

	K-3	4-6	7 & 8
D1	Computers and Devices		
1.1	Use input and output devices to operate computers and other technologies	Demonstrate proficiency in using input and output devices	Identify devices that perform computational processes
1.2		Understand the impact of computers and technology on daily life	Recognize computers as devices that help people be more productive
1.3			Demonstrate an understanding of the relationship between hardware and software
1.4			Use appropriate terminology when communicating about technology
1.5		Apply troubleshoot practices to identify basic hardware and software problems	Apply troubleshoot practices to identify and solve basic hardware and software problems
1.6		Identify how computers communicate with each other across the world	Describe the components and their functions that network computers together
1.7		Analyze how humans and computers are different	Differentiate between human and computer intelligence
1.8		Recognize that computers model human behavior	Describe ways in which computers model human behavior to accomplish tasks
D2	Computational Thinking		
2.1	Use technology to solve problems	Use the basic steps in algorithmic problem solving	Use the basic steps in algorithmic problem solving to design solutions
2.2			Describe parallelization as it relates to problem solving
2.3	Use both analog and digital tools to communicate thoughts, ideas, or stories in a step-by-step manner		
2.4	Understand how to arrange information in a useful order	Define algorithm	Analyze how algorithms are used to solve problems
2.5			Use an algorithm to solve a problem
2.6	Demonstrate how 1's and 0's represent information	Demonstrate how a string of bits represent alphanumeric information	Show how data can be represented in different ways, such as text, sounds, and graphics
2.7			Use different visual representations of problems, structures, and data
2.8		Describe how a simulation can be used to solve a problem	Use models and simulations to support learning and research
2.9			Analyze the types of problems that can be solved using modeling and simulations
2.1			Evaluate the accuracy of computer models compare to the real world
2.11	Show the large problems can be made up of subproblems	List the subproblems of a larger problem	Use abstraction to deconstruct a problem into subproblems
2.12			Understand hierarchy and abstraction in computing
2.13		Understand how computer science is connected to other fields	Investigate the connections between computer science and mathematics
2.14			Show interdisciplinary applications of computational thinking
D3	Computing and Programming		
3.1	Use technology to conduct research	Use technology for self-directed learning	
3.2	Use multimedia resources to support learning	Use productivity tools to support personal productivity	Select appropriate tools and resources to support learning and personal productivity
3.3	Create multimedia products	Use digital tools for individual and collaborative writing	Select appropriate tools to design, develop, and publish individual products
3.4		Use digital tools to gather and manipulate data	Select appropriate tools to design, develop, and publish data
3.5	Arrange information using concept mapping tools	Modify data for use by a program	Analyze data that is output from a program
3.6	List a set of statements to that accomplish a simple task	Construct step-by-step instructions to accomplish a task	Understand algorithms and their uses

3.7		Show a solution to a problem using a block-based visual programming language	Show a solution to a problem using a programming language that includes looping behavior, conditional statements, logic, expressions, variables, and functions
3.8		Use devices to access remote information	Demonstrate good practices in accessing remote information
3.9	Identify jobs that use computers and technology	Identify jobs in computer and technology career fields	Identify job in computer science
D4	Collaboration		
4.1	Use technology to gather information and communicate	Use digital tools for collaborative writing and communication	Select appropriate tools to design, develop, and publish collaborative products
4.2		Use digital tools for collaborative problem solving	Select appropriate tools to collaboratively solve a problem
4.3			Synthesize collaborative practices to engage with others on a variety of activities
4.4	Use technology to work cooperatively and collaboratively with peers, teachers, and others	Identify ways to solve problems using teamwork and collaboration	Prove dispositions needed to collaborate effectively
D5	Community, Global, and Ethical Impacts		
5.1	Identify responsible digital citizenship practices	Summarize basic issues relates to the responsible use of technology and information, and the consequences inappropriate use.	Connect legal and ethical behaviors when using technology and information with the consequences of misuse
5.2		Identify the impact of technology of one's personal life and society	Compare the positive and negative impacts of technology on one's personal life and society
5.3		Assess the accuracy, relevance, appropriateness, comprehensiveness, and biases that occur in electronic information sources	Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and biases that occur in electronic information sources