

# Standards Correlations

## Imaging Technology

**8455 (36 weeks) and 8474 (18 weeks)**

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
<b>Demonstrating Personal Qualities and Abilities</b>			
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,		

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
	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*		

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	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		
<b>Demonstrating Interpersonal Skills</b>			

<b>Task</b>	<b>SOL Correlation</b>	<b>ITEEA National Standards</b>	<b>TSA Competitive Events</b>
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,		

<b>Task</b>	<b>SOL Correlation</b>	<b>ITEEA National Standards</b>	<b>TSA Competitive Events</b>
	VUS.1, WG.1, WHL.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, WHL.1, WHII.1		
<b>Demonstrating Professional Competencies</b>			
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, VUS.1, WG.1, WHL.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, WHL.1, WHII.1 Mathematics: 8.4		

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
Demonstrate continuous learning and adaptability.	<p>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</p> <p>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</p> <p>Science: BIO.1, CH.1, LS.1, PH.1, PH.4, PS.1</p>		
Manage time and resources.	<p>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</p> <p>History and Social Science: CE.1, CE.4, CE.11, GOVT.1, USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1</p> <p>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</p>		

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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,</p>		

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
	USI.1, USII.1, VUS.1, WG.1, WHI.1, WHII.1 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		



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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,		

<b>Task</b>	<b>SOL Correlation</b>	<b>ITEEA National Standards</b>	<b>TSA Competitive Events</b>
	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		
<b>Examining All Aspects of an Industry</b>			
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			

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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		
<b>Addressing Elements of Student Life</b>			
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.			
Demonstrate leadership skills through participation in			

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student organization activities, such as meetings, programs, and projects.			
Identify Internet safety issues and procedures for complying with acceptable use standards.			
<b>Exploring Work-Based Learning</b>			
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.			
<b>Introducing Imaging Technology</b>			
Explain the term <i>imaging technology</i> .	English: 9.5, 9.8, 10.5, 10.8, 11.5, 11.8, 12.5, 12.8  History and Social Science: VUS.14, WHII.14		
Research the history and development of imaging technology.	English: 9.5, 9.8, 10.5, 10.8, 11.5, 11.8, 12.5, 12.8	1. The Characteristics and Scope of Technology	

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
	History and Social Science: VUS.1, VUS.6, VUS.8, VUS.10, VUS.13, VUS.14, WHII.14	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 and Use of Technology  7. The Influence of Technology on History  17. Information and Communication Technologies	
Describe three-dimensional (3D) imaging, such as VR and medical imaging.	English: 9.5, 10.5, 11.5, 12.5  History and Social Science: VUS.14, WHII.14		
Create a device that can project a simple hologram.			
Rotate 3D images on a computer screen.			

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
Outline a brief history of photographic technology.	English: 9.6, 9.7, 10.6, 10.7, 11.6, 11.7, 12.6, 12.7  History and Social Science: VUS.14, WHII.14		
<b>Exploring Ethics and Laws in Imaging Technology</b>			
Explore ethical issues related to imaging technology.	English: 9.5, 10.5, 11.5, 12.5  History and Social Science: VUS.14, WHII.14		
Explore legal issues related to imaging technology.	English: 9.5, 10.5, 11.5, 12.5		
<b>Exploring Medical Imaging</b>			
Explain the differences among types of medical imaging.	English: 9.5, 10.5, 11.5, 12.5  History and Social Science: VUS.14, WHII.14		
Examine radiographs (e.g., X-rays) to determine limits of an abnormality.			
Examine MRI images.			
Examine CT images.			
Examine ultrasound images.			
<b>Examining Photographic Imaging</b>			
Define the term <i>photography</i> .	English: 9.3, 10.3, 11.3, 12.3	1. The Characteristics and Scope of Technology  3. The Relationships Among Technologies and the	

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
		Connections Between Technology and Other Fields	
Identify camera types and parts.	English: 9.5, 10.5, 11.5, 12.5	2. The Core Concepts of Technology  3. The Relationships Among Technologies and the Connections Between Technology and Other Fields  14. Medical Technologies  17. Information and Communication Technologies	
Examine the characteristics and uses of various lenses.	English: 9.5, 10.5, 11.5, 12.5  Science: PH.4	13. Assess the Impact of Products and Systems	Photographic Technology
Examine genres of photography.	English: 9.5, 10.5, 11.5, 12.5		
<b>Planning Images</b>			
Propose an image.	English: 9.5, 10.5, 11.5, 12.5		
Plan an image production schedule.	English: 9.5, 10.5, 11.5, 12.5		
Define <i>composition</i> and its components.	English: 9.3, 10.3, 11.3, 12.3  History and Social Science: WHI.15, WHII.2		
<b>Capturing Images</b>			

