Subject:	Computer Science	**Course/Grade Level:**	Computer Programming I / 9th-12th
Focus Statement:	**This course will serve as an introduction to computer science through both visual and text-based programming environments. Students will learn how to apply computer science concepts to computer programs and build their own games and computer applications.**		

Outcome 1:

CTE.CPI.1		**Students will produce computer programs while working with a partner or team.**			
Pacing:		**Local Code:**	**Components:**	**CSTA Standards Referenced**	**Local ILT Standards Referenced**
Instruct	**Assess**		**Students will:**		
NA	NA	CTE.CPI.1.1	Demonstrate how to use file-sharing services to collaborate on a project.	CSTA.COL.L2:2-1	
NA	NA	CTE.CPI.1.2	Produce a computer program with a group or partner.	CSTA.COL.L2:2-2 CSTA.COL.L2:2-3	
NA	NA	CTE.CPI.1.3	Analyze the code of a peer and provide useful feedback.	CSTA.COL.L2:2-4	

Outcome 2:

CTE.CPI.2		**Students will use computational thinking to solve problems.**			
Pacing:		**Local Code:**	**Components:**	**CSTA Standards Referenced**	**Local ILT Standards Referenced**
Instruct	**Assess**		**Students will:**		

NA	NA	CTE.CPI.2.1	Utilize the steps of algorithmic problem solving to design solutions.	CSTA.CT.L2:2-1	
NA	NA	CTE.CPI.2.2	Evaluate the process of parallelization as it relates to problem solving.	CSTA.CT.L2:2-2	
NA	NA	CTE.CPI.2.3	Act out searching and sorting algorithms.	CSTA.CT.L2:2-3 CSTA.CT.L2:2-4 CSTA.CT.L2:2-5	
NA	NA	CTE.CPI.2.4	Analyze a sequence of instructions to be followed for efficiency.	CSTA.CT.L2:2-6	
NA	NA	CTE.CPI.2.5	Debate the best way to represent different data sets.	CSTA.CT.L2:2-7	
NA	NA	CTE.CPI.2.6	Utilize visual representations of problem states, structures, and data.	CSTA.CT.L2:2-8	
NA	NA	CTE.CPI.2.7	Debate what problems can be solved using modeling and simulation.	CSTA.CT.L2:2-9 CSTA.CT.L2:2-10	
NA	NA	CTE.CPI.2.8	Evaluate how accurately a computer model represents the real world.	CSTA.CT.L2:2-11	
NA	NA	CTE.CPI.2.9	Use abstraction to decompose a problem into subproblems.	CSTA.CT.L2:2-12 CSTA.CT.L2:2-13	
NA	NA	CTE.CPI.2.10	Demonstrate how computer science is connected to mathematics.	CSTA.CT.L2:2-14	
NA	NA	CTE.CPI.2.11	Produce examples that show how computational thinking can be use in various disciplines.	CSTA.CT.L2:2-15 CSTA.CPP.L2:2-7	

Outcome 3:

CTE.CPI.3	**Students will use programming and proper computer practices to solve problems using a computer.**

Pacing:		Local Code:	Components:	CSTA Standards Referenced	Local ILT Standards Referenced
Instruct	**Assess**		**Students will:**		
NA	NA	CTE.CPI.3.1	Select the appropriate technology tools to solve disparate problems.	CSTA.CPP.L2:2-1 CSTA.CPP.L2:2-2 CSTA.CPP.L2:2-3	
NA	NA	CTE.CPI.3.2	Implement an algorithm in a programming language.	CSTA.CPP.L2:2-4	
NA	NA	CTE.CPI.3.3	Demonstrate how to use for loops and while loops in a programming language.	CSTA.CPP.L2:2-5	
NA	NA	CTE.CPI.3.4	Demonstrate how to use conditional statements in a programming language.	CSTA.CPP.L2:2-5	
NA	NA	CTE.CPI.3.5	Demonstrate how to use variables in a programming language.	CSTA.CPP.L2:2-5	
NA	NA	CTE.CPI.3.6	Demonstrate how to use methods in a programming language.	CSTA.CPP.L2:2-5	
NA	NA	CTE.CPI.3.7	Demonstrate good practices in personal information security.	CSTA.CPP.L2:2-6	
NA	NA	CTE.CPI.3.8	Demonstrate willingness to make small changes to code to determine how the changes affect the result.	CSTA.CPP.L2:2-8	
NA	NA	CTE.CPI.3.9	Analyze data that is output from multiple runs of a computer program.	CSTA.CPP.L2:2-9	

Outcome 4:

CTE.CPI.4	**Students will demonstrate how computers and communication devices work.**

Pacing:		Local Code:	Components:	CSTA Standards Referenced	Local ILT Standards Referenced
Instruct	**Assess**		**Students will:**		
NA	NA	CTE.CPI.4.1	Identify a variety of devices that can be considered a computer.	CSTA.CCD.L2:2-1 CSTA.CCD.L2:2-2	
NA	NA	CTE.CPI.4.2	Show how hardware and software are related.	CSTA.CCD.L2:2-3	
NA	NA	CTE.CPI.4.3	Use developmentally appropriate terminology when communicating about technology.	CSTA.CCD.L2:2-4	
NA	NA	CTE.CPI.4.4	Apply strategies for identifying and solving routine hardware problems with everyday computer use.	CSTA.CCD.L2:2-5	
NA	NA	CTE.CPI.4.5	Demonstrate how the major components and functions of computer systems and networks work.	CSTA.CCD.L2:2-6	
NA	NA	CTE.CPI.4.6	Show how computers use models of intelligent behavior.	CSTA.CCD.L2:2-7 CSTA.CCD.L2:2-8	

Outcome 5:

CTE.CPI.5		**Students will analyze the impact computers have on the world and local community.**			
Pacing:		**Local Code:**	**Components:**	**CSTA Standards Referenced**	**Local ILT Standards Referenced**
Instruct	**Assess**		**Students will:**		
NA	NA	CTE.CPI.5.1	Debate the consequences of misusing technology.	CSTA.CGEI.L2:2-1 CSTA.CGEI.L2:2-3 CSTA.CGEI.L2:2-5	

NA	NA	CTE.CPI.5.2	Show how technology has changes over time and influenced different elements of society.	CSTA.CGEI.L2:2-2	
NA	NA	CTE.CPI.5.3	Evaluate the accuracy, relevance, appropriateness, and bias of electronic sources.	CSTA.CGEI.L2:2-4	
NA	NA	CTE.CPI.5.4	Predict how the unequal access to technology will affect the global economy.	CSTA.CGEI.L2:2-5	