

Arkansas CS Standards Alignment with Python with Robots Curriculum

THE GOAL FOR EACH STUDENT IS PROFICIENCY IN ALL REQUIREMENTS AT CURRENT AND PREVIOUS GRADES.	Unit 1	Unit 2	Unit 3	Unit 4
Computational Thinking and Problem Solving				
CT.1.6.1 Select basic steps to solve algorithmic problems.				
CT.2.6.2 Discuss binary numbers, logic, sets, and functions and their application to computer science.				
CT.2.6.3 Describe events as subsets of a sample set identifying unions, intersections, and complements (e.g., describing information sorted with a Venn diagram).				
CT.2.6.4 Select variables that appropriately represent data.				
CT.3.6.1 Analyze appropriate collaborative behaviors (e.g., providing useful feedback, integrating feedback, understanding and accepting multiple perspectives, using socialization) to solve problems .				
Data and Information				
D.4.6.1 Represent a variety of data in multiple formats.				
D.4.6.2 Discuss how and why binary is used to represent data in a computer.				
D.5.6.1 Collect data using a variety of tools (e.g., analog, digital).				
D.5.6.2 Describe the characteristics (e.g., collection environment, units of measure, input method) of the collected data.				
D.5.6.3 Evaluate the most effective ways to collect, arrange, and visually represent data.				
D.6.5.1 Explore various models and simulations (e.g., ecosystems, epidemics, molecular dynamics) to support learning and research.				
D.6.6.1 Compare various problems that can be solved using modeling and simulation.				
Algorithms and Programs				
A.7.6.1 Create algorithms to solve problems and evaluate their effectiveness.				
A.7.6.2 Compare and contrast algorithms of appropriate complexity.				
A.7.6.3 Identify and correct errors within multiple algorithms.				
A.7.6.4 Design and test algorithms of appropriate complexity collaboratively.				
A.8.6.1 Use a visual block-based and/or textbased programming language programming language individually and collaboratively to solve problems of increasing complexity.				
Computers and Communications				
CC.9.6.1 Investigate a career that requires computing and technology.				
CC.9.6.2 Identify what distinguishes humans from machines focusing on human intelligence versus machine intelligence (e.g., robot motion, speech and language understanding, and computer vision).				
CC.10.6.1 Demonstrate an appropriate level of proficiency with keyboards and other input/output devices (e.g., printer, student response systems, texting/instant messaging, voice assist).				
CC.10.6.2 Recognize the expense of the equipment, how care and protection of the computers can prolong use and save the cost of purchasing new equipment, therefore benefiting all students.				
CC.10.6.3 Demonstrate touch typing techniques while increasing speed and maintaining accuracy.				
CC.10.6.4 Practice proper keyboarding technique: posture, elbows down, and body centered in front of keyboard.				
CC.11.6.1 Apply productivity/multimedia tools to support communication throughout the curriculum.				
CC.11.6.2 Describe how information can be transmitted by many computing devices via a network.				
CC.11.6.4 Apply strategies for solving simple hardware and software problems that may occur during use.				
Community, Global, and Ethical Impacts				
GCE.12.6.1 Demonstrate an understanding of positive and negative impact of technology (e.g., mobile computing and communication, web technologies, digital security, virtualization) on the daily life of individuals and society.				
GCE.12.6.2 Discuss the difference between appropriate, legal, and ethical uses of technology.				
GCE.12.6.3 Demonstrate an understanding of the credibility, bias, accuracy, relevance, age appropriateness, and comprehensiveness of electronic information sources.				
GCE.12.6.4 Demonstrate ethical uses in copyright, fair use, and intellectual property in various media (e.g., music, graphics, video, etc.).				
GCE.12.6.5 Demonstrate an understanding of the impact of access to computing resources.				