Georgia Standards of Excellence - Computer Science/Python with Robots alignment

	Unit 1	Unit 2	Unit 3	Unit 4
Empowered Learner				
CSS.EL.6-8.1 Use technology resources to increase self-direction and self-regulation in learning, including for problem solving and collaboration (e.g., using the Internet to access online resources, edit documents collaboratively).				
Digital Citizen				
CSS.DC.6-8.2 Understand benefits and risks of digital citizenship and practices safe, responsible, legal, and ethical behavior while using technology tools and resources, especially related to personal information.				
CSS.DC.6-8.3 Explore computer science and computing-related careers.				
CSS.DC.6-8.4 Articulate ideas responsibly by observing intellectual property rights and giving appropriate attribution.				
CSS.DC.6-8.5 Understand the pervasiveness and tradeoffs of computers and computing in daily life.				
CSS.DC.6-8.6 Apply strategies for troubleshooting hardware and software problems that may occur during use.				
CSS.DC.6-8.7 Explore the relationship between computer hardware and software.				
CSS.DC.6-8.9 Investigate ways to differentiate networks and how they are used in business and industry.				
CSS.DC.6-8.10 Evaluate and provide a rationale for the levels of the Open Systems Interconnection (OSI) model.				
CSS.DC.6-8.11 Examine the basics of cybersecurity needs for business, government, and organizations.				
CSS.DC.6-8.12 Cite evidence regarding the principles of cybersecurity and basic mechanisms used for protecting data and resources.				
CSS.DC.6-8.13 Analyze and describe the characteristics of cybersecurity ethics, digital citizenship, and laws governing privacy.				
Knowledge Constructor				
CSS.KC.6-8.14 Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and biases that occur in electronic information sources.				
CSS.KC.6-8.15 Gather, manipulate, and analyze data using a variety of digital tools to identify solutions and make informed decisions.				
CSS.KC.6-8.16 Traverse online environments using critical thinking to find valid sources of information.				
CSS.KC.6-8.17 Analyze various ways to visually represent data.	■			
Innovative Designer and Creator				
CSS.IDC.6-8.18 Recognize that there may be multiple approaches to solving a problem.	■			
CSS.IDC.6-8.19 Approach problem solving iteratively, using a cyclical process.	■			
CSS.IDC.6-8.20 Design, develop, debug and implement computer programs.	■			
CSS.IDC.6-8.21 Develop a plan to create, design, and build a website with digital content to a specific target market.				
CSS.IDC.6-8.22 Design digital products that reveal a professional layout and look by applying design principles to produce professional quality digital products.				
CSS.IDC.6-8.23 Create a single functional web page using a web development platform based on a design mockup and user requirements.				
CSS.IDC.6-8.24 Develop and use a test plan to debug each new website version to ensure it runs as intended and meets the end-user requirements for a responsive site.				
CSS.IDC.6-8.25 Develop a plan to create, design, and build a game with digital content for a specific target market.				
CSS.IDC.6-8.26 Develop a visual model of a game from the Game Design Document (GDD).				
CSS.IDC.6-8.27 Create a functional game, using a game development platform, based on the storyboards, wireframes, and comprehensive layout.				
CSS.IDC.6-8.28 Develop and use a test plan to debug use each time a version of the game is released to ensure it runs as intended and meets the end-user requirements.				
CSS.IDC.6-8.29 Create digital artifacts to address a current issue requiring resolution.				
Computational Thinker				
CSS.CT.6-8.30 Identify sub-problems to consider while addressing a larger problem.	■	■	■	■
CSS.CT.6-8.31 Recognize when it is appropriate to solve a problem computationally; Make sense of computational problems and persevere in solving them.	■			

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CSS.CT.6-8.32 Develop through application, logical observations relative to computational thinking procedures to analyze and solve problems current to everyday life.				
CSS.CT.6-8.33 Utilize computational thinking to solve problems.				
CSS.CT.6-8.34 Recognize when to use the same solution for multiple problems.				
CSS.CT.6-8.35 Evaluate the storage and representation of data; Analyze how data is collected with both computational and non-computational tools and processes.				
CSS.CT.6-8.36 Understand and use the basic steps in algorithmic problem solving in computing and other authentic applications.				
CSS.CT.6-8.37 Use and compare simple coding control structures (e.g., if-then, loops).				
CSS.CT.6-8.38 Consider the purpose of computational artifacts for practical use, personal expression, and/or societal impact.				
CSS.CT.6-8.39 Test computational artifacts systematically by considering multiple scenarios and using test cases.				
CSS.CT.6-8.40 Describe how humans and machines interact to accomplish tasks that cannot be accomplished by either alone.				
Creative Communicator				
CSS.CC.6-8.41 Use online resources to participate in collaborative activities for the purpose of developing solutions or products.				
CSS.CC.6-8.42 Improve teamwork and collaboration skills: providing useful feedback, integrating feedback, understanding, and accepting multiple perspectives.				
CSS.CC.6-8.43 Collaborate productively and recognize the value of working with individuals of varying perspectives, skills, and backgrounds.				
CSS.CC.6-8.44 Demonstrate correct keyboarding techniques while increasing speed and maintaining accuracy.				
CSS.CC.6-8.45 Use productivity technology tools (e.g. word processing, spreadsheet, presentation software) for individual and collaborative writing, communication, and publishing activities.				
Global Collaborator				
CSS.GC.6-8.46 Recognize that equitable access to computing benefits society as a whole.				
CSS.GC.6-8.47 Consider others' perspectives as well as one's own perspective when developing computational solutions.				
CSS.GC.6-8.48 Consider the needs of a variety of end users regarding accessibility and usability.				
CSS.GC.6-8.49 Use software applications to collaborate and create authentic products.				