

# Mary Had a Makey Makey

Mike and I have introduced the use of Makey Makey's as a way for students to get very creative to show what they know about a subject. Music and Makey Makeys are an awesome way to grab students attention, learn a little about circuitry, be creative with their learning, and have fun doing it!

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**Grade:** 3-5, 6-8, 9-12

**Subject(s):** ELA, MATH, SCIENCE, SOCIAL STUDIES, CTE, ARTS

**Shared By:** Vickie Perryman

**Building:** John Tuck Elementary

**ITSE Standards:** Creative Communicator, Innovative Designer

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## Activity Description:

Students will learn how to turn their keyboard into a piano by way of a Makey Makey, Scratch, and some interesting conductive material.

## Materials:

Makey Makey (1 per pair)

Mary Had a Little Lamb music sheet

simple conductive material - aluminum, paper clips, pennies, washers, play doe, fruit, potatoes

## Required Technology:

Chromebook (1 per pair)

## Instructional Plan:

1. Introduce Makey Makey's with the following video: <https://bit.ly/1tYQmMP>
2. Have students identify items that were used to turn the keyboard into a musical instrument via the makey makey.
3. Have students watch the video on how to connect: <https://bit.ly/2waaTJ6>
4. Bring a few students up to the front of the room to demonstrate basic components to make a complete circuit (Power source - computer; wire - to connect other resistors; connected

back to the power source) If students stand in a circle, holding hands, this shows a complete circuit, while not holding a hand, breaks the circuit and power is lost.

5. Re-emphasize the importance of having an Earth wire always connected to your complete circuit.

6. Remind students about using the human body as part of the circuit (and to play the music)!

7. Have students open up the Scratch program (this one is specially coded for a makey makey piano): <https://bit.ly/1TjjFX4>

8. Once students connect the Makey Makey to their chromebook, they can start exploring how they can turn it into a piano with the wires and conductive materials.

9. Once students construct a "piano" with the variety of material, give students the music notes to play Mary Had a Little Lamb: <https://bit.ly/2Kz2aTE>

10. Get your camera ready as they are very proud when they actually finish their working piano and can play a familiar tune!

### Teacher Tips:

1. Students forget to have Earth as part of their complete circuit.

2. Students also forget that they are very conductive and need to be part of the circuit when ready to play their music.

3. Older students can explore other material to use (what is conductive and what is not?)

4. Once students get the hang of it, Scratch has other virtual musical instruments they can transform the Makey Makey into (guitar, saxophone, drums, etc...). They can even remix the Scratch programs and create their own interesting sounds.

### Teacher Resources:

1. <https://scratch.mit.edu/> has the virtual piano: Quick link - <https://bit.ly/1TjjFX4>

2. Video introducing Makey Makey: <https://bit.ly/1tYQmMP>

3. Video showing how Makey Makey works: <https://bit.ly/2waaTJ6>

4. Mary Had a Little Lamb music notes: <https://bit.ly/2Kz2aTE>

5. Example Slide Deck:

<https://docs.google.com/presentation/d/1sL2GgKsz4nxT1sabhxwF88SEKZ9gKB-izTnSsrQogWo/edit?usp=sharing>

### Activity Pictures/Videos:

Video Example: <https://bit.ly/2JTPFky>

Picture: <https://bit.ly/2jscIYu>