

Carousel Homework

This homework is a two-part assignment

a. **PART 1:**

Within Part 1 you have three options:

1. Option 1: Learn more about sound wave interference and how speakers work
 - a. Play around with an interactive simulator that models two speakers interfering with one another. Technically, it should be possible to play sounds from two speakers and have one cancel the sound of the other out at a particular position in the room.
 - b. You will download this link:
<http://ccl.northwestern.edu/netlogo/models/Speakers>).
 - c. Homework: *Either* through one page of writing, a conceptual map with 3-4 diagrams, *or* two minute of audio recording done on VoiceThread, share what you learned about speakers and waves

2. Option 2: Investigate a fire-based audio visualizer
 - a. Watch a video about a fiery ‘Ruben’s Tube’ audio visualizer here: <https://www.youtube.com/watch?v=BbPgy4sHYTw