

Standards Correlations

Technology Assessments (8406, 8407)

Task	SOL Correlations
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 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,

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	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	
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 History and Social Science: CE.1, CE.4, CE.12, GOVT.1, GOVT.15, USI.1, USII.1,

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	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, AFDA.7, AFDA.8, COM.1, COM.3, COM.5, COM.8
Demonstrate information-literacy skills.	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 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, 7.8, 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* Science: 6.1, BIO.1, CH.1, ES.1, LS.1, PH.1, PS.1
Demonstrate an understanding of information security.	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 History and Social Science: CE.1, CE.4, CE.14, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1

Task	SOL Correlations
	Mathematics: COM.10
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 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
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

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	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.	
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	

Task	SOL Correlations
organizations as an adult.	
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.	
Analyzing the Fundamentals of Technological Assessment	
Keep an engineering design journal.	<p>English: 11.6, 11.7, 12.6, 12.7</p> <p>ITEEA National Standards: 13. Assess the Impact of Products and Systems</p> <p>TSA Competitive Events: 3D Animation Animatronics Architectural Design Biotechnology Design Chapter Team</p>

Task	SOL Correlations
	Children's Stories Coding Computer Integrated Manufacturing (CIM) Computer-Aided Design (CAD), Architecture Computer-Aided Design (CAD), Engineering Debating Technological Issues Digital Video Production Dragster Design Engineering Design Essays on Technology Extemporaneous Speech Fashion Design and Technology Flight Endurance Future Technology Teacher Geospatial Technology (Virginia only) Music Production On Demand Video Photographic Technology Prepared Presentation Principles of Technology (Virginia only) Promotional Design STEM Careers Scientific Visualization (SciVis) Software Development Structural Design and Engineering System Control Technology Technology Bowl Technology Problem Solving Transportation Modeling Video Game Design Webmaster

Task	SOL Correlations
Define <i>technology assessment</i> .	<p>English: 11.3, 12.3</p> <p>ITEEA National Standards: 13. Assess the Impact of Products and Systems</p> <p>TSA Competitive Events: Engineering Design</p>
Explain the concept of appropriate technology.	<p>English: 11.5, 12.5</p> <p>History and Social Science: GOVT.14, GOVT.15, VUS.2, VUS.3, VUS.4, VUS.6, VUS.7, VUS.8, VUS.9, VUS.10, VUS.11, VUS.12, VUS.13, VUS.14, WG.4, WG.15, WG.16, WG.17, 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.15, WHII.2, WHII.3, WHII.4, WHII.5, WHII.6, WHII.7, WHII.8, WHII.9, WHII.10, WHII.11, WHII.12, WHII.13, WHII.14</p> <p>ITEEA National Standards: 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 7. The Influence of Technology on History</p> <p>TSA Competitive Events: Engineering Design</p>
Identify organizations and groups involved with technology assessment.	<p>English: 11.5, 12.5</p> <p>History and Social Science: GOVT.7, GOVT.14, GOVT.15</p> <p>ITEEA National Standards: 6. The Role of Society in the Development and Use of Technology</p>

Task	SOL Correlations
Explain the historical interaction between technology and society.	<p>English: 11.5, 12.5</p> <p>History and Social Science: GOVT.14, GOVT.15, VUS.2, VUS.3, VUS.4, VUS.6, VUS.7, VUS.8, VUS.9, VUS.10, VUS.11, VUS.12, VUS.13, VUS.14, WG.4, WG.15, WG.16, WG.17, 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.15, WHII.2, WHII.3, WHII.4, WHII.5, WHII.6, WHII.7, WHII.8, WHII.9, WHII.10, WHII.11, WHII.12, WHII.13, WHII.14</p> <p>ITEEA National Standards: 6. The Role of Society in the Development and Use of Technology 7. The Influence of Technology on History</p> <p>TSA Competitive Events: Essays on Technology</p>
Describe a current socio-technological issue.	<p>English: 11.5, 12.5</p> <p>History and Social Science: GOVT.12, VUS.14, WG.17, WHII.14</p> <p>ITEEA National Standards: 4. The Cultural, Social, Economic, and Political Effects of Technology</p> <p>TSA Competitive Events: Biotechnology Design</p>
Analyzing Technological Impacts	
Identify consequences of technological developments.	<p>English: 11.5, 12.5</p> <p>ITEEA National Standards: 5. The Effects of Technology on the Environment 6. The Role of Society in the Development and Use of Technology</p>

