1, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1		
Collaborate with team members	English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.3, CE.4, GOVT.1, GOVT.16, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1		
Demonstrating Professional Competencies			
Demonstrate big-picture thinking.	English: 6.1, 6.4, 7.1, 7.4, 8.1, 8.4, 9.1, 9.5, 10.1, 10.5, 11.1, 11.5, 12.1, 12.5		

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	History and Social Science: CE.1, CE.4, CE.12, GOVT.1, GOVT.15, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1		
Demonstrate career- and life-management skills.	English: 6.1, 6.7, 7.1, 7.7, 8.1, 8.7, 9.1, 9.6, 10.1, 10.6, 11.1, 11.6, 12.1, 12.6 History and Social Science: CE.1, CE.4, CE.12, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 8.4		
Demonstrate continuous learning and adaptability.	English: 6.1, 6.4, 6.7, 6.9, 7.1, 7.4, 7.7, 7.9, 8.1, 8.4, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.1, 11.5, 11.6, 11.8, 12.1, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.3, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Science: BIO.1, CH.1, LS.1, PH.1, PH.4, PS.1		
Manage time and resources.	English: 6.1, 6.2, 6.4, 6.7, 6.9, 7.1, 7.2, 7.4, 7.7, 7.9, 8.1, 8.2, 8.4, 8.7, 8.9, 9.1, 9.5, 9.6, 9.8, 10.1, 10.5, 10.6, 10.8, 11.2, 11.5, 11.6, 11.8, 12.2, 12.5, 12.6, 12.8 History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 6.10, 6.11, 6.12, 7.2, 7.3, 7.8, 7.9, 7.10, 7.11, 7.12, 7.13, 8.4, 8.11, 8.12, 8.13, 8.14, 8.17, 8.18, A.4, A.5, A.8, A.9, AFDA.3, AFDA.4, AFDA.5, AFDA.6,		

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	AFDA.7, AFDA.8, COM.1, COM.3, COM.5, COM.8		
Demonstrate information-literacy skills.	<p>English: 6.1, 6.2, 6.4, 6.6, 6.7, 6.9, 7.1, 7.2, 7.3, 7.4, 7.6, 7.7, 7.9, 8.1, 8.2, 8.3, 8.4, 8.6, 8.7, 8.9, 9.2, 9.5, 9.6, 9.8, 10.2, 10.5, 10.6, 10.8, 11.2, 11.5, 11.6, 11.8, 12.2, 12.5, 12.6, 12.8</p> <p>History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1</p> <p>Mathematics: 6.10, 6.11, 7.8, 7.9, 8.11, 8.12, A.8, A.9, AFDA.3, AFDA.4, AFDA.6, AFDA.7, AFDA.8, DM.8, PS.1*, PS.2*, PS.3*, PS.4*, PS.7*, PS.8*, PS.9*, PS.10*</p> <p>Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PH.1, PS.1</p>		
Demonstrate an understanding of information security.	<p>English: 6.1, 6.2, 6.3, 6.4, 6.6, 6.7, 6.8, 6.9, 7.1, 7.2, 7.3, 7.4, 7.6, 7.7, 7.8, 7.9, 8.1, 8.2, 8.3, 8.4, 8.6, 8.7, 8.8, 8.9, 9.1, 9.2, 9.5, 9.6, 9.8, 10.1, 10.2, 10.5, 10.6, 10.8, 11.1, 11.2, 11.5, 11.6, 11.8, 12.1, 12.2, 12.5, 12.6, 12.8</p> <p>History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1</p> <p>Mathematics: COM.10</p>		
Maintain working knowledge of current information-technology (IT) systems.	English: 6.1, 6.3, 6.4, 6.6, 6.9, 7.1, 7.3, 7.4, 7.6, 7.9, 8.1, 8.3, 8.4, 8.6, 8.9		

