Design Technology
AY 26-27

STRAND	STANDARDS/SKILLS (AISK: Learning with Technology)	9th	10th	11th/12th
Empowered Learner	**EL1.12.1** Articulate and set personal learning goals, develop strategies leveraging technology to achieve them, and reflect on the learning process itself to improve learning outcomes.	—	—	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by setting learning goals and reflecting progress. During the 3D Modelling unit, students create, refine, render, and export three-dimensional models, demonstrating the standard by setting learning goals and reflecting progress.
	EL1.12.2 Build networks and customize their learning environments in ways that support the learning process.	—	Design Engineering: During the Safe Home—Investigating and Defining unit, students define the safe-home need, research solutions and set success criteria, demonstrating the standard by using digital resources and workspaces to support learning. During the Smart Home—Investigating and Defining unit, students define the smart-home need, research solutions and set success criteria, demonstrating the standard by using digital resources and workspaces to support learning.	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by using digital resources and workspaces to support learning. During the 3D Modelling unit, students create, refine, render, and export three-dimensional models, demonstrating the standard by using digital resources and workspaces to support learning. Design Engineering: During the Safe Home—Investigating and Defining unit, students define the safe-home need, research solutions and set success criteria, demonstrating the standard by using digital resources and workspaces to support learning. During the Smart Home—Investigating and Defining unit, students define the smart-home need, research solutions and set success criteria, demonstrating the standard by using digital resources and workspaces to support learning.
	EL1.12.3 Use technology to seek feedback that	—	Design Engineering: During the Safe Home—Evaluating and Managing unit,	AutoCAD: During the 2D Modelling unit, students produce accurate technical

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	informs and improves their practice and to demonstrate their learning in a variety of ways.		students test the solution, gather feedback and recommend improvements, demonstrating the standard by using digital feedback to improve their work. During the Smart Home—Evaluating and Managing unit, students test the prototype, gather feedback and recommend improvements, demonstrating the standard by using digital feedback to improve their work.	drawings using 2D tools, layers and dimensions, demonstrating the standard by using digital feedback to improve their work. During the 3D Modelling unit, students create, refine, render, and export three-dimensional models, demonstrating the standard by using digital feedback to improve their work. Design Engineering: During the Safe Home—Evaluating and Managing unit, students test the solution, gather feedback and recommend improvements, demonstrating the standard by using digital feedback to improve their work. During the Smart Home—Evaluating and Managing unit, students test the prototype, gather feedback and recommend improvements, demonstrating the standard by using digital feedback to improve their work.
	EL1.12.4 Understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies, and transfer their knowledge to explore emerging technologies.	Introduction to Computer Technology: During the What Is Computing? unit, students examine hardware, software, operating systems and emerging technologies, demonstrating the standard by selecting, using and troubleshooting appropriate technologies.	Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by selecting, using and troubleshooting appropriate technologies. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard by selecting, using and troubleshooting appropriate technologies. Cybersecurity: During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by selecting, using and	AutoCAD: During the Installation and Interface unit, students install AutoCAD and select suitable workspaces, tools and file formats, demonstrating the standard by selecting, using and troubleshooting appropriate technologies. Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by selecting, using and troubleshooting appropriate technologies. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard

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			troubleshooting appropriate technologies.	by selecting, using and troubleshooting appropriate technologies. Cybersecurity: During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by selecting, using and troubleshooting appropriate technologies.
Global Communicator and Collaborator	**GC1.12.1** Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	Introduction to Computer Technology: During the What Is Computing? unit, students examine hardware, software, operating systems and emerging technologies, demonstrating the standard by selecting tools suited to the task. During the Web Design unit, students plan, create and test websites using HTML and CSS, demonstrating the standard by selecting tools suited to the task.	Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by selecting tools suited to the task. During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by selecting tools suited to the task.	AutoCAD: During the Installation and Interface unit, students install AutoCAD and select suitable workspaces, tools and file formats, demonstrating the standard by selecting tools suited to the task. During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by selecting tools suited to the task. Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by selecting tools suited to the task. During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by selecting tools suited to the task.
	GC1.12.2 create original works or responsibly repurpose or remix digital resources into new creations.	Introduction to Computer Technology: During the Web Design unit, students plan, create and test websites using HTML and CSS, demonstrating the standard by creating original work and adapting resources responsibly.	Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by creating original work and adapting resources responsibly. During the Smart Home—Producing and Implementing unit, students plan, build,	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by creating original work and adapting resources responsibly. During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the

