

LCS Mini Innovation Grant

Makey Makey STEM Kits

Makey Makey STEM Kits

Makey Makeys are an invention kit designed to connect everyday objects to computer keys. Using a circuit board, alligator clips, and a USB cable, the device uses closed loop electrical signals to send the computer either a keyboard stroke or mouse click signal.

The creations with Makey Makey are endless. Simply alligator clip to an object. When you touch that object, the computer thinks you're pressing the keyboard. By mimicking a keyboard and mouse the Makey Makey lets you control any computer program with everyday objects.



Outcomes

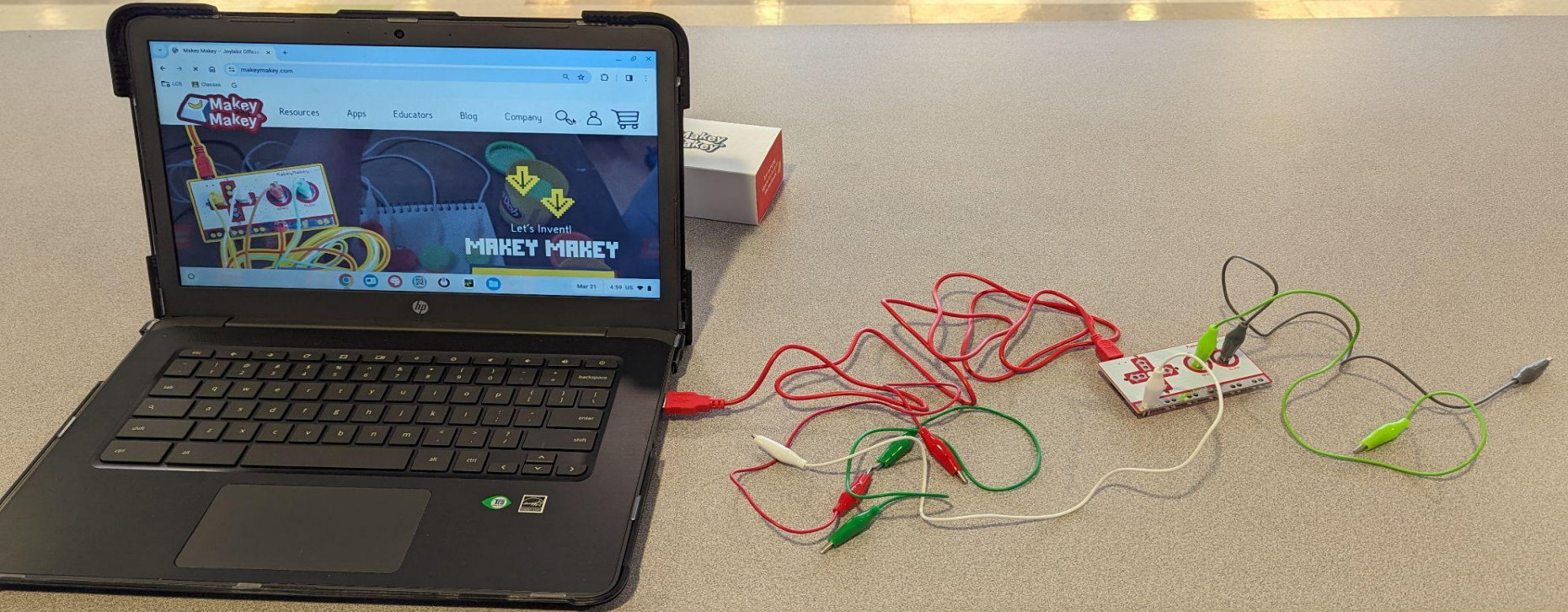
My initial idea for the Makey Makey kits that were ordered with this grant was to create a staircase piano for our school-wide Interactive Learning Night. Each Makey Makey kit would be wired to a step on the main staircase and that step would correspond to a particular key on the piano. Students would then be able to play a simple song by stepping on various steps, skipping steps, etc. After some thought, I decided not to use the Makey Makey kits this way due to the volume of students and their families who would be in attendance at the event.