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	History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 7.8, COM.1, COM.2, COM.7, COM.9, COM.10, COM.11, COM.16, COM.18, PS.17 Science: BIO.1, CH.1, ES.1, PH.1		
Demonstrate proficiency with technologies, tools, and machines common to a specific occupation.	History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 6.10, 6.11, 7.9, 8.4, A.7, A.8, A.9, AFDA.1, AFDA.3, AFDA.5, AII.4, AII.7, AII.9, COM.1, COM.7, COM.10, COM.11, COM.12, COM.16 Science: CH.1, ES.1, LS.1, PH.1, PS.1		
Apply mathematical skills to job-specific tasks.	English: 6.4, 6.6, 6.7, 7.4, 7.6, 7.7, 8.4, 8.6, 8.7, 9.5, 9.6, 10.5, 10.6, 11.5, 11.6, 12.5, 12.6 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Mathematics: 6.1, 6.2, 6.5, 6.6, 6.12, 6.13, 6.14, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.8, 7.9, 7.11, 7.12, 7.13, 8.4, 8.5, 8.6, 8.8, 8.9, 8.10, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.17, 8.18, A.1, A.3, A.4, A.5, A.7, A.8, A.9, AFDA.1, AFDA.3, AFDA.5, AFDA.8, AII.3, AII.7, AII.9, AII.10, COM.1, COM.7 Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PH.1, PS.1		

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Demonstrate professionalism.	English: 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1		
Demonstrate reading and writing skills.	English: 6.1, 6.6, 6.7, 7.1, 7.6, 7.7, 8.1, 8.6, 8.7, 9.1, 9.5, 9.6, 9.7, 10.1, 10.5, 10.6, 10.7, 11.1, 11.5, 11.6, 11.7, 12.1, 12.5, 12.6, 12.7 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Science: 6.1, PH.1, PS.1		
Demonstrate workplace safety.	English: 6.4, 7.4, 8.4, 9.5, 10.5, 11.5, 12.5 History and Social Science: CE.1, CE.4, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 Science: CH.1		
Examining All Aspects of an Industry			
Examine aspects of planning within an industry/organization.	History and Social Science: GOVT.16		
Examine aspects of management within an industry/organization.			
Examine aspects of financial responsibility within an industry/organization.			

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Examine technical and production skills required of workers within an industry/organization.			
Examine principles of technology that underlie an industry/organization.			
Examine labor issues related to an industry/organization.	History and Social Science: GOVT.16		
Examine community issues related to an industry/organization.	History and Social Science: GOVT.16		
Examine health, safety, and environmental issues related to an industry/organization.	History and Social Science: GOVT.16		
Addressing Elements of Student Life			
Identify the purposes and goals of the student organization.			
Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.			

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Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.			
Identify Internet safety issues and procedures for complying with acceptable use standards.			
Exploring Work-Based Learning			
Identify the types of work-based learning (WBL) opportunities.			
Reflect on lessons learned during the WBL experience.			
Explore career opportunities related to the WBL experience.			
Participate in a WBL experience, when appropriate.			
Understanding Technology and Society			
Define <i>technology</i> .	English: 9.3, 10.3, 11.3, 12.3	1. The Characteristics and Scope of Technology 2. The Core Concepts of Technology	Essays on Technology Extemporaneous Speech Prepared Presentation

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		3. The Relationships Among Technologies and the Connections Between Technology and Other Fields	
Identify the importance of technology in everyday life.	History and Social Science: GOVT.12, VUS.13, VUS.14, WG.17, WHIL.13, WHIL.14 Science: PH.4	1. The Characteristics and Scope of Technology 2. The Core Concepts of Technology 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields 4. The Cultural, Social, Economic, and Political Effects of Technology 5. The Effects of Technology on the Environment	Essays on Technology Extemporaneous Speech Prepared Presentation

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
Describe the importance of technology in the development of society and the environment.	<p>History and Social Science: GOVT.12, VUS.13, VUS.14, WG.16, WG.17, WG.18, WHII.13, WHII.14</p> <p>Science: PH.4</p>	<p>1. The Characteristics and Scope of Technology</p> <p>3. The Relationships Among Technologies and the Connections Between Technology and Other Fields</p> <p>4. The Cultural, Social, Economic, and Political Effects of Technology</p> <p>5. The Effects of Technology on the Environment</p> <p>6. The Role of Society in the Development and Use of Technology</p> <p>7. The Influence of Technology on History</p>	<p>Essays on Technology</p> <p>Extemporaneous Speech</p> <p>Prepared Presentation</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
List examples of emerging technologies.	<p>History and Social Science: GOVT.12, VUS.13, VUS.14, WG.17, WHIL.13, WHIL.14</p> <p>Science: PH.4</p>	<p>1. The Characteristics and Scope of Technology</p> <p>10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving</p> <p>11. Apply the Design Process</p> <p>12. Use and Maintain Technological Products and Systems</p> <p>13. Assess the Impact of Products and Systems</p> <p>14. Medical Technologies</p> <p>15. Agricultural and Related Biotechnologies</p>	<p>Essays on Technology</p> <p>Extemporaneous Speech</p> <p>Prepared Presentation</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		<p>16. Energy and Power Technologies</p> <p>17. Information and Communication Technologies</p> <p>18. Transportation Technologies</p> <p>19. Manufacturing Technologies</p> <p>2. The Core Concepts of Technology</p> <p>20. Construction Technologies</p> <p>3. The Relationships Among Technologies and the Connections Between Technology and Other Fields</p> <p>4. The Cultural, Social, Economic, and Political Effects of Technology</p>	

