

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
126.19.c.1	8.1	<i>Computational thinking</i> – foundations. The student explores the core concepts of computational thinking, a set of problem-solving processes that involve decomposition, pattern recognition, abstraction, and algorithms.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.1.A	8.1.A	decompose real-world problems into structured parts using pseudocode	Direct alignment between student expectations	Science.8.1.B use scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems	Math.8.1.B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution	SS.8.31.B use problem-solving and decision-making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution					
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	ELAR.8.12.B develop and revise a plan							
126.19.c.1.B	8.1.B	analyze the patterns and sequences found in pseudocode and identify its variables	Direct alignment between student expectations	Science.8.2.B analyze data by identifying any significant descriptive statistical features, patterns, sources of error, or limitations	Math.8.1.F analyze mathematical relationships to connect and communicate mathematical ideas	SS.8.29.C organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps	ELAR.8.5.H synthesize information to create new understanding			Music.MS.1.1.D identify musical forms presented aurally and through music notation such as binary, ternary, phrasic, rondo, and theme and variations	
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.1.C	8.1.C	practice abstraction by developing a generalized algorithm that can solve different types of problems	Direct alignment between student expectations	Science.8.1.B use scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems	Math.8.1.B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution	SS.8.31.B use problem-solving and decision-making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution	ELAR.8.12.B develop and revise a plan				
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.1.D	8.1.D	design a plan collaboratively using pseudocode to document a problem, possible solutions, and an expected timeline for the development of a coded solution	Direct alignment between student expectations	Science.8.1.B use scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems	Math.8.1.B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution	SS.8.31.B use problem-solving and decision-making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution	ELAR.8.1.D participate collaboratively in discussions, plan agendas with clear goals and deadlines, set time limits for speakers, take notes, and vote on key issues				
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.1.E	8.1.E	develop, compare, and improve algorithms for a specific task to solve a problem	Direct alignment between student expectations	Science.8.2.B analyze data by identifying any significant descriptive statistical features, patterns, sources of error, or limitations	Math.8.1.F analyze mathematical relationships to connect and communicate mathematical ideas						

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.1.F	8.1.F	analyze the benefits of using iteration (code and sequence repetition) in algorithms.	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.2	8.2	Computational thinking –applications. The student applies the fundamentals of computer science.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.2.A	8.2.A	construct named variables with multiple data types and perform operations on their values	Direct alignment between student expectations		Math.8.8.A write one-variable equations or inequalities with variables on both sides that represent problems using rational number coefficients and constants						
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.2.B	8.2.B	use a software design process to create text-based programs with nested loops that address different subproblems within a real-world context	Direct alignment between student expectations								
			Core content TEKS that could be used to embed a technology concept or skill. TEA staff has provided additional TEKS connections as illustrative examples when applicable. Use this space to add your own local connections.	Science.8.9.A describe the life cycle of stars and compare and classify stars using the Hertzsprung-Russell diagram SS.8.11.A analyze how physical characteristics of the environment influenced population distribution, settlement patterns, and economic activities in the United States							
126.19.c.2.C	8.2.C	modify and implement previously written code to develop improved programs	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.								

