Coding   2020-2021
St. Michael-Albertville Schools Map

EQ & CONTENT	SKILLS	LEARNING TARGETS	STANDARDS	ASSESSMENT	RESOURCES & TECHNOLOGY

FIRST GRADE CEQ:
 	
o **What is a program?**
o **How are algorithms used in coding?**
o **How can you use computer programming to complete a task?**
 	
SECOND GRADE, THIRD GRADE< FOURTH GRADE CEQ:
 	
o **How is computer programming useful in real life?**
o **How do you create a program?**
o **How are algorithms used in coding?**
o **How does knowledge of looping help a computer programmer?**
o **How can you use computer programming to complete a task?**
	FIRST GRADE:
	
	Explain what coding is
	
	Complete coding conceptual activities "unplugged" without using the computer
	
	Create a sequence of code
	
	Directionality
	
	SECOND GRADE:
	
	Define and write a algorithm
	
	Complete coding conceptual activities "unplugged" without using the computer
	
	Create coding loops
	
	THIRD GRADE:
	
	Explain what coding is
		FIRST GRADE:
		
		I can make the connection between plugged and unplugged activities.
		
		I can explain how algorithms are a written set of instructions to complete a task.
		
		I can demonstrate how coding is what makes computers and robots work to complete a task.
		
		SECOND GRADE:
		
		I can explain how algorithms are a written set of instructions to complete a task.
		
		I can demonstrate how coding is what makes computers and robots work to complete a task.
			ISTE: Educational Technology (2016) ISTE: All Grades
			
			1. Empowered Learner Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.
			
			Students:
			c. use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
			d. understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.
				CFA: Teacher Observation
				
				CSA: Exit Tickets
					mice
					
					unplugged walking mats Gingerbread
					
					coding sites
					  lightbot
					  code.org
					  Scratch
					  Bot logic
					
					dash
					
					ipads

	Define and write an algorithm	I can demonstrate how loops shorten algorithms and makes them easier to write and follow.	5. Computational Thinker Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.		
	Create a function using block coding.				
	FOURTH GRADE:				
	Explain coding.	**THIRD GRADE:**	**Students:**		
		I can explain how algorithms are a written set of instructions to complete a task.	**a. formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.**		
	Define algorithm and function.				
	Create a function using block coding.	I can demonstrate how conditionals determine when and how a program runs.	**d. understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.**		
		I can demonstrate how coding is what makes computers and robots work to complete a task.			
		FOURTH GRADE:	**AASL: AASL Standards Framework for Learners (2018) AASL: K-12**		
		I can demonstrate how algorithms are a written set of instructions to complete a task.	**V. EXPLORE B. CREATE Learners construct new knowledge by:**		
		I can demonstrate how coding is what makes computers and			

		robots work to complete a task. I can demonstrate how functions are code blocks that perform tasks.	**1. Problem solving through cycles of design, implementation, and reflection.** **D. GROW Learners develop through experience and reflection by:** **1. Iteratively responding to challenges.**		

Updated 5/13/2020