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		<p>5. The Effects of Technology on the Environment</p> <p>6. The Role of Society in the Development and Use of Technology</p> <p>7. The Influence of Technology on History</p> <p>8. The Attributes of Design</p> <p>9. Engineering Design Essays on Technology</p>	
Predict technological changes.	<p>English: 9.5, 10.5, 11.5, 12.5</p> <p>History and Social Science: VUS.13, VUS.14, WHII.13, WHII.14</p> <p>Mathematics: A.9, AII.9, PS.1*, PS.2*, PS.3*, PS.4*, PS.7*</p>	10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving	<p>Engineering Design Essays on Technology</p> <p>Extemporaneous Speech</p> <p>Prepared Presentation</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		14. Medical Technologies 15. Agricultural and Related Biotechnologies 16. Energy and Power Technologies 17. Information and Communication Technologies 18. Transportation Technologies 19. Manufacturing Technologies 20. Construction Technologies 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields	

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		<p>5. The Effects of Technology on the Environment</p> <p>6. The Role of Society in the Development and Use of Technology</p> <p>7. The Influence of Technology on History</p> <p>9. Engineering Design</p>	
Describe ways society influences the creation of certain technologies.	<p>English: 9.5, 10.5, 11.5, 12.5</p> <p>History and Social Science: GOVT.7, GOVT.8, GOVT.9, GOVT.12, GOVT.15, VUS.2, VUS.6, VUS.8, VUS.9, VUS.10, VUS.11, VUS.13, VUS.14, WHI.2, WHI.3, WHI.4, WHI.5, WHI.6, WHI.8, WHI.9, WHI.10, WHI.11, WHI.12, WHI.13, WHI.14, WHI.9, WHI.10, WHI.13, WHI.14</p> <p>Science: PH.4</p>	<p>1. The Characteristics and Scope of Technology</p> <p>13. Assess the Impact of Products and Systems</p> <p>14. Medical Technologies</p> <p>15. Agricultural and Related Biotechnologies</p>	<p>Essays on Technology</p> <p>Extemporaneous Speech</p> <p>Prepared Presentation</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		16. Energy and Power Technologies 17. Information and Communication Technologies 18. Transportation Technologies 19. Manufacturing Technologies 2. The Core Concepts of Technology 20. Construction Technologies 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields 4. The Cultural, Social, Economic, and Political Effects of Technology	

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		<p>5. The Effects of Technology on the Environment</p> <p>6. The Role of Society in the Development and Use of Technology</p> <p>7. The Influence of Technology on History</p>	
Assess the impact of technology on individuals, resources, society, and the environment.	<p>English: 9.5, 9.8, 10.5, 10.6, 10.7, 10.8, 11.5, 11.6, 11.7, 11.8, 12.5, 12.6, 12.7, 12.8</p> <p>History and Social Science: GOVT.12, VUS.13, VUS.14, WG.2, WG.3, WG.17, WHIL.13, WHIL.14</p> <p>Mathematics: PS.1*, PS.13, PS.2*, PS.3*, PS.4*, PS.7*</p> <p>Science: PH.4</p>	<p>10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving</p> <p>14. Medical Technologies</p> <p>15. Agricultural and Related Biotechnologies</p>	<p>Essays on Technology</p> <p>Extemporaneous Speech</p> <p>Prepared Presentation</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		16. Energy and Power Technologies 17. Information and Communication Technologies 18. Transportation Technologies 19. Manufacturing Technologies 20. Construction Technologies 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields 5. The Effects of Technology on the Environment 6. The Role of Society in the Development and Use of Technology	

