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Makey Makeys work with conductive materials and a complete series circuit. Conductive Materials can carry electricity, such as aluminum foil or plants. A list of materials that work well with students can be found at the bottom. With younger students, you should explain circuits with Kinesthetic Motions and borrow one of the light bulb circuit sets from 4th grade Science.

My Teaching Process with K-3

6 laptops & 6 Makey Makey sets, students in groups

1. Watch Makey Makey Video and Instrument Examples
   https://www.youtube.com/watch?v=rfQqh7iCcOU
   https://www.youtube.com/watch?v=wkPt9MYqDW0
2. All students open hands, "This is open circuit." All students clasp above head, "This is closed circuit. We need to make open circuits that we can close with our bodies.
3. Show light bulb circuit example if available. Open www.makeymakey.com/piano and show keys on computer playing. Explain that the computer will think that the Makey is another computer keyboard. To make a CLOSED circuit, we need to touch the EARTH and a BUTTON. Touch the button without EARTH, "This is open circuit. Touch EARTH (ding!), "This is closed." And it will play the note. Show the others.
4. Add an alligator clip to EARTH and a button. "We humans are conductive. We can carry electricity. Can anyone think of something else that might be conductive?" A good connection is water in pools and having to get out during lightning storms and items they saw work in the videos. "Alligator clips are conductive, but they are also wrapped in plastic. If I touch the shiny metal (ding!) it's a closed circuit. If I touch the plastic, the circuit is still open. Plastic is not conductive."
5. Invite a student to hold button alligator clip metal while I hold the EARTH. "Give me a high five!" (ding!) Because we are conductive and carry electricity, we can close a circuit. Attach all and make a high five piano with EARTH as the piano player.
6. Students hook up all the Makey Makey Alligator Clips as I log on laptops and websites. I give a laptop after all wires are plugged in. I don't care about the colors except black. ALWAYS MAKE BLACK THE EARTH. It just makes it easy to remind and problem solve.
7. In Groups: High Five Piano, Aluminum Foil Piano, Play-Doh Piano, Space Invaders if time allows. Close with another instrument video after clean up.

My Teaching Process with 4+

Similar to above, but older students can log on laptops and manage websites. We talk about conductors and insulators. We create group circuits by holding hands and try to play games and piano on different sides of the room. We create larger floor pads with aluminum foil. I leave them to problem solve their circuit issues.

PRO TIPS Have a few students become "Makey Masters," by coming in 10 minutes outside class or in class before using Makey. Have them problem solve hooking up and website stuff. Make things go wrong like unplugging the USB, switch a clip, and complain an issue to them like a Kindergartener. Let them know where to exchange the alligator clips if one breaks (and they will so buy an extra package). Having Makey Masters that can help out students lets you document, talk with kids about their experiences, and problem solve more involved issues.

PRO TIPS Use a tray per makey set. It will make it easy to manage, stack, and distribute.

PRO TIPS Ensure collaboration and sharing by having an experience day to learn about the Makeys before making projects and stress that the students will use the Makeys in the future as well.

Conductive Materials for the Classroom

- Aluminum Foil
- Armature Wire
- Pencil Graphite
- Play-Doh & Salt Clay Recipes
- Copper and Foil Tape
- Breadboard Wires
- Alligator Clips
- Fruit & Vegtables
- Plants (Not Dried)
- Anything Wet (Water NOT recommended for younger students)
- Powdered Graphite with Acrylic Paint

Project Ideas for the Classroom

- Video Game Controller
- Musical Instruments
- Room or Floor Controller or Instrument
- Talking Masks
- Talking Cities
- Alluminum Foil Wrapped Legos
- Storytime
- Sound Mixers and Sound Boards