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			program and refine a smart-home prototype, demonstrating the standard by creating original work and adapting resources responsibly. Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by creating original work and adapting resources responsibly. During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by creating original work and adapting resources responsibly.	standard by creating original work and adapting resources responsibly. Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by creating original work and adapting resources responsibly. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard by creating original work and adapting resources responsibly. Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by creating original work and adapting resources responsibly. During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by creating original work and adapting resources responsibly.
	GC1.12.3 Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.	Introduction to Computer Technology: During the Web Design unit, students plan, create and test websites using HTML and CSS, demonstrating the standard by communicating ideas through digital models and visualizations.	Design Engineering: During the Safe Home—Investigating and Defining unit, students define the safe-home need, research solutions and set success criteria, demonstrating the standard by communicating ideas through digital models and visualizations. During the Safe Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by communicating ideas through digital models and visualizations.	AutoCAD: During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by communicating ideas through digital models and visualizations. Design Engineering: During the Safe Home—Investigating and Defining unit, students define the safe-home need, research solutions and set success criteria, demonstrating the standard by communicating ideas through digital models and visualizations. During the Safe Home—Designing and

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			During the Smart Home—Investigating and Defining unit, students define the smart-home need, research solutions and set success criteria, demonstrating the standard by communicating ideas through digital models and visualizations. Cybersecurity: During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by communicating ideas through digital models and visualizations. During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by communicating ideas through digital models and visualizations.	Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by communicating ideas through digital models and visualizations. During the Smart Home—Investigating and Defining unit, students define the smart-home need, research solutions and set success criteria, demonstrating the standard by communicating ideas through digital models and visualizations. Cybersecurity: During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by communicating ideas through digital models and visualizations. During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by communicating ideas through digital models and visualizations.
	GC1.12.4 Publish or present content that customizes the message and medium for their intended audiences.	—	Design Engineering: During the Smart Home—Investigating and Defining unit, students define the smart-home need, research solutions and set success criteria, demonstrating the standard by presenting content for an intended audience.	Design Engineering: During the Smart Home—Investigating and Defining unit, students define the smart-home need, research solutions and set success criteria, demonstrating the standard by presenting content for an intended audience.
	GC2.12.4 Explore local and global issues and use collaborative technologies to work with others to investigate solutions.	Introduction to Computer Technology: During the Emerging Technologies unit, students investigate AI, cloud computing, blockchain and their impact on society, demonstrating the standard by using technology to investigate authentic issues and solutions.	Design Engineering: During the Smart Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by using technology to investigate authentic issues and solutions.	Design Engineering: During the Smart Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by using technology to investigate authentic issues and solutions.

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Knowledge Constructor	**KC1.12.1** Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	Introduction to Computer Technology: During the What Is Computing? unit, students examine hardware, software, operating systems and emerging technologies, demonstrating the standard by planning research and locating relevant resources.	Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by planning research and locating relevant resources.	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by planning research and locating relevant resources. During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by planning research and locating relevant resources. Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by planning research and locating relevant resources.
	KC1.12.2 Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.	Introduction to Computer Technology: During the What Is Computing? unit, students examine hardware, software, operating systems and emerging technologies, demonstrating the standard by evaluating the credibility and relevance of information.	—	AutoCAD: During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by evaluating the credibility and relevance of information.
	KC1.12.3 Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.	Introduction to Computer Technology: During the What Is Computing? unit, students examine hardware, software, operating systems and emerging technologies, demonstrating the standard by organizing digital information to show connections.	Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by organizing digital information to show connections.	Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by organizing digital information to show connections.
	KC1.12.4 Build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.	Introduction to Computer Technology: During the Emerging Technologies unit, students investigate AI, cloud computing, blockchain and their impact on society, demonstrating the standard by developing knowledge and solutions to real-world problems.	Design Engineering: During the Safe Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by developing knowledge and solutions to real-world problems.	AutoCAD: During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by developing knowledge and solutions to real-world problems. Design Engineering: During the Safe