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		7. The Influence of Technology on History 9. Engineering Design	
Explore career opportunities to determine occupational and educational choices.	English: 9.5, 9.8, 10.5, 10.8, 11.5, 11.8, 12.5, 12.8	14. Medical Technologies 15. Agricultural and Related Biotechnologies 16. Energy and Power Technologies 17. Information and Communication Technologies 18. Transportation Technologies 19. Manufacturing Technologies 20. Construction Technologies	

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
Present information regarding technological solutions to human problems, using various technologies.	English: 9.1, 10.1, 11.1, 12.1 History and Social Science: GOVT.1, GOVT.9	17. Information and Communication Technologies 2. The Core Concepts of Technology 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields	Biotechnology Design Essays on Technology Prepared Presentation
Understanding the Nature of Technology			
Identify the core concepts of technology.	English: 9.5, 10.5, 11.5, 12.5	2. The Core Concepts of Technology	Essays on Technology Extemporaneous Speech Prepared Presentation
Analyze a basic technological system.	English: 9.5, 10.5, 11.5, 12.5 Mathematics: COM.7, COM.9, COM.10, COM.11, COM.15, COM.16	2. The Core Concepts of Technology	Engineering Design Essays on Technology Extemporaneous Speech Prepared Presentation

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
			System Control Technology
Analyze technological resources.	English: 9.5, 10.5, 11.5, 12.5 History and Social Science: GOVT.12, VUS.13, VUS.14, WG.17, WHIL.13, WHIL.14		Engineering Design Essays on Technology Extemporaneous Speech Prepared Presentation System Control Technology
Compare sources of energy, types of sustainable energies, and energy converters.	English: 9.5, 10.5, 11.5, 12.5 Science: PH.6, PH.7	12. Use and Maintain Technological Products and Systems 16. Energy and Power Technologies 18. Transportation Technologies 19. Manufacturing Technologies 20. Construction Technologies	Biotechnology Design Essays on Technology Extemporaneous Speech Prepared Presentation

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		<p>3. The Relationships Among Technologies and the Connections Between Technology and Other Fields</p> <p>4. The Cultural, Social, Economic, and Political Effects of Technology</p> <p>5. The Effects of Technology on the Environment</p> <p>6. The Role of Society in the Development and Use of Technology</p> <p>7. The Influence of Technology on History</p>	
Describe how tool and machine resources provide various processes.	English: 9.5, 10.5, 11.5, 12.5	12. Use and Maintain Technological Products and Systems	<p>Biotechnology Design</p> <p>Computer Integrated Manufacturing (CIM)</p> <p>Dragster Design</p>

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			Engineering Design Flight Endurance Transportation Modeling
Illustrate the ways processes change input resources into outputs in a manufacturing system.	History and Social Science: GOVT.1	12. Use and Maintain Technological Products and Systems 13. Assess the Impact of Products and Systems 14. Medical Technologies 15. Agricultural and Related Biotechnologies 16. Energy and Power Technologies 17. Information and Communication Technologies	Computer Integrated Manufacturing (CIM) Engineering Design

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		18. Transportation Technologies 19. Manufacturing Technologies 2. The Core Concepts of Technology 20. Construction Technologies 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields 4. The Cultural, Social, Economic, and Political Effects of Technology 5. The Effects of Technology on the Environment 6. The Role of Society in the Development	

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		and Use of Technology 7. The Influence of Technology on History	
Describe ways that people control technology.	English: 9.5, 10.5, 11.5, 12.5 Mathematics: COM.7, COM.9, COM.10, COM.11, COM.15, COM.16	12. Use and Maintain Technological Products and Systems	Computer Integrated Manufacturing (CIM) Engineering Design
Planning a Technological Solution			
Apply safety procedures and practices.	English: 9.5, 10.5, 11.5, 12.5 History and Social Science: GOVT.7, GOVT.8, GOVT.9, GOVT.12, WHII.8 Science: CH.1	11. Apply the Design Process 9. Engineering Design	Computer Integrated Manufacturing (CIM) Dragster Design Engineering Design Flight Endurance Transportation Modeling
Explain the engineering design process.	English: 9.5, 10.5, 11.5, 12.5 History and Social Science: GOVT.1	10. The Role of Troubleshooting, Research and Development,	Biotechnology Design Computer Integrated Manufacturing (CIM)