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
126.19.c.3	8.3	<i>Creativity and Innovation</i> —innovative design process. The student takes an active role in learning by using a design process and creative thinking to develop and evaluate solutions, considering a variety of local and global perspectives.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.3.A	8.3.A	demonstrate innovation in a design process using goal setting and personal character traits, including demonstrating calculated risk-taking and tolerance	Direct alignment between student expectations	Science.8.4.A relate the impact of past and current research on scientific thought and society, including the process of science, cost-benefit analysis, and contributions of diverse scientists as related to the content	No mathematics connection made	SS.8.27.A explain the effects of technological and scientific innovations such as the steamboat, the cotton gin, the telegraph, and interchangeable parts SS.8.27.B analyze how technological innovations changed the way goods were manufactured and distributed, nationally and internationally SS.8.27.C analyze how technological innovations brought about economic growth such as the development of the factory system and the construction of the Transcontinental Railroad SS.8.28.A compare the effects of scientific discoveries and technological innovations that have influenced daily life in different periods in U.S. history					
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.3.B	8.3.B	discuss and implement a design process that includes planning, selecting digital tools to develop, test, and evaluate design limitations, and refining a prototype or model	Direct alignment between student expectations	Science.8.2.A identify advantages and limitations of models such as their size, scale, properties, and materials Science.8.2.D evaluate experimental and engineering designs	Math.8.1.B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution	SS.8.31.B use problem-solving and decision-making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution	No English Language Arts and Reading connection made				
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.3.C	8.3.C	identify how the design process is used in various industries	Direct alignment between student expectations	Science.8.4.C research and explore resources such as museums, libraries, professional organizations, private companies, online platforms, and mentors employed in a science, technology, engineering, and mathematics (STEM) field to investigate STEM careers	Math.8.1.A apply mathematics to problems arising in everyday life, society, and the workplace	SS.8.27.A explain the effects of technological and scientific innovations such as the steamboat, the cotton gin, the telegraph, and interchangeable parts					
			Use this space to identify additional connections between technology applications standards and other content standards. Some illustrative examples are provided.	Theatre.MS.1.3.D use technology in theatrical applications such as live theatre, video, and film Theatre.MS.1.4.B explore the influences of theatre, film, television, and electronic media such as key developments, figures, and works in society							
126.19.c.4	8.4	<i>Creativity and Innovation</i> —emerging technologies. The student demonstrates a thorough understanding of the role of technology throughout history and its impact on societies.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.4.A	8.4.A	evaluate how changes in technology throughout history have impacted various areas of study	Direct alignment between student expectations	Science.8.4.A relate the impact of past and current research on scientific thought and society, including the process of science, cost-benefit analysis, and contributions of diverse scientists as related to the content		SS.8.28.A compare the effects of scientific discoveries and technological innovations that have influenced daily life in different periods in U.S. history	No English Language Arts and Reading connection made	Theatre.MS.1.4.B explore the influences of theatre, film, television, and electronic media such as key developments, figures, and works in society			

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.4.B	8.4.B	evaluate and predict how global trends impact the development of technology	Direct alignment between student expectations	Science.8.4.A relate the impact of past and current research on scientific thought and society, including the process of science, cost-benefit analysis, and contributions of diverse scientists as related to the content		SS.8.27.B analyze how technological innovations changed the way goods were manufactured and distributed, nationally and internationally					
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Theatre.MS.1.4.B explore the influences of theatre, film, television, and electronic media such as key developments, figures, and works in society							
126.19.c.4.C	8.4.C	transfer current knowledge to the learning of newly encountered technologies	Direct alignment between student expectations	Science.8.4.A relate the impact of past and current research on scientific thought and society, including the process of science, cost-benefit analysis, and contributions of diverse scientists as related to the content		SS.8.28.A compare the effects of scientific discoveries and technological innovations that have influenced daily life in different periods in U.S. history					
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.5	8.5	Data literacy, management, and representation –collect data. The student uses advanced digital strategies to collect and represent data.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.5.A	8.5.A	compare and contrast data types, including binary, integers, real numbers, Boolean data, and text-based representations	Direct alignment between student expectations		Math.8.1.F analyze mathematical relationships to connect and communicate mathematical ideas	SS.8.29.C organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps					
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Science.8.1.E collect quantitative data using the International System of Units (SI) and qualitative data as evidence							
126.19.c.5.B	8.5.B	apply appropriate search strategies, including keywords, Boolean operators, and limiters, to achieve a specified outcome that includes a variety of file formats	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards. Some illustrative examples are provided.	Science.8.6.B use the periodic table to identify the atoms involved in chemical reactions SS.15.A dentify the influence of ideas from historic documents, including the Magna Carta, the English Bill of Rights, the Mayflower Compact, and the Federalist Papers, on the U.S. system of government							