I then refined my idea for Interactive Learning Night and decided to use the Makey Makey kits to:

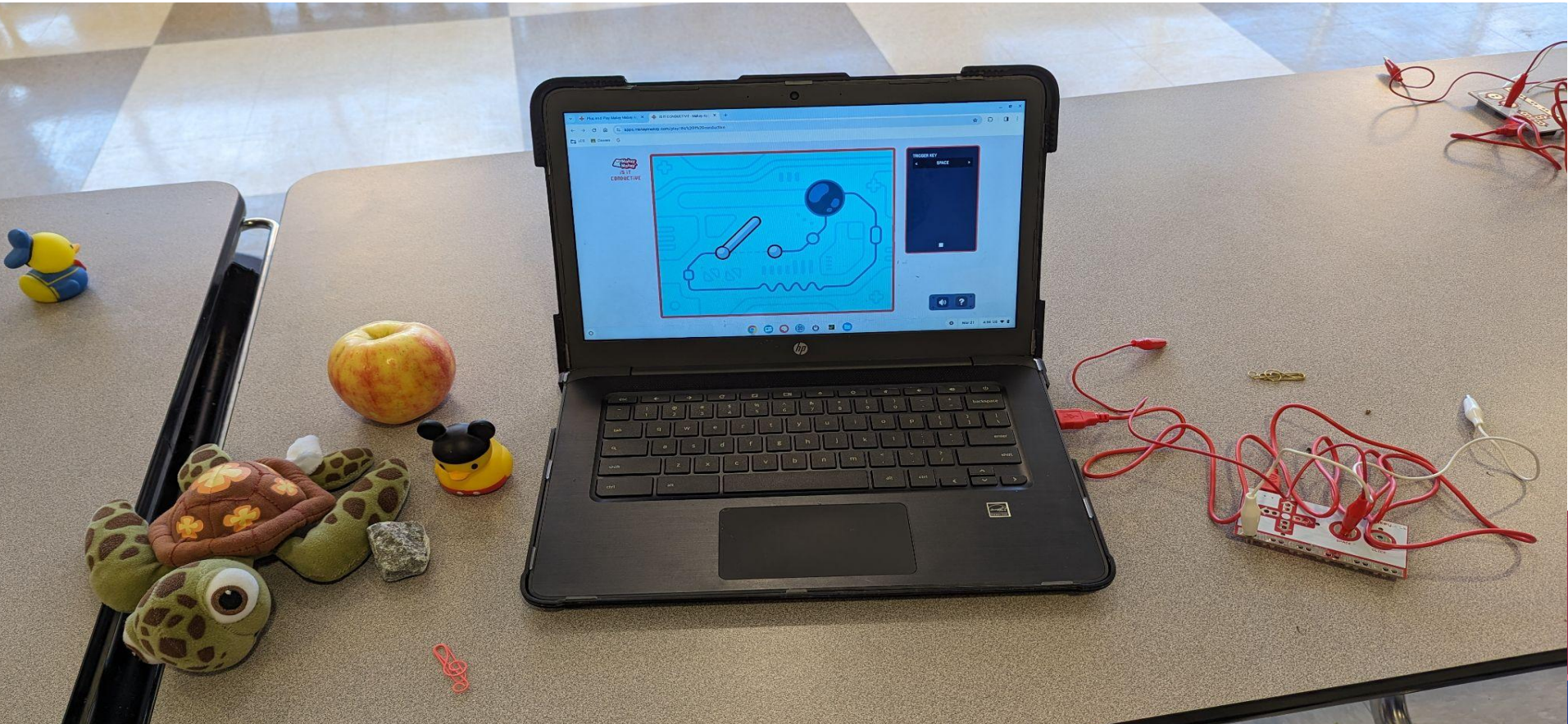
1. Introduce students to what it takes to complete an electrical circuit
2. Identify objects that are/are not good conductors
3. Create a piano by using bananas
4. Create a piano out of water- using different colors to represent the various keys



