Computer Science Content Alignment Planning
First Grade

Integrating the K5 Computer Science Standards Across the Curriculum @ L L Beazley
2019 - 2020

VDOE Computer Science Page	All K – 12th CS Standards PDF	CS SOL Curriculum Framework Draft PDF

Algorithms and Programming

CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.1 The student will construct sets of step-by-step instructions (algorithms) either independently or collaboratively, including a) sequencing (including ordinal numbers) and; b) simple loops (patterns and repetition).			
CS Standard	**Related Core Content Area Standard**	**How could you integrate the CS Standard?**	**Tools needed to integrate CS standards?**
1.2 The student will construct programs to accomplish tasks as a means of creative expression using a block based programming language or unplugged activities, either independently or collaboratively including a) sequencing, ordinal numbers; and b) simple loops (patterns and repetition).			
CS Standard	**Related Core Content Area Standard**	**How could you integrate the CS Standard?**	**Tools needed to integrate CS standards?**
1.3 The student will analyze, correct, and improve (debug) an algorithm that includes sequencing.			

CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.4 The student will plan and create a design document to illustrate thoughts, ideas, and stories in a sequential (step-by-step) manner (e.g., story map, storyboard, sequential graphic organizer).			
CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.5 The student will categorize a group of items based on one or two attributes or the actions of each item, with or without a computing device. [Related SOL: Science 1.1c, Math 1.13]			
CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.6 The student will acknowledge that materials are created by others (e.g., author, illustrator).			

Computing Systems			
CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.7 The student will identify components of computing systems that are common among different types of computing devices including desktop and laptop computers, tablets, and mobile phones.			
CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.8 The student will identify, using accurate terminology, simple hardware and software problems that may occur during use (e.g., app or program is not working as expected, no sound is coming from the device, the device won't turn on).			

Cybersecurity			
CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.9 The student will describe what is allowed and what is not allowed at school associated with the use of technology.			
CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.10 The student will identify and use strong passwords, explain why strong passwords should be used (e.g., protect name, address, and telephone number).			
Data and Analysis			
CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.11 The student will identify and interpret data and organize it in a chart or graph in order to make a prediction, with or without a computing device. [Related SOL: HSS 1.1c]			

Impacts of Computing

CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.12 The student will identify and explain responsible behaviors associated with using information and technology. [Related SOL: HSS 1.10]			

Networking and the Internet

CS Standard	Related Core Content Area Standard	How could you integrate the CS Standard?	Tools needed to integrate CS standards?
1.13 The student will, in a whole class environment, discuss how information can be communicated electronically (e.g., email, social media).			