

CSTA Student Standards

View the [K-12 CSTA Standards](#) and [CSTA Standards Progression Chart](#).

Game Controller Kit - Summary

Mission	Lighthouse	Frog Frenzy	Game Controller	Mini-Games	Minecraft Controller
Key Skills & Competencies	Build a game controller and circuit with 3 LEDs, Use variables and else-if statements to program the controller to light LEDs and play sounds	Build a game controller and circuit; program a console game using multiple functions and variables, a score, and x,y coordinates	Build a game controller and circuit; create a program that maps keyboard and mouse buttons to the controller; Use functions, conditionals, booleans, and loops	Test the game controller from the previous mission by playing a variety of classic arcade mini games	Map the game controller to the keyboard buttons used to play Minecraft.
Vocabulary	Shift register, bit, byte, comparison operators, else-if statements	Shift register, bit, byte, console, variables, functions, horizontal position, vertical position	Functions, if-else, true/false values, loops, variables		
Build Difficulty	Intermediate	Beginner	Beginner		
Code Difficulty	Intermediate	Advanced	Advanced		

GAME CONTROLLER KIT - CSTA LEVEL 1B (Grades 3-5) ALIGNMENT

Mission	Lighthouse	Frog Frenzy	Game Controller	Mini-Games	Minecraft Controller
<i>Computing Systems</i>					
Devices in a system 1B-CS-01	✓	✓	✓		✓
Hardware & software 1B-CS-02	✓	✓	✓	✓	✓
Troubleshooting 1B-CS-03	✓	✓	✓	✓	✓
<i>Algorithms & Programming</i>					
Variables 1B-AP-09	✓	✓	✓		
Sequence, loops, conditionals 1B-AP-10	✓	✓	✓		
Decomposition 1B-AP-11	✓	✓	✓		
Modify & remix programs 1B-AP-12					✓
Test & debug 1B-AP-15	✓	✓	✓	✓	✓

Note: There are 21 CSTA standards in Level 1B. For better readability, the standards in the table show only the standards covered by the Game Controller Kit.

GAME CONTROLLER KIT - CSTA LEVEL 2 (Grades 6-8) ALIGNMENT

Mission	Lighthouse	Frog Frenzy	Game Controller	Mini-Games	Minecraft Controller
<i>Computing Systems</i>					
Hardware & software 2-CS-02	✓	✓	✓	✓	✓
Troubleshooting 2-CS-03	✓	✓	✓	✓	✓
<i>Algorithms & Programming</i>					
Variables 2-AP-11	✓	✓	✓		
Compound conditionals 2-AP-12	✓	✓	✓		
Decomposition 2-AP-13	✓	✓	✓		
Functions 2-AP-14		✓	✓		
Remix & attribute 2-AP-16					✓

Note: There are 23 CSTA standards in Level 2. For better readability, the standards in the table show only the standards covered by the Game Controller Kit.