Musical Fruit Lesson Plan

Amount of time Demo takes: 3 mins.
Try this at home!

Materials
- Makey Makey kit (7 alligator clips, 1 USB cord, 1 circuit board, 6 wires)
- Chromebook or other laptop - Need electricity
- Firm fruits or vegetables (6+)
- Tin Foil

Set-up Instructions
1. Go to http://www.makeymakey.com/howto.php and read the set up instructions. There are links at the bottom of the page for games you can hook the circuit up to.
   - I suggest the piano because it is easy to setup and fun for participants. (Set-up below)

SAFETY!
- Participants may accidentally pinch themselves with alligator clips.

Lesson’s Big Idea
- Completing the circuit
- Conductivity

Background Information
● The circuit board allows us to use unconventional keys to play games/music on a computer by completing a circuit.

**Instructional Procedure**

1. Turn the laptop on and sign in. Open an internet browser and go to http://www.makeymakey.com/howto.php
2. Choose the game that you want to set the circuit board up for.
3. Clip the alligator clips to the “buttons” and to the circuit board in the appropriate key areas.
   a. Make sure that you have one clipped to the ground (Earth). This one needs to be touching the person playing the music at all times or it won’t work.
4. Play music and games!
5. There is an extra Makey Makey kit in case you need more wires or parts.
6. If the fruit or tin foil are not working you can hook the cables up to the board and then have participants hold the other ends and use the participants as buttons.

**Assessment/sample questions you can ask**

1. Why does the fruit play music?
2. Why won’t it work if you are not holding the ground cable?

**Clean Up**

● Wipe the fruit off of the alligator clips and clean them with antibacterial wipes
● Put all the cords back in the Makey Makey box

**References**

● http://www.makeymakey.com/

**Next Generation Science Standards**

● K-5
  ○ 1-PS4-4
  ○ K-2-ETS1
  ○ 4-PS3-2/4