ISTE Student Standards

View the 28 [ISTE Student Standards](#) in their entirety and accompanying explanation videos.

1.1   Empowered Learner

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

1.2   Digital Citizen

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.

1.3   Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

1.4   Innovative Designer

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.

1.5   Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

1.6   Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

1.7   Global Collaborator

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

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 - ISTE STANDARDS ALIGNMENT

Mission	Lighthouse	Frog Frenzy	Game Controller	Mini-Games	Minecraft Controller
Empowered Learner					
Feedback to Improve Practice 1.1.c	✔	✔	✔		
Technology Operations 1.1.d	✔	✔	✔	✔	✔
Knowledge Constructor					
Real-World Issues 1.3.d			✔		
Innovative Designer					
Prototypes 1.4.c					✔
Computational Thinker					
Decomposition 1.5.c	✔	✔	✔		
Algorithmic Thinking 1.5.d	✔	✔	✔		
Global Collaborator					
Project Teams 1.7.c	?	?	?	?	?

Note: There are 28 ISTE standards. For better readability, the standards in the table show only the standards covered by the Game Controller Kit.