<b>Task</b>	<b>SOL Correlation</b>	<b>ITEEA National Standards</b>	<b>TSA Competitive Events</b>
Capture an image using the rule of thirds.	Mathematics: G.3	11. Apply the Design Process  12. Use and Maintain Technological Products and Systems  17. Information and Communication Technologies	Biotechnology Design  Photographic Technology  Webmaster
Produce an image using balance.	History and Social Science: WHI.15, WHII.2  Mathematics: G.3	11. Apply the Design Process  12. Use and Maintain Technological Products and Systems  17. Information and Communication Technologies	Biotechnology Design  Webmaster
Compose a photograph that demonstrates rhythm in environment.		11. Apply the Design Process  12. Use and Maintain Technological Products and Systems  13. Assess the Impact of Products and Systems	Biotechnology Design  Photographic Technology  Webmaster
Demonstrate depth of field.	History and Social Science: WHI.15, WHII.2		
Use the shutter to control motion.			
Produce photographic images using various techniques.	History and Social Science: WHI.15, WHII.2	8. The Attributes of Design	Biotechnology Design



<b>Task</b>	<b>SOL Correlation</b>	<b>ITEEA National Standards</b>	<b>TSA Competitive Events</b>
		11. Apply the Design Process  13. Assess the Impact of Products and Systems	Digital Video Production  Engineering Design  Photographic Technology  Webmaster
Use natural lighting to create a properly exposed image.	History and Social Science: WHI.15, WHII.2  Mathematics: G.8, T.3  Science: PH.9	2. The Core Concepts of Technology  3. The Relationships Among Technologies and the Connections Between Technology and Other Fields  13. Assess the Impact of Products and Systems	Digital Video Production  Photographic Technology
Use artificial lighting to create a properly exposed image.	Mathematics: G.8, T.3		
Use lighting techniques to create a dramatic effect on a photographic image.	History and Social Science: WHI.15, WHII.2	8. The Attributes of Design  10. The Role of Troubleshooting, Research and Development, Invention and Innovation, and Experimentation in Problem Solving	Biotechnology Design  Photographic Technology

Task	SOL Correlation	ITEEA National Standards	TSA Competitive Events
		11. Apply the Design Process  13. Assess the Impact of Products and Systems	
<b>Working in the Darkroom</b>			
Demonstrate safety and environmentally friendly practices in the darkroom.			
Demonstrate the handling and care of equipment in the darkroom.			
Examine the physical and chemical properties of film and paper.	English: 9.5, 10.5, 11.5, 12.5		
<b>Exploring Post-Production Processes</b>			
Manage digital images, using software.	English: 9.5, 10.5, 11.5, 12.5		
Enhance digital images, using software.			
Scan an image from a photograph.			
Transfer photos.			
Manipulate an image.			
Present images.	English: 9.1, 9.2, 10.1, 10.2, 11.1, 11.2, 12.1, 12.2		
Maintain a portfolio of photographic images.			
Critique student photographs.	English: 9.1, 9.5, 9.6, 9.7, 10.1, 10.5, 10.6, 10.7, 11.1, 11.5,		

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	11.6, 11.7, 12.1, 12.5, 12.6, 12.7		
<b>Examining 3D Imaging</b>			
Explain x, y, and z coordinate planes.	English: 9.5, 10.5, 11.5, 12.5		
Create 3D geometric objects.			
Use parametric modeling software.			
Examine VR.			
Generate VR background and objects.			
Generate first-person viewpoint actions in VR.			
<b>Exploring Careers in Imaging</b>			
Evaluate the work of a published or professional photographer.	English: 9.5, 10.5, 11.5, 12.5	11. Apply the Design Process  13. Assess the Impact of Products and Systems  17. Information and Communication Technologies	
Explore careers in imaging technology.	English: 9.8, 10.8, 11.8, 12.8  Science: PH.4	1. The Characteristics and Scope of Technology  4. The Cultural, Social, Economic, and Political Effects of Technology	Biotechnology Design  Digital Video Production  Photographic Technology  Webmaster

<b>Task</b>	<b>SOL Correlation</b>	<b>ITEEA National Standards</b>	<b>TSA Competitive Events</b>
		6. The Role of Society in the Development and Use of Technology  17. Information and Communication Technologies	
Research the integration of imaging technology in various industries.	English: 9.8, 10.8, 11.8, 12.8		