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			During the Smart Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by developing knowledge and solutions to real-world problems. Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing and the OSI model, demonstrating the standard by developing knowledge and solutions to real-world problems.	Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by developing knowledge and solutions to real-world problems. During the Smart Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by developing knowledge and solutions to real-world problems. Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing and the OSI model, demonstrating the standard by developing knowledge and solutions to real-world problems.
Digital Citizen	**DC1.12.1** Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	Introduction to Computer Technology: During the Introduction to AI unit, students explore generative AI, machine learning, prompting and responsible use, demonstrating the standard by examining digital identity, reputation and permanence. During the The Internet unit, students examine IP addresses, DNS, packets, routing and online communication, demonstrating the standard by examining digital identity, reputation and permanence.	Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by examining digital identity, reputation and permanence.	Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by examining digital identity, reputation and permanence.
	DC1.12.2 Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	Introduction to Computer Technology: During the Introduction to AI unit, students explore generative AI, machine learning, prompting and responsible use, demonstrating the standard by applying safe, legal and ethical technology practices. During the The Internet unit, students	Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by applying safe, legal and ethical technology practices.	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by applying safe, legal and ethical technology practices. During the 3D Modelling unit, students create, refine, render and export three-

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		examine IP addresses, DNS, packets, routing and online communication, demonstrating the standard by applying safe, legal and ethical technology practices.		dimensional models, demonstrating the standard by applying safe, legal and ethical technology practices. Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by applying safe, legal and ethical technology practices.
	DC1.12.3 Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	Introduction to Computer Technology: During the Introduction to AI unit, students explore generative AI, machine learning, prompting and responsible use, demonstrating the standard by respecting and crediting intellectual property. During the The Internet unit, students examine IP addresses, DNS, packets, routing and online communication, demonstrating the standard by respecting and crediting intellectual property.	Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by respecting and crediting intellectual property.	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by respecting and crediting intellectual property. During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by respecting and crediting intellectual property. Cybersecurity: During the Cybersecurity and You unit, students investigate privacy, digital ethics, cyber threats and prevention, demonstrating the standard by respecting and crediting intellectual property.
	DC1.12.4 Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.	Introduction to Computer Technology: During the The Internet unit, students examine IP addresses, DNS, packets, routing and online communication, demonstrating the standard by protecting data and understanding online tracking.	Design Engineering: During the Safe Home—Evaluating and Managing unit, students test the solution, gather feedback and recommend improvements, demonstrating the standard by protecting data and understanding online tracking. During the Smart Home—Evaluating and Managing unit, students test the prototype, gather feedback and recommend improvements, demonstrating the standard by protecting data and understanding	Design Engineering: During the Safe Home—Evaluating and Managing unit, students test the solution, gather feedback and recommend improvements, demonstrating the standard by protecting data and understanding online tracking. During the Smart Home—Evaluating and Managing unit, students test the prototype, gather feedback and recommend improvements, demonstrating the standard by protecting data and understanding

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			online tracking.	online tracking.
Innovative Designer	**ID1.12.1** Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	Introduction to Computer Technology: During the Web Design unit, students plan, create and test websites using HTML and CSS, demonstrating the standard by following a deliberate design process.	Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by following a deliberate design process. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard by following a deliberate design process. Cybersecurity: During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by following a deliberate design process.	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by following a deliberate design process. During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by following a deliberate design process. Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by following a deliberate design process. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard by following a deliberate design process. Cybersecurity: During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by following a deliberate design process.
	ID1.12.2 Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	Introduction to Computer Technology: During the Web Design unit, students plan, create and test websites using HTML and CSS, demonstrating the standard by planning design work within constraints and risks.	Design Engineering: During the Safe Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by planning design work within constraints and risks. During the Smart Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by planning design work within constraints and risks.	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by planning design work within constraints and risks. During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by planning design work within constraints and risks. Design Engineering: During the Safe

