Computer Science Teachers Association (CSTA)

Standards Alignment

The CSTA K–12 Computer Science Standards, released in 2017, delineate a core set of learning objectives designed to provide the foundation for a complete computer science curriculum and its implementation at the K–12 level.

The following tables highlight how Kid Spark curriculum is aligned to CSTA standards.

Grade Level	Unit of Instruction	CSTA Standards, Concepts, and Subconcepts
2 - 5	Robotics & Coding 101	**1B-CS-01** Describe how internal and external parts of computing devices function to form a system. **1B-CS-02** Model how computer hardware and software work together as a system to accomplish tasks. **1B-AP-10** Create programs that include sequences, events, loops, and conditionals. **1B-AP-13** Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences. **Concepts**: Computing Systems, Algorithms & Programming **Subconcepts**: Devices, Hardware & Software, Control, Program Development
2 - 5	Exploring Sensors	**1B-CS-01** Describe how internal and external parts of computing devices function to form a system. **1B-AP-10** Create programs that include sequences, events, loops, and conditionals. **1B-AP-17** Describe choices made during program development using code comments, presentations, and demonstrations. **Concepts**: Computing Systems, Algorithms & Programming **Subconcepts**: Devices, Control, Program Development
6 - 8	Loops & Variables	**1B-AP-10** Create programs that include sequences, events, loops, and conditionals. **2-AP-11** Create clearly named variables that represent different data types and perform operations on their values. **2-AP-12** Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.

Grade Level	Unit of Instruction	CSTA Standards, Concepts, and Subconcepts
6 - 8	Loops & Variables	**1B-AP-13** Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences. **Concepts**: Algorithms & Programming **Subconcepts**: Control, Variables, Program Development
6 - 8	Integrated Engineering Challenges	**1A-CS-01** Describe how internal and external parts of computing devices function to form a system. **1B-CS-02** Model how computer hardware and software work together as a system to accomplish tasks. **1B-AP-08** Compare and refine multiple algorithms for the same task and determine which is the most appropriate. **1B-AP-10** Create programs that include sequences, events, loops, and conditionals. **1B-AP-13** Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences. **2-AP-11** Create clearly named variables that represent different data types and perform operations on their values. **2-AP-12** Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals. **Concepts**: Computing Systems, Algorithms & Programming **Subconcepts**: Devices, Hardware & Software, Troubleshooting, Algorithms, Variables, Control, Program Development

Click here to view CSTA Standards.