Task	SOL Correlations
	TSA Competitive Events: Essays on Technology
Analyze the life cycle of consumer products and systems.	History and Social Science: GOVT.14, GOVT.15
Describe replacements of outdated technologies.	English: 11.5, 12.5 ITEEA National Standards 4. The Cultural, Social, Economic, and Political Effects of Technology
Analyze the relationship between technology and the environment.	English: 11.5, 12.5 History and Social Science: GOVT.14, GOVT.15, VUS.14, WG.17, WHIL.14 ITEEA National Standards: 5. The Effects of Technology on the Environment TSA Competitive Events: Essays on Technology Technology Bowl
Analyze the relationship between technological demand and resources.	English: 11.5, 12.5 History and Social Science: GOVT.14, GOVT.15, VUS.14, WG.14, WG.17 ITEEA National Standards: 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 7. The Influence of Technology on History TSA Competitive Events: Biotechnology Design

Task	SOL Correlations
	Essays on Technology
Forecasting Technologies	
Define <i>forecasting</i> .	English: 11.3, 12.3
Describe the factors necessary for changes in technology.	English: 11.5, 12.5 History and Social Science: GOVT.12, GOVT.14, GOVT.15, VUS.14, WG.4, WG.17, WHII.14 ITEEA National Standards: 4. The Cultural, Social, Economic, and Political Effects of Technology
Explain forecasting methods.	English: 11.5, 12.5
Evaluate forecast results.	English: 11.5, 12.5 Mathematics: PS.7*, PS.8*
Predict future conditions and technologies.	English: 11.5, 11.8, 12.5, 12.8 ITEEA National Standards: 4. The Cultural, Social, Economic, and Political Effects of Technology
Innovating a Technical Product or System	
Assess a product or system currently in the market.	English: 11.5, 11.8, 12.5, 12.8 History and Social Science: GOVT.14, GOVT.15 ITEEA National Standards: 4. The Cultural, Social, Economic, and Political Effects of Technology TSA Competitive Events: Biotechnology Design

Task	SOL Correlations
Incorporate aspects of universal design into a product or system.	<p>Engineering Design</p> <p>English: 11.5, 12.5</p> <p>ITEEA National Standards: 8. The Attributes of Design 9. Engineering Design</p> <p>TSA Competitive Events: Engineering Design</p>
Innovate a product or system to solve a problem or satisfy a need.	<p>English: 11.3, 11.5, 12.3, 12.5</p> <p>Mathematics: COM.1, COM.2, COM.3, COM.4, COM.6, COM.7, COM.8, COM.9</p> <p>ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving</p> <p>TSA Competitive Events: Computer-Aided Design (CAD), Engineering Engineering Design</p>
Identify product-development costs and funding sources.	<p>English: 11.5, 12.5</p> <p>ITEEA National Standards: 13. Assess the Impact of Products and Systems</p>
Use 3D modeling and analysis.	<p>Mathematics: G.13, G.14</p> <p>ITEEA National Standards: 10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving</p>

Task	SOL Correlations
	TSA Competitive Events: Computer-Aided Design (CAD), Engineering
Describe the evaluation process used to design a product or system.	English: 11.5, 12.5 ITEEA National Standards: 9. Engineering Design
Producing a Technical Product or System as a Team	
Apply safety procedures and practices.	English: 11.5, 12.5 Science: CH.1 ITEEA National Standards: 12. Use and Maintain Technological Products and Systems
Produce a model or prototype that represents improvement in a product or system.	English: 11.8, 12.8 ITEEA National Standards: 12. Use and Maintain Technological Products and Systems
Diagram material flow through the supply chain.	ITEEA National Standards: 4. The Cultural, Social, Economic, and Political Effects of Technology
Identify components of a quality assurance plan.	English: 11.5, 12.5 Mathematics: AFDA.8, PS.8*, PS.9*, PS.10* TSA Competitive Events: Engineering Design
Use tools, machines, materials, and processes.	ITEEA National Standards: 12. Use and Maintain Technological Products and Systems
Evaluate a product or system.	English: 11.5, 12.5

Task	SOL Correlations
	ITEEA National Standards: 13. Assess the Impact of Products and Systems
Produce an engineering design portfolio for a product or system.	English: 11.1, 12.1 TSA Competitive Events: Engineering Design Promotional Design
Present the product or system as a team.	English: 11.5, 12.5 TSA Competitive Events: Engineering Design Technology Problem Solving