Nevada Standards Alignment with Python with Robots Curriculum

By the end of Grade 8, students who demonstrate understanding can:	Unit 1	Unit 2	Unit 3	Unit 4
Algorithms and Programming				
6-8.AP.A.1 Use flowcharts and/or pseudocode to address complex problems as algorithms.				
6-8.AP.V.1 Create clearly named variables that represent different data types and perform operations on their values.				
6-8.AP.C.1 Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.				
6-8.AP.M.1 Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs.				
6-8.AP.M.2 Create procedures with parameters to organize code and make it easier to reuse.				
6-8.AP.PD.1 Design meaningful solutions for others, incorporating data from collaborative team members and the end user, to meet the end user's needs.				
6-8.AP.PD.2 Incorporate existing code, media, and libraries into original programs, and give attribution.				
6-8.AP.PD.3 Systematically test and refine programs using a range of test cases.				
6-8.AP.PD.4 Distribute tasks and maintain a project timeline when collaboratively developing computational artifacts.				
6-8.AP.PD.5 Document programs (throughout the design, development, troubleshooting, and user experience phases) in order to make them easier to follow, test, and debug by others.				
Computing Systems				
6-8.CS.D.1 Recommend improvements to the design of computing devices based on an analysis of how users interact with the devices, noting that advantages may have disadvantages and unintended consequences.				
6-8.CS.HS.1 Design and evaluate projects that combine hardware and software components to collect and exchange data.				
6-8.CS.T.1 Systematically identify and fix problems with computing devices and their components.				
Data and Analysis				
6-8.DA.S.1 Model encoding schema used by software tools to access data, stored as bits, into forms more easily understood by people (e.g., encoding schema include binary and ASCII).				
6-8.DA.CVT.1 Collect data using computational tools and transform the data to make it more meaningful and useful.				
6-8.DA.IM.1 Refine computational models based on the reliability and validity of the data they generate.				
Impacts of Computing				
6-8.IC.C.1 Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options.				
6-8.IC.C.2 Discuss and evaluate issues of bias and accessibility in the design of existing technologies.				

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6-8.IC.SI.1 Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact.				
6-8.IC.SLE.1 Identify risks associated with sharing information digitally (e.g., phishing, identity theft, hacking).				
6-8.IC.SLE.2 Evaluate how legal and ethical issues shape computing practices.				
Networks & the Internet				
6-8.NI.NCO.1 Compare and contrast modeled protocols used in transmitting data across networks and the Internet.				
6-8.NI.C.1 Explain how physical and digital security measures protect electronic information.				
6-8.NI.C.2 Apply multiple methods of encryption to model the secure transmission of information.				