PUTTING THE "A" in STEAM

Learning Target OR Standards & Connections

- ISTE 4b Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
- ISTE 4c Students develop, test and refine prototypes as part of a cyclical design process.

Essential Outcomes(s)	Level(s)
Students will... • Use and app smash digital tools, Soundtrap, Makey Makey, and Scratch, for a storytelling project. • Audio record and produce a Soundtrap project • Use block coding on Scratch to enhance the audio story and connect Makey Makey to bring the project off the screen	Secondary

Activity/Project

1. Students will brainstorm and develop a TED-talk style project to present- either on a topic of their choice or class content
2. Students will draft their story/script and record on Soundtrap. Students can add background music and sound effects to enhance their project
3. They will then go to Scratch and import their audio recording into the Sounds tab on the top left and add code that will play the audio. Students will then code a visual aspect to the story, making sure to use "When (space, down, up, left, or right) is pressed" events.
4. Once they have created their code, students will use conductive material (pencil lead, aluminum foil, binder clips, some food items, liquids, plants, or even slime) to connect to the Makey Makey inputs.
5. Students will then connect the Makey Makey to their computer.
6. Now when they press on the conductive material, the corresponding Makey Makey input will play the Scratch project.

Extended Learning

1. For Step # 4, the teacher can set up a science experiment to see which items are conductive. Students will hypothesize whether an item is conductive or not, and then test on the Makey Makey. Feel free to use this slideshow

The author of this is Serena Robinett. Serena Robinett was an educator for New York City DOE before she became an Education Specialist at Soundtrap. She was the Instrument Music Director at a middle school in Queens where her students learned music literacy, music history and participated in various ensembles like modern rock band, symphonic orchestra, and digital music. Serena then taught technology at a K-8 school in Harlem for two years. Her students learned to use technological applications to share their voices and knowledge. They also learned to be digital citizens and computational thinkers. Serena is focused on the importance of cultivating and sharing student voices, building trusting relationships, and creating a culturally responsive classroom.