

CSTA Student Standards

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

Base Station Kit - Summary

Mission	Getting Started	Blink	Traffic Light	Reaction Game	Silly Stories	Tally	Guess My Number	Speak Like a Machine	Speech Command	Pose Detect
Key Skills	Set up a microcontroller; Complete a basic circuit	Program an LED light to blink; Use a loop to repeat the program	Build a circuit with 3 LEDs; Program LEDs to light up sequentially within a loop	Create a circuit with an LED and 2 buttons; Use buttons as an input ; Program a function with a variable	Write a program with multiple variables that returns user input as strings.	Build a circuit with a button input; Add a count to a variable each time a button is pressed; Use nested loops	Program with loops, conditionals, and comparison operators to compare user input to a random value; Convert data types	Build and code a binary machine that converts binary to decimals; use a list in code	Program with loops, conditionals, and variables to use the microphone to recognize a set of commands and turn LED lights on or off	Steer a spaceship by moving your face, write a program with pose detection and multiple functions
Vocabulary	circuit, input, output, microcontroller, GPIO pin	Circuit, Input, LED, loops, anode, cathode printed circuit board, breadboard, power, ground, resistor, current	LED, power, ground, while loop, Boolean	LED, anode, cathode, current, input, function, variable, random	Variable, console	Variable, console, loop, comparison operators, conditionals	Variable, random, console, text and number data, loops	Binary, decimal, ground, functions, variable, lists, loops, feedback	Sensor, perception, artificial intelligence, model, variable, percent confidence	Lists, variables, function, artificial intelligence, model, training, machine learning
Build Difficulty	Beginner	Beginner	Intermediate	Intermediate	N/A	Beginner	N/A	Beginner	Intermediate	Intermediate
Code Difficulty	Beginner	Beginner	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Advanced	Intermediate	Advanced

Base Station - CSTA LEVEL 1B (Grades 3-5) ALIGNMENT

Mission	Getting Started	Blink	Traffic Light	Reaction Game	Silly Stories	Tally	Guess My Number	Speak Like a Machine	Speech Command	Pose Detect
<i>Computing Systems</i>										
Devices in a system 1B-CS-01	✓	✓	✓	✓		✓		✓	✓	✓
Hardware & software 1B-CS-02	✓	✓	✓	✓		✓		✓	✓	✓
Troubleshooting 1B-CS-03	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>Data & Analysis</i>										
Use data to predict 1B-DA-07									✓	✓
<i>Algorithms & Programming</i>										
Variables 1B-AP-09			✓	✓	✓	✓	✓	✓	✓	✓
Sequence, loops, conditionals 1B-AP-10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Decomposition 1B-AP-11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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 Base Station Kit.

Base Station Kit - CSTA LEVEL 2 (Grades 6-8) ALIGNMENT

Mission	Getting Started	Blink	Traffic Light	Reaction Game	Silly Stories	Tally	Guess My Number	Speak Like a Machine	Speech Command	Pose Detect
<i>Computing Systems</i>										
Hardware & software 2-CS-02	✓	✓	✓	✓		✓		✓	✓	✓
Troubleshooting 2-CS-03	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>Data & Analysis</i>										
Data encoding 2-DA-07								✓		✓
Transform data 2-DA-08								✓	✓	✓
Refine models 2-DA-09									✓	✓
<i>Algorithms & Programming</i>										
Variables 2-AP-11				✓	✓	✓	✓	✓	✓	✓
Compound conditionals 2-AP-12				✓		✓	✓	✓	✓	✓
Decomposition 2-AP-13	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Functions 2-AP-14				✓				✓		✓

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