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			Cybersecurity: During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by planning design work within constraints and risks.	Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by planning design work within constraints and risks. During the Smart Home—Designing and Developing unit, students develop specifications, design alternatives and technical drawings, demonstrating the standard by planning design work within constraints and risks. Cybersecurity: During the Cryptography unit, students explore encryption, hashing, certificates and authentication, demonstrating the standard by planning design work within constraints and risks.
	ID1.12.3 develop, test and refine prototypes as part of a cyclical design process.	Introduction to Computer Technology: During the Web Design unit, students plan, create and test websites using HTML and CSS, demonstrating the standard by testing and refining prototypes.	Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by testing and refining prototypes. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard by testing and refining prototypes.	AutoCAD: During the 2D Modelling unit, students produce accurate technical drawings using 2D tools, layers and dimensions, demonstrating the standard by testing and refining prototypes. During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by testing and refining prototypes. Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by testing and refining prototypes. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard by testing and refining prototypes.
	ID1.12.4	Introduction to Computer Technology: During the Web Design unit, students	—	—

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	exhibit a tolerance for ambiguity, perseverance, and the capacity to work with open-ended problems.	plan, create and test websites using HTML and CSS, demonstrating the standard by persevering through open-ended design challenges.		
Computational Thinker	**CT1.12.1** Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.	Introduction to Computer Technology: During the Karel Programming unit, students use commands, loops and functions to build and debug algorithms, demonstrating the standard by defining problems for technology-assisted solutions.	Cybersecurity: During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by defining problems for technology-assisted solutions. During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by defining problems for technology-assisted solutions.	AutoCAD: During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by defining problems for technology-assisted solutions. Cybersecurity: During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by defining problems for technology-assisted solutions. During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by defining problems for technology-assisted solutions.
	CT1.12.2 Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.	Introduction to Computer Technology: During the Karel Programming unit, students use commands, loops and functions to build and debug algorithms, demonstrating the standard by using data to support decisions.	—	AutoCAD: During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by using data to support decisions.
	CT1.12.3 Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	Introduction to Computer Technology: During the Karel Programming unit, students use commands, loops and functions to build and debug algorithms, demonstrating the standard by decomposing problems and creating models. During the Digital Information unit, students represent text, numbers, and images using binary and digital formats,	Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype, demonstrating the standard by decomposing problems and creating models. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home	AutoCAD: During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by decomposing problems and creating models. Design Engineering: During the Safe Home—Producing and Implementing unit, students plan, build, document and refine a safe-home prototype,

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		demonstrating the standard by decomposing problems and creating models.	prototype, demonstrating the standard by decomposing problems and creating models. Cybersecurity: During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by decomposing problems and creating models. During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by decomposing problems and creating models.	demonstrating the standard by decomposing problems and creating models. During the Smart Home—Producing and Implementing unit, students plan, build, program and refine a smart-home prototype, demonstrating the standard by decomposing problems and creating models. Cybersecurity: During the System Administration unit, students manage operating systems, users, permissions and command-line tools, demonstrating the standard by decomposing problems and creating models. During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by decomposing problems and creating models.
	CT1.12.4 Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	Introduction to Computer Technology: During the Karel Programming unit, students use commands, loops and functions to build and debug algorithms, demonstrating the standard by sequencing and testing automated solutions. During the Digital Information unit, students represent text, numbers, and images using binary and digital formats, demonstrating the standard by sequencing and testing automated solutions.	Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by sequencing and testing automated solutions.	AutoCAD: During the 3D Modelling unit, students create, refine, render and export three-dimensional models, demonstrating the standard by sequencing and testing automated solutions. Cybersecurity: During the IT Concepts unit, students examine data representation, IP addressing, routing, and the OSI model, demonstrating the standard by sequencing and testing automated solutions.