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
	<p>Mathematics: COM.1, COM.2, COM.3, COM.4, COM.7, COM.8, COM.9, COM.10, COM.11, COM.13, COM.14, COM.15, COM.17, COM.18</p> <p>Science: PH.1</p>	<p>Invention and Innovation, and Experimentation in Problem Solving</p> <p>11. Apply the Design Process</p> <p>12. Use and Maintain Technological Products and Systems</p> <p>13. Assess the Impact of Products and Systems</p> <p>2. The Core Concepts of Technology</p> <p>3. The Relationships Among Technologies and the Connections Between Technology and Other Fields</p> <p>4. The Cultural, Social, Economic, and Political Effects of Technology</p>	<p>Dragster Design</p> <p>Engineering Design</p> <p>Flight Endurance</p> <p>Technology Problem Solving</p> <p>Transportation Modeling</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		5. The Effects of Technology on the Environment 6. The Role of Society in the Development and Use of Technology 7. The Influence of Technology on History 8. The Attributes of Design 9. Engineering Design	
Describe how specifications and constraints affect the design process.	English: 9.5, 10.5, 11.5, 12.5 History and Social Science: GOVT.1	9. Engineering Design	Biotechnology Design Computer Integrated Manufacturing (CIM) Dragster Design Engineering Design Flight Endurance

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
			Transportation Modeling
Describe how trade-offs may be made during the design process in order to optimize a solution.	English: 9.5, 10.5, 11.5, 12.5 History and Social Science: GOVT.1	9. Engineering Design	Biotechnology Design Computer Integrated Manufacturing (CIM) Dragster Design Engineering Design Flight Endurance Transportation Modeling
Demonstrate linear measurement techniques.	Mathematics: G.8 Science: PH.2	12. Use and Maintain Technological Products and Systems	Biotechnology Design Computer Integrated Manufacturing (CIM) Dragster Design Engineering Design Flight Endurance Transportation Modeling

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
Convey three-dimensional objects on a two-dimensional surface, using conventional and/or computer technology.	English: 9.2, 10.2, 11.2, 12.2 Mathematics: G.3, G.13, G.14	8. The Attributes of Design 9. Engineering Design	Computer-Aided Design (CAD), Architecture Computer-Aided Design (CAD), Engineering
Describe the characteristics and/or properties of materials.	English: 9.5, 10.5, 11.5, 12.5 Science: CH.6	11. Apply the Design Process 12. Use and Maintain Technological Products and Systems 13. Assess the Impact of Products and Systems 14. Medical Technologies 15. Agricultural and Related Biotechnologies 16. Energy and Power Technologies 18. Transportation Technologies	Biotechnology Design Engineering Design

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		19. Manufacturing Technologies 20. Construction Technologies 3. The Relationships Among Technologies and the Connections Between Technology and Other Fields	
Propose a solution to an assigned technological problem by applying processes and resources.	English: 9.1, 9.2, 10.1, 10.2, 11.1, 11.2, 12.1, 12.2 History and Social Science: GOVT.1 Science: PH.1	11. Apply the Design Process 9. Engineering Design	Architectural Design Computer Integrated Manufacturing (CIM) Dragster Design Engineering Design Flight Endurance System Control Technology Transportation Modeling

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
			Video Game Design
Formulate a problem statement for the assigned technological problem to be solved.	<p>English: 9.6, 9.7, 10.6, 10.7, 11.6, 11.7, 12.6, 12.7</p> <p>History and Social Science: GOVT.1</p> <p>Science: PH.1</p>	11. Apply the Design Process	<p>Biotechnology Design</p> <p>Computer Integrated Manufacturing (CIM)</p> <p>Engineering Design</p> <p>System Control Technology</p> <p>Technology Problem Solving</p> <p>Video Game Design</p>
Design a product or system to solve the problem statement for the assignment.	<p>English: 9.1, 9.6, 10.1, 10.6, 11.1, 11.6, 12.1, 12.6</p> <p>History and Social Science: GOVT.1</p>	<p>8. The Attributes of Design</p> <p>9. Engineering Design</p>	<p>Architectural Design</p> <p>Computer Integrated Manufacturing (CIM)</p> <p>Dragster Design</p> <p>Engineering Design</p> <p>Flight Endurance</p> <p>System Control Technology</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
			Transportation Modeling Video Game Design
Construct a working prototype of the assigned design problem.	Science: PH.1	10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 19. Manufacturing Technologies 9. Engineering Design	Computer Integrated Manufacturing (CIM) Engineering Design System Control Technology Video Game Design
Evaluate the prototype through testing.	English: 9.5, 10.5, 11.5, 12.5 Mathematics: AFDA.8, PS.8*, PS.10* Science: PH.1	11. Apply the Design Process 12. Use and Maintain Technological Products and Systems 13. Assess the Impact of Products and Systems 9. Engineering Design	Computer Integrated Manufacturing (CIM) Engineering Design System Control Technology Video Game Design