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
126.19.c.6	8.6	<i>Data literacy, management, and representation -- organize, manage, and analyze data. The student uses digital tools to transform data, make inferences, and predictions.</i>	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.6.A	8.6.A	use digital tools in order to transform data, analyze trends, and predict possibilities and develop steps for the creation of an innovative process or product	Direct alignment between student expectations	Science.8.2.D analyze data by identifying any significant descriptive statistical features, patterns, sources of error, or limitations	Math.8.1.E create and use representations to organize, record, and communicate mathematical ideas	SS.8.29.C organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps	ELAR.8.5.H synthesize information to create new understanding				
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.7	8.7	<i>Data literacy, management, and representation -- communicate and publish results. The student creates digital products to communicate data to an audience for an intended purpose.</i>	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.7.A	8.7.A	use digital tools to communicate and publish data from a product or process to persuade an intended audience	Direct alignment between student expectations	Science.8.3.B communicate explanations and solutions individually and collaboratively in a variety of settings and formats	Math.8.1.G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication	SS.8.30.C create written, oral, and visual presentations of social studies information SS.8.30.D apply foundational language skills to engage in civil discourse about social studies topics, including those with multiple perspectives	ELAR.8.10.E publish written work for appropriate audiences		Theatre.MS.1.3.D use technology in theatrical applications such as live theatre, video, and film		
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.8	8.8	<i>Digital citizenship --social interactions. The student understands different styles of digital communication and that a student's actions online can have a long-term impact.</i>	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.8.A	8.8.A	analyze the importance of managing a digital footprint and how a digital footprint can affect the future	Direct alignment between student expectations					Health.7-8.13.C evaluate strategies and techniques for identity protection in digital and online environments			
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Health.7-8.13.B discuss and analyze the consequences resulting from inappropriate digital and online communication such as social media posts, sending and receiving photos, sexting, and pornography							
126.19.c.8.B	8.8.B	create and publish a formal digital communication for a global audience using appropriate digital etiquette	Direct alignment between student expectations	Science.8.3.B communicate explanations and solutions individually and collaboratively in a variety of settings and formats	Math.8.1.G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication	SS.8.30.C create written, oral, and visual presentations of social studies information	ELAR.8.10.E publish written work for appropriate audiences	Health.7-8.13.A develop strategies to resist inappropriate digital and online communication such as social media posts, sending and receiving photos, sexting, and pornography Health.7-8.13.B discuss and analyze the consequences resulting from inappropriate digital and online communication such as social media posts, sending and receiving photos, sexting, and pornography			

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Art.MS.1.2.C produce artworks, including drawings, paintings, prints, sculptures/modeled forms, ceramics, fiber art, photographic imagery, and digital art and media, using a variety of materials							
126.19.c.8.C	8.8.C	collaborate and publish for a global audience on digital platforms such as recording and editing videos using appropriate formal and informal digital etiquette	Direct alignment between student expectations	Science.8.3.B communicate explanations and solutions individually and collaboratively in a variety of settings and formats	Math.8.1.G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication	SS.8.30.C create written, oral, and visual presentations of social studies information	ELAR.8.1.D participate collaboratively in discussions, plan agendas with clear goals and deadlines, set time limits for speakers, take notes, and vote on key issues ELAR.8.10.E publish written work for appropriate audiences	Health.7-8.13.A develop strategies to resist inappropriate digital and online communication such as social media posts, sending and receiving photos, sexting, and pornography Health.7-8.13.B discuss and analyze the consequences resulting from inappropriate digital and online communication such as social media posts, sending and receiving photos, sexting, and pornography			
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Art.MS.1.2.C produce artworks, including drawings, paintings, prints, sculptures/modeled forms, ceramics, fiber art, photographic imagery, and digital art and media, using a variety of materials							
126.19.c.9	8.9	Digital citizenship --ethics and laws. The student recognizes and practices responsible, legal, and ethical behavior while using digital tools and resources.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.9.A	8.9.A	adhere to local acceptable use policy (AUP) and practice and advocate for safe, ethical, and positive online behaviors	Direct alignment between student expectations					Health.7-8.13.B discuss and analyze the consequences resulting from inappropriate digital and online communication such as social media posts, sending and receiving photos, sexting, and pornography			
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.9.B	8.9.B	adhere to appropriate intellectual property law when creating digital products	Direct alignment between student expectations			SS.8.30.B use effective written communication skills, including proper citations and avoiding plagiarism	ELAR.8.12.G differentiate between paraphrasing and plagiarism when using source materials ELAR.8.12.I display academic citations and use source materials ethically				
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.9.C	8.9.C	create citations and cite sources for a variety of digital forms of intellectual property	Direct alignment between student expectations			SS.8.30.B use effective written communication skills, including proper citations and avoiding plagiarism	ELAR.8.12.I display academic citations and use source materials ethically				
			Use this space to identify additional connections between technology applications standards and other content standards.								

