STEM Curriculum Map_SY24-25

Mrs. Askuvich

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
PreK	What is STEM? Using constructive play to learn: ● Cause and effect ● Spatial awareness ● Observing and describing ● Problem solving ● collaboration			
K	What is STEM? What is the Engineering Design Cycle? How can we use observations to identify a problem? How can we use the Engineering Design Cycle to help us solve problems creatively?		How can we use our understanding of properties of materials to design a solution to a problem? How can we compare and test designs to find the best design solution?	
1	What is STEM? What is the Engineering Design Cycle? How can we use observations to identify and solve problems?		How can we use our understanding of properties of materials to design a solution to a problem? How can we compare and test designs to find the best design solution?	
2		How can we use observations to identify a problem? How can we use the Engineering Design Cycle to help us solve problems creatively?		How can we use our understanding of properties of materials to design a solution to a problem? How can we compare and test designs to find the best design solution?
3		How can we use the Engineering Design Cycle to help us solve		How can we follow a set of criteria and constraints to design a solution to a

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		problems creatively? How can we follow a set of criteria and constraints to design a solution to a problem?		problem? How can we test and optimize our design to develop the best possible solution?
4	How can we use the Engineering Design Cycle to help us solve problems creatively? How can we follow a set of criteria and constraints to design a solution to a problem?		How can we follow a set of criteria and constraints to design a solution to a problem? How can we test and optimize our design to develop the best possible solution?	
5		How can we use the Engineering Design Cycle to help us solve problems creatively? How can we follow a set of criteria and constraints to design a solution to a problem?		How can we follow a set of criteria and constraints to design a solution to a problem? How can we test and optimize our design to develop the best possible solution?
6	Introduction to Computer Science ▪ Algorithms ▪ Variables ▪ Conditionals ▪ Iteration		How can we create computational artifacts? How can we test and refine computational artifacts?	
7	Introduction to Computer Science ▪ Algorithms ▪ Variables ▪ Conditionals ▪ Iteration		How can we create computational artifacts? How can we test and refine computational artifacts?	

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8			Exploring Computer Science: Describe, apply, and synthesize the following programming concepts: ▪ Algorithms ▪ Variables ▪ Conditionals ▪ Iteration ▪ Coordinate grid system ▪ Booleans ▪ Bits, bytes, and binary ▪ Radio ▪ Arrays ▪ Accelerometer