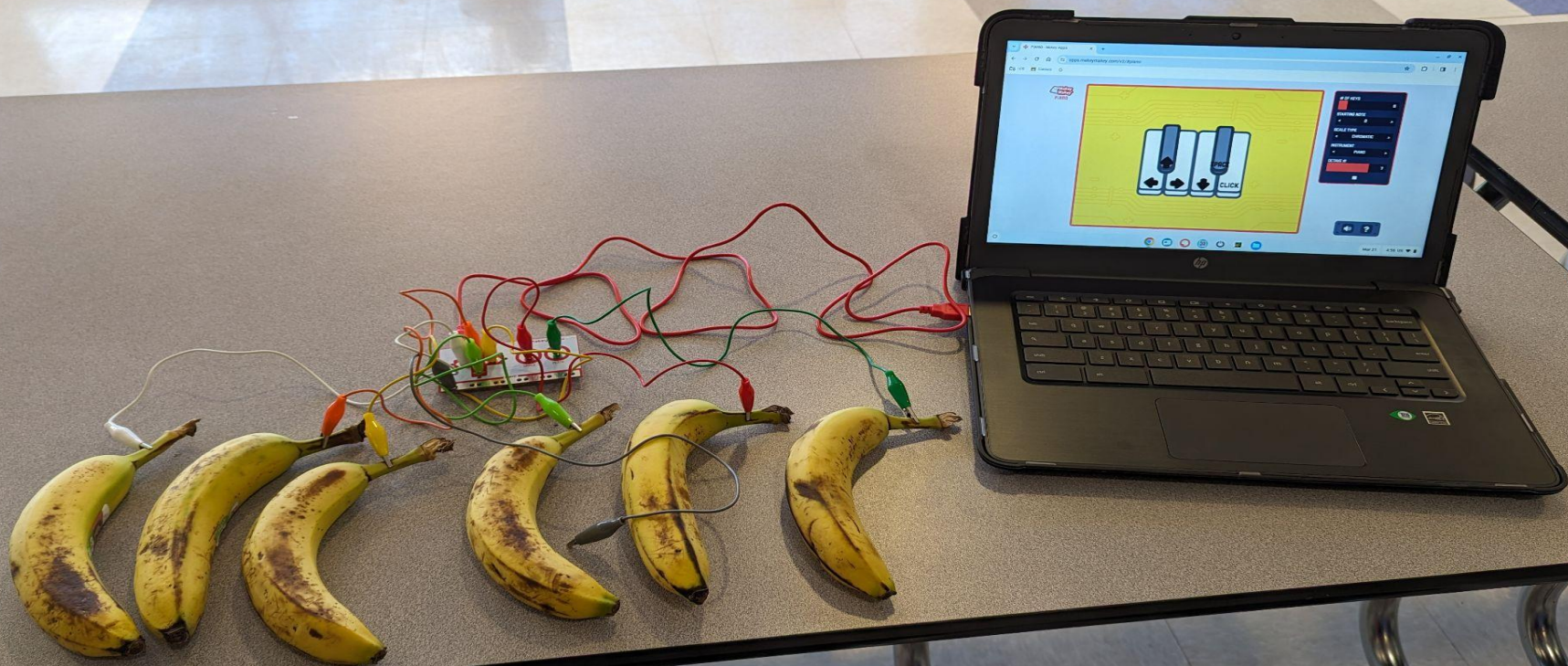
How to Make a Circuit Station



Is it Conductive Station



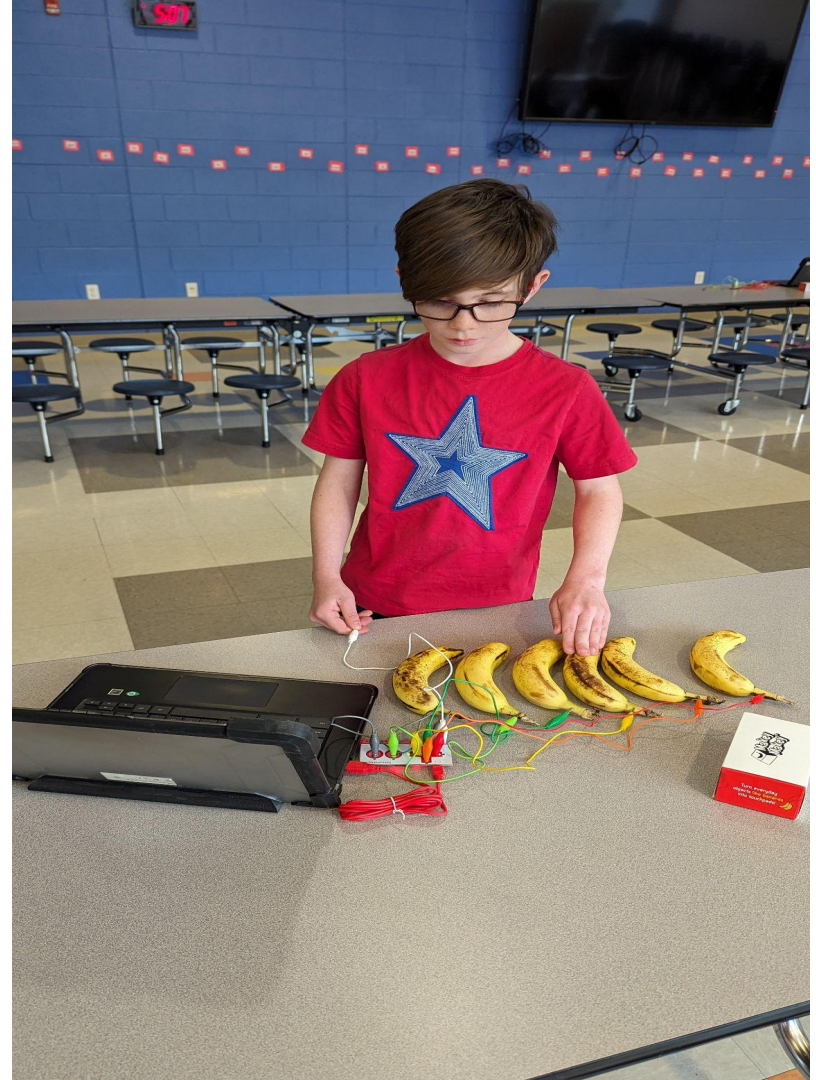
Banana Piano Station



Water Piano Station



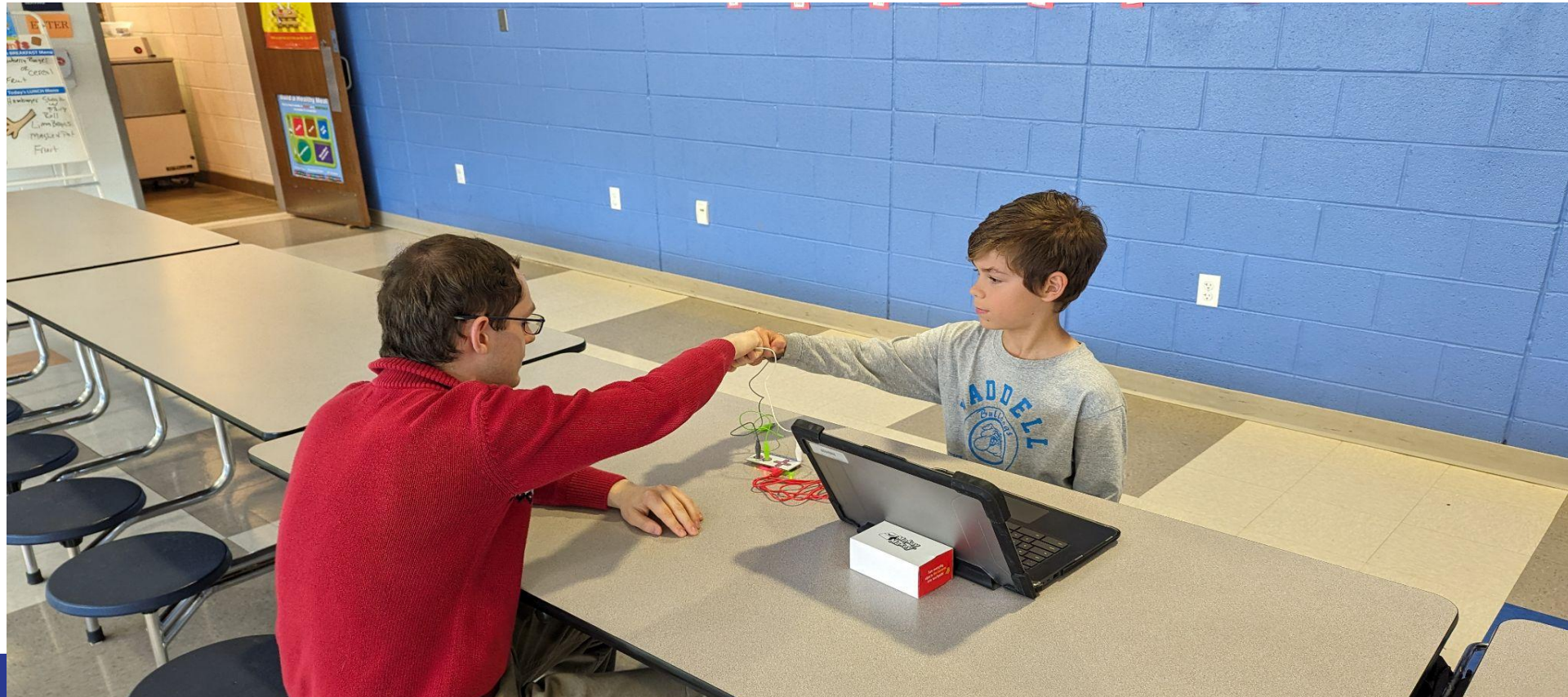
Lee Crance, a Waddell 4th grader, plays
"Ode to Joy" on the banana piano.



Mrs. Snyder, Waddell's PE teacher, assists students in discovering if objects are conductors or not.



Jordan Rader, a 2020 RCHS graduate and current mechatronics major at Virginia Western, fist bumps Waddell 2nd grader, Tyler Garcia to complete a circuit.



Mrs. Straub, Waddell's K-2 art teacher and intervention specialist, assists students experimenting with the water piano.

