CSTA Standards	Grades 9–12	Mission 1	Remix 1	Mission 2	Remix 2	Mission 3	Remix 3	Mission 4	Remix 4	Mission 5	Remix 5	Mission 6	Remix 6	Mission 7	Remix 7	Mission 8	Remix 8	Mission 9	Remix 9	Mission 10	Remix 10
(1) Computing Systems –	3A-CS-01 Explain how abstractions hide the underlying implementation details of computing systems embedded in everyday objects.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3A-CS-02 Compare levels of abstraction and interactions between application software, system software, and hardware layers.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3A-CS-03 Develop guidelines that convey systematic troubleshooting strategies that others can use to identify and fix errors.																				
(2) Networks & the Internet –	3A-NI-04 Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing.																				
	3A-NI-05 Give examples to illustrate how sensitive data can be affected by malware and other attacks.																				
	3A-NI-06 Recommend security measures to address various scenarios based on factors such as efficiency, feasibility, and ethical impacts.																				
	3A-NI-07 Compare various security measures, considering tradeoffs between the usability and security of a computing system.																				
	3A-NI-08 Explain tradeoffs when selecting and implementing cybersecurity recommendations.																				
(3) Data & Analysis –	3A-DA-09 Translate between different bit representations of real-world phenomena, such as characters, numbers, and images.																				
	3A-DA-10 Evaluate the tradeoffs in how data elements are organized and where data is stored.																				
	3A-DA-11 Create interactive data visualizations using software tools to help others better understand real-world phenomena.																				
	3A-DA-12 Create computational models that represent the relationships among different elements of data collected from a phenomenon or process.																				
(4) Algorithms & Programming –	3A-AP-13 Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3A-AP-14 Use lists to simplify solutions, generalizing computational problems instead of repeatedly using simple variables.																				
	3A-AP-15 Justify the selection of specific control structures when tradeoffs involve implementation, readability, and program performance, and explain the benefits and drawbacks of choices made.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3A-AP-16 Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue by using events to initiate instructions.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3A-AP-17 Decompose problems into smaller components through systematic analysis, using constructs such as procedures, modules, and/or objects.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

CSTA Standards	Grades 9–12	Mission 1	Remix 1	Mission 2	Remix 2	Mission 3	Remix 3	Mission 4	Remix 4	Mission 5	Remix 5	Mission 6	Remix 6	Mission 7	Remix 7	Mission 8	Remix 8	Mission 9	Remix 9	Mission 10	Remix 10
	3A–AP–18 Create artifacts by using procedures within a program, combinations of data and procedures, or independent but interrelated programs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3A–AP–19 Systematically design and develop programs for broad audiences by incorporating feedback from users.		X		X		X		X		X		X		X		X		X		X
	3A–AP–20 Evaluate licenses that limit or restrict use of computational artifacts when using resources such as libraries.																				
	3A–AP–21 Evaluate and refine computational artifacts to make them more usable and accessible.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3A–AP–22 Design and develop computational artifacts working in team roles using collaborative tools.		X		X		X		X		X		X		X		X		X		X
	3A–AP–23 Document design decisions using text, graphics, presentations, and/or demonstrations in the development of complex programs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
(5) Impacts of Computing –	3A–IC–24 Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.																				
	3A–IC–25 Test and refine computational artifacts to reduce bias and equity deficits.																				
	3A–IC–26 Demonstrate ways a given algorithm applies to problems across disciplines.																				
	3A–IC–27 Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields.																				
	3A–IC–28 Explain the beneficial and harmful effects that intellectual property laws can have on innovation.																				
	3A–IC–29 Explain the privacy concerns related to the collection and generation of data through automated processes that may not be evident to users.																				
	3A–IC–30 Evaluate the social and economic implications of privacy in the context of safety, law, or ethics.																				