

### 3-5 Crosswalk (CSTA Reviewer Grant Smith)

3-5 Final	Level 1B	3-5 Interim	Level 1B
1B-CS-01	Describe how internal and external parts of computing devices function to form a system.	1B-C-7-9	Model how a computer system works. [Clarification: Only includes basic elements of a computer system, such as input, output, processor, sensors, and storage.]
1B-CS-02	Model how computer hardware and software work together as a system to accomplish tasks.	1B-C-7-10	Use appropriate terminology in naming internal and external components of computing devices and describing their relationships, capabilities, and limitations.
1B-CS-03	Determine potential solutions to solve simple hardware and software problems using common troubleshooting strategies.	1B-C-6-11	Identify, using accurate terminology, simple hardware and software problems that may occur during use, and apply strategies for solving problems (e.g., reboot device, check for power, check network availability, close and reopen app).
1B-NI-04	Model how information is broken down into smaller pieces, transmitted as packets through multiple devices over networks and the Internet, and reassembled at the destination.	1B-N-4-21	Model how a device on a network sends a message from one device (sender) to another (receiver) while following specific rules.
1B-NI-05	Discuss real-world cybersecurity problems and how personal information can be protected.	1B-I-1-19	Explain problems that relate to using computing devices and networks (e.g., logging out to deter others from using your account, cyberbullying, privacy of personal information, and ownership).
1B-NI-05	Discuss real-world cybersecurity problems and how personal information can be protected.	1B-N-7-20	Create examples of strong passwords, explain why strong passwords should be used, and demonstrate proper use and protection of personal passwords.
1B-DA-06	Organize and present collected data visually to highlight relationships and support a claim.	1B-D-5-13	Answer a question by using a computer to (e.g., sort, total and/or average, chart, graph) and analyze data that has been collected by the class or student.
1B-DA-07	Use data to highlight or propose cause-and-effect relationships, predict outcomes, or communicate an idea.		
1B-AP-08	Compare and refine multiple algorithms for the same task and determine which is the most appropriate.	1B-A-2-1	Apply collaboration strategies to support problem solving within the design cycle of a program.



<b>3-5 Final</b>	<b>Level 1B</b>	<b>3-5 Interim</b>	<b>Level 1B</b>
1B-AP-09	Create programs that use variables to store and modify data. Variables are used to store and modify data.	1B-D-4-14	Use numeric values to represent non-numeric ideas in the computer (binary, ASCII, pixel attributes such as RGB).
1B-AP-09	Create programs that use variables to store and modify data. Variables are used to store and modify data.	1B-A-5-5	Use mathematical operations to change a value stored in a variable.
1B-AP-10	Create programs that include sequences, events, loops, and conditionals.	1B-A-5-4	Construct programs, in order to solve a problem or for creative expression, that include sequencing, events, loops, conditionals, parallelism, and variables, using a block-based visual programming language or text-based language, both independently and collaboratively (e.g., pair programming).
1B-AP-10	Create programs that include sequences, events, loops, and conditionals.	1B-A-3-7	Construct and execute an algorithm (set of step-by-step instructions) that includes sequencing, loops, and conditionals to accomplish a task, both independently and collaboratively, with or without a computing device.
1B-AP-11	Decompose (break down) problems into smaller, manageable subproblems to facilitate the program development process.	1B-A-3-6	Decompose (break down) a larger problem into smaller sub-problems, independently or in a collaborative group.
1B-AP-12	Modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.	1B-A-7-2	Use proper citations and document when ideas are borrowed and changed for their own use (e.g., using pictures created by others, using music created by others, remixing programming projects).
1B-AP-13	Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences.	1B-A-5-3	Create a plan as part of the iterative design process, both independently and with diverse collaborative teams (e.g., storyboard, flowchart, pseudo-code, story map).
1B-AP-14	Observe intellectual property rights and give appropriate attribution when creating or remixing programs.	1B-A-7-2	Use proper citations and document when ideas are borrowed and changed for their own use (e.g., using pictures created by others, using music created by others, remixing programming projects).
1B-AP-15	Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended.	1B-A-6-8	Analyze and debug (fix) an algorithm that includes sequencing, events, loops, conditionals, parallelism, and variables.
1B-AP-16	Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development.	1B-A-2-1	Apply collaboration strategies to support problem solving within the design cycle of a program.



3-5 Final	Level 1B	3-5 Interim	Level 1B
1B-AP-17	Describe choices made during program development using code comments, presentations, and demonstrations.		New
1B-IC-18	Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.	1B-I-7-15	Evaluate and describe the positive and negative impacts of the pervasiveness of computers and computing in daily life (e.g., downloading videos and audio files, electronic appliances, wireless Internet, mobile computing devices, GPS systems, wearable computing).
1B-IC-18	Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.	1B-I-7-16	Generate examples of how computing can affect society, and also how societal values can shape computing choices.
1B-IC-19	Brainstorm ways to improve the accessibility and usability of technology products for the diverse needs and wants of users.	1B-I-1-18	Brainstorm ways in which computing devices could be made more accessible to all users.
1B-IC-20	Seek diverse perspectives for the purpose of improving computational artifacts.	1B-I-1-17	Seek out and compare diverse perspectives, synchronously or asynchronously, to improve a project.
1B-IC-20	Seek diverse perspectives for the purpose of improving computational artifacts.	1B-D-5-12	Create a computational artifact to model the attributes and behaviors associated with a concept (e.g., solar system, life cycle of a plant).
1B-IC-21	Use public domain or creative commons media, and refrain from copying or using material created by others without permission.	1B-A-7-2	Use proper citations and document when ideas are borrowed and changed for their own use (e.g., using pictures created by others, using music created by others, remixing programming projects).



**REVERSED TABLE**

3-5 Interim	Level 1B	3-5 Final	Level 1B
1B-A-2-1	Apply collaboration strategies to support problem solving within the design cycle of a program.	1B-AP-08	Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
		1B-AP-16	Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development.
1B-A-7-2	Use proper citations and document when ideas are borrowed and changed for their own use (e.g., using pictures created by others, using music created by others, remixing programming projects).	1B-AP-12	Modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.
		1B-AP-14	Observe intellectual property rights and give appropriate attribution when creating or remixing programs.
		1B-IC-21	Use public domain or creative commons media, and refrain from copying or using material created by others without permission.
1B-A-5-3	Create a plan as part of the iterative design process, both independently and with diverse collaborative teams (e.g., storyboard, flowchart, pseudo-code, story map).	1B-AP-13	Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences.
1B-A-5-4	Construct programs, in order to solve a problem or for creative expression, that include sequencing, events, loops, conditionals, parallelism, and variables, using a block-based visual programming language or text-based language, both independently and collaboratively (e.g., pair programming).	1B-AP-10	Create programs that include sequences, events, loops, and conditionals.
1B-A-5-5	Use mathematical operations to change a value stored in a variable.	1B-AP-09	Create programs that use variables to store and modify data. Variables are used to store and modify data.
1B-A-3-6	Decompose (break down) a larger problem into smaller sub-problems, independently or in a collaborative group.	1B-AP-11	Decompose (break down) problems into smaller, manageable subproblems to facilitate the program development process.
1B-A-3-7	Construct and execute an algorithm (set of step-by-step instructions) that includes sequencing, loops, and conditionals to accomplish a task, both independently and collaboratively, with or without a computing device.	1B-AP-10	Create programs that include sequences, events, loops, and conditionals.
1B-A-6-8	Analyze and debug (fix) an algorithm that includes sequencing, events, loops,	1B-AP-15	Test and debug (identify and fix errors) a program or algorithm to ensure it



3-5 Interim	Level 1B	3-5 Final	Level 1B
	conditionals, parallelism, and variables.		runs as intended.
1B-C-7-9	Model how a computer system works. [Clarification: Only includes basic elements of a computer system, such as input, output, processor, sensors, and storage.]	1B-CS-01	Describe how internal and external parts of computing devices function to form a system.
1B-C-7-10	Use appropriate terminology in naming internal and external components of computing devices and describing their relationships, capabilities, and limitations.	1B-CS-02	Model how computer hardware and software work together as a system to accomplish tasks.
1B-C-6-11	Identify, using accurate terminology, simple hardware and software problems that may occur during use, and apply strategies for solving problems (e.g., reboot device, check for power, check network availability, close and reopen app).	1B-CS-03	Determine potential solutions to solve simple hardware and software problems using common troubleshooting strategies.
1B-D-5-12	Create a computational artifact to model the attributes and behaviors associated with a concept (e.g., solar system, life cycle of a plant).	1B-IC-20	Seek diverse perspectives for the purpose of improving computational artifacts.
1B-D-5-13	Answer a question by using a computer to (e.g., sort, total and/or average, chart, graph) and analyze data that has been collected by the class or student.	1B-DA-06	Organize and present collected data visually to highlight relationships and support a claim.
		1B-DA-07	Use data to highlight or propose cause-and-effect relationships, predict outcomes, or communicate an idea.
1B-D-4-14	Use numeric values to represent non-numeric ideas in the computer (binary, ASCII, pixel attributes such as RGB).	1B-AP-09	Create programs that use variables to store and modify data. Variables are used to store and modify data.
1B-I-7-15	Evaluate and describe the positive and negative impacts of the pervasiveness of computers and computing in daily life (e.g., downloading videos and audio files, electronic appliances, wireless Internet, mobile computing devices, GPS systems, wearable computing).	1B-IC-18	Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.
1B-I-7-16	Generate examples of how computing can affect society, and also how societal values can shape computing choices.		



3-5 Interim	Level 1B	3-5 Final	Level 1B
1B-I-1-17	Seek out and compare diverse perspectives, synchronously or asynchronously, to improve a project.	1B-IC-20	Seek diverse perspectives for the purpose of improving computational artifacts.
1B-I-1-18	Brainstorm ways in which computing devices could be made more accessible to all users.	1B-IC-19	Brainstorm ways to improve the accessibility and usability of technology products for the diverse needs and wants of users.
1B-I-1-19	Explain problems that relate to using computing devices and networks (e.g., logging out to deter others from using your account, cyberbullying, privacy of personal information, and ownership).	1B-NI-05	Discuss real-world cybersecurity problems and how personal information can be protected.
1B-N-7-20	Create examples of strong passwords, explain why strong passwords should be used, and demonstrate proper use and protection of personal passwords.	1B-NI-05	Discuss real-world cybersecurity problems and how personal information can be protected.
1B-N-4-21	Model how a device on a network sends a message from one device (sender) to another (receiver) while following specific rules.	1B-NI-04	Model how information is broken down into smaller pieces, transmitted as packets through multiple devices over networks and the Internet, and reassembled at the destination.
	New	1B-AP-17	Describe choices made during program development using code comments, presentations, and demonstrations.



### 3-5 CSTA Standards

3–5	Level 1B
1B-CS-01	Describe how internal and external parts of computing devices function to form a system.
1B-CS-02	Model how computer hardware and software work together as a system to accomplish tasks.
1B-CS-03	Determine potential solutions to solve simple hardware and software problems using common troubleshooting strategies.
1B-NI-04	Model how information is broken down into smaller pieces, transmitted as packets through multiple devices over networks and the Internet, and reassembled at the destination.
1B-NI-05	Discuss real-world cybersecurity problems and how personal information can be protected.
1B-DA-06	Organize and present collected data visually to highlight relationships and support a claim.
1B-DA-07	Use data to highlight or propose cause-and-effect relationships, predict outcomes, or communicate an idea.
1B-AP-08	Compare and refine multiple algorithms for the same task and determine which is the most appropriate.
1B-AP-09	Create programs that use variables to store and modify data. Variables are used to store and modify data.
1B-AP-10	Create programs that include sequences, events, loops, and conditionals.
1B-AP-11	Decompose (break down) problems into smaller, manageable subproblems to facilitate the program development process.
1B-AP-12	Modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.
1B-AP-13	Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences.
1B-AP-14	Observe intellectual property rights and give appropriate attribution when creating or remixing programs.
1B-AP-15	Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended.
1B-AP-16	Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development.
1B-AP-17	Describe choices made during program development using code comments, presentations, and demonstrations.
1B-IC-18	Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.
1B-IC-19	Brainstorm ways to improve the accessibility and usability of technology products for the diverse needs and wants of users.
1B-IC-20	Seek diverse perspectives for the purpose of improving computational artifacts.
1B-IC-21	Use public domain or creative commons media, and refrain from copying or using material created by others without permission.