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
Producing a Technological Solution			
Design a technological solution for a problem as part of a team.	<p>English: 9.1, 9.2, 10.1, 10.2, 11.1, 11.2, 12.1, 12.2</p> <p>History and Social Science: GOVT.1</p> <p>Science: PH.1</p>	<p>10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving</p> <p>12. Use and Maintain Technological Products and Systems</p> <p>13. Assess the Impact of Products and Systems</p> <p>15. Agricultural and Related Biotechnologies</p> <p>8. The Attributes of Design</p> <p>9. Engineering Design</p>	<p>Architectural Design</p> <p>Computer Integrated Manufacturing (CIM)</p> <p>Dragster Design</p> <p>Engineering Design</p> <p>Flight Endurance</p> <p>System Control Technology</p> <p>Transportation Modeling</p> <p>Video Game Design</p>

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
Select technologies and resources to solve a problem as a team.	English: 9.2, 9.5, 10.2, 10.5, 11.2, 11.5, 12.2, 12.5 Science: PH.1	11. Apply the Design Process 9. Engineering Design	Architectural Design Computer Integrated Manufacturing (CIM) Dragster Design Engineering Design Flight Endurance System Control Technology Transportation Modeling Video Game Design
Refine the solution, using problem-solving and teamwork skills.	English: 9.5, 10.5, 11.5, 12.5 History and Social Science: GOVT.1 Science: PH.1	10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving 11. Apply the Design Process	Computer Integrated Manufacturing (CIM) Engineering Design Flight Endurance System Control Technology Video Game Design

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		9. Engineering Design	
Produce the result of the design process.	English: 9.2, 10.2, 11.2, 12.2 Science: PH.1	12. Use and Maintain Technological Products and Systems	Computer Integrated Manufacturing (CIM) Engineering Design Transportation Modeling Video Game Design
Evaluating a Technological Solution			
Evaluate the solution by comparing it with the problem statement.	English: 9.5, 10.5, 11.5, 12.5 History and Social Science: GOVT.1 Mathematics: G.1 Science: PH.1	4. The Cultural, Social, Economic, and Political Effects of Technology 5. The Effects of Technology on the Environment 6. The Role of Society in the Development and Use of Technology	Computer Integrated Manufacturing (CIM) Engineering Design Flight Endurance Transportation Modeling Video Game Design
Assess the impact of the product on individuals,	English: 9.5, 10.5, 11.5, 12.5	4. The Cultural, Social, Economic, and	Biotechnology Design

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
resources, society, and the environment.	History and Social Science: VUS.13, VUS.14, WHII.13, WHII.14 Mathematics: AFDA.8, PS.8*, PS.10* Science: PH.4	Political Effects of Technology 5. The Effects of Technology on the Environment 6. The Role of Society in the Development and Use of Technology	Engineering Design
Produce a technical report as part of a team.	English: 9.1, 9.6, 9.7, 10.1, 10.6, 10.7, 11.1, 11.6, 11.7, 12.1, 12.6, 12.7 Science: PH.1	13. Assess the Impact of Products and Systems 17. Information and Communication Technologies 9. Engineering Design	Engineering Design System Control Technology
Present a final project report as part of a team.	English: 9.1, 9.2, 10.1, 10.2, 11.1, 11.2, 12.1, 12.2 Science: PH.1	12. Use and Maintain Technological Products and Systems 13. Assess the Impact of Products and Systems	Computer Integrated Manufacturing (CIM) Engineering Design Prepared Presentation

Task	SOL Correlations	ITEEA National Standards	TSA Competitive Events
		17. Information and Communication Technologies	Video Game Design