Python with Robots (CodeBot)	Fundamentals of Computer Science Standards	Project 1: First Steps	Project 2: Time and Motion	Remix Project 2	Project 3: Animatronics	Remix Project 3	Project 4: Fence Patrol	Remix Project 4	Project 5: Line Follower	Remix Project 5	Project 6: Hot Pursuit	Remix Project 6	ADDITIONAL LESSONS	Overview	Technology	Digital Citizenship	Computer Science Careers	Web Pages	Final CS Project	OPTIONAL LESSONS	Project 7: Navigation	Remix Project 7	Project 8: All Systems Go	Remix Project 8	Project 9	Project 10
(1) Employability. The student identifies various employment opportunities in the computer science field.	(A) Identify job and internship opportunities and accompanying job duties and tasks and contact one or more companies or organizations to explore career opportunities																X									
	(B) Examine the role of certifications, resumes, and portfolios in the computer science profession																X									
	(C) Employ effective technical reading and writing skills	X	X	X	X	X	X	X	X	X	X	X							X		X	X	X	X	X	X
	(D) Employ effective verbal and non-verbal communication skills			X		X		X		X		X						X	X			X		X	X	X
	(E) Solve problems and think critically		X	X	X	X	X	X	X	X	X	X						X	X		X	X	X	X	X	X
	(F) Demonstrate leadership skills and function effectively as a team member			X		X		X		X		X							X			X		X	X	X
	(G) Demonstrate an understanding of legal and ethical responsibilities in relation to the field of computer science																X									
	(H) Demonstrate planning and time-management skills			X		X		X		X		X						X	X			X		X	X	X
	(I) Compare university computer science programs																X									
(2) Creativity and innovation. The student develops products and generates new knowledge, understanding, and skills.	(A) Investigate and explore various career opportunities within the computer science field and report findings through various media.																X	X								
	(B) Create algorithms for the solution of various problems.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(C) Discuss methods and create and publish web pages using a web-based language such as HTML, Java Script, or XML																	X								
	(D) Use generally accepted design standards for spacing, fonts and color schemes to create functional user interfaces, including static and interactive screens.																	X								
(3) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others.	(A) Seek and respond to advice or feedback from peers, educators, or professionals when evaluating problem solutions.			X		X		X		X		X										X		X	X	X
	(B) Debug and solve problems using reference materials and effective strategies.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(C) Publish information in a variety of ways such as print, monitor display, web pages, or video.			X		X	X	X	X	X	X	X			X	X	X	X	X		X	X	X	X	X	X
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms.	(A) Demonstrate the ability to insert external stand alone objects such as scripts or widgets into web pages.																	X								
	(B) Communicate an understanding of binary representation of data in computer systems, perform conversions between decimal and binary number systems, and count in binary number systems.	X	X				X	X							X											
	(C) Identify a problem's description, purpose and goals.		X	X	X	X	X	X	X	X	X	X							X		X	X	X	X	X	X
	(D) Demonstrate coding proficiency in a programming language by developing solutions that create stories, games and animations.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(E) Identify and use the appropriate data type to properly represent the data in a program problem solution.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(F) Communicate an understanding of and use variables within a programmed story, game or animation.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(G) Use arithmetic operators to create mathematical expressions, including addition, subtraction, multiplication, real division, integer division, and modulus division.				X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(H) Communicate an understanding of and use sequence within a programmed story, game or animation.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(I) Communicate an understanding of and use conditional statements within a programmed story, game or animation.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(J) Communicate an understanding of and use iteration within a programmed story, game or animation.				X	X	X	X	X	X	X	X									X	X	X	X	X	X
	(K) Use random numbers within a programmed story, game or animation.				X	X		X	X	X		X														
	(L) Test program solutions by investigating intended outcomes.		X	X	X	X	X	X	X	X	X	X									X	X	X	X	X	X
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information.	(A) Discuss privacy and copyright laws and model ethical acquisition of digital information by citing sources using established methods.															X		X								
	(B) Compare various non-copyright asset sharing options such as open source, freeware and public domain.															X										
	(C) Demonstrate proper digital etiquette and knowledge of acceptable use policies when using networks.													X		X										
	(D) Explain the value of strong passwords and virus detection and prevention for privacy and security.															X										
	(E) Discuss and give examples of the impact of computing and computing-related advancements on society													X	X	X	X	X								
	(F) Analyze how electronic media can affect the reliability of information.															X										
(6) Technology operations and concepts. The student understands	(A) Identify and explain the function of basic computer components, including a central processing unit (CPU), storage, and peripheral devices.	X					X		X		X			X	X						X				

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technology concepts, systems, and operations as they apply to computer science.	(B) Use system tools, including appropriate file management.	X	X	X	X	X	X	X	X	X	X	X		X	X						X	X	X	X	X	X
	(C) Compare different operating systems.														X											
	(D) Describe the differences between an application and an operating system.														X											
	(E) Use various input, processing, output and primary/secondary storage devices				X	X	X	X	X	X	X	X		X	X						X	X	X	X	X	X