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
126.19.c.9.D	8.9.D	evaluate the bias of digital information sources, including websites	Direct alignment between student expectations	Science.8.4.B make informed decisions by evaluating evidence from multiple appropriate sources to assess the credibility, accuracy, cost-effectiveness, and methods used	Math.8.1.G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication	SS.8.29.D identify bias and points of view created by the historical context surrounding an event SS.8.29.F evaluate a variety of historical and contemporary sources for validity, credibility, bias, and accuracy	ELAR.8.12.H.1 examine sources for reliability, credibility, and bias, including omission				
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.10	8.1	Digital citizenship –privacy, safety, and security. The student practices safe, legal, and ethical digital behaviors to become a socially responsible digital citizen.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.10.A	8.10.A	analyze real-world scenarios to identify cybersecurity threats and propose ways to prevent harm	Direct alignment between student expectations					Health.7-8.13.C evaluate strategies and techniques for identity protection in digital and online environments			
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.10.B	8.10.B	evaluate scenarios or case studies to identify warning signs of a cyberbullying victim such as withdrawal or lack of sleep and predict the outcomes for both the victim and the bully	Direct alignment between student expectations					Health.7-8.13.E research the current legal consequences of cyberbullying and inappropriate digital and online communication			
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.11	8.11	Practical technology concepts –processes. The student evaluates and selects appropriate methods or techniques for an independent project and identifies and solves common hardware and software problems using troubleshooting strategies.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.11.A	8.11.A	combine various file formats for a specific project or audience	Direct alignment between student expectations	Science.8.3.B communicate explanations and solutions individually and collaboratively in a variety of settings and formats		SS.8.29.C organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps			Art.MS.1.2.C produce artworks, including drawings, paintings, prints, sculptures/modeled forms, ceramics, fiber art, photographic imagery, and digital art and media, using a variety of materials		
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Math.8.1.D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate							

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
126.19.c.11.B	8.11.B	share and seek feedback on files in various formats, including text, raster and vector graphics, video, and audio files	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.12	8.12	Practical technology concepts –skills and tools. The student leverages technology systems, concepts, and operations to produce digital artifacts.	A knowledge and skills statement is a broad statement of what students must know and be able to do.								
126.19.c.12.A	8.12.A	integrate use of appropriate technology terminology in scholarly inquiry and dialogue such as classroom discussion and written samples	Direct alignment between student expectations		Math.8.1.D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate						
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Math.8.1.G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication							
126.19.c.12.B	8.12.B	implement effective file management strategies independently, including file naming conventions, local and remote locations, backup, hierarchy, folder structure, file conversion, tags, and emerging digital organizational strategies	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.12.C	8.12.C	select and use appropriate platform and tools, including selecting and using software or hardware to transfer data	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.	Add local content connections here.							
126.19.c.12.D	8.12.D	demonstrate improvement in speed and accuracy as measured by words per minute when applying correct keyboarding techniques	Direct alignment between student expectations								

Rule Text	TEKS Notation	Technology Applications TEKS	Connections	Science Connections	Mathematics Connections	Social Studies Connections	English Language Arts and Reading Connections	Health Connections	Fine Arts Connections	Languages Other Than English Connections	Physical Education Connections
			Use this space to identify additional connections between technology applications standards and other content standards.	Add local content connections here.							
126.19.c.12.E	8.12.E	select and use appropriate shortcuts within applications	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.12.F	8.12.F	apply appropriate troubleshooting techniques and seek technical assistance as needed	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.12.G	8.12.G	compare types of local and remote data storage such as cloud architecture or local server and select the appropriate type of storage to store and share data	Direct alignment between student expectations								
			Use this space to identify additional connections between technology applications standards and other content standards.								
126.19.c.12.H	8.12.H	select and use productivity tools found in spread sheet, word processing, and publication applications to create digital artifacts, including reports, graphs, and charts, with increasing complexity	Direct alignment between student expectations	Science.8.3.B communicate explanations and solutions individually and collaboratively in a variety of settings and formats		Math.8.1.D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	SS.8.30.C create written, oral, and visual presentations of social studies information				
			Use this space to identify additional connections between technology applications standards and other content standards. An illustrative example is provided.	Theatre.MS.1.3.D use technology in theatrical applications such as live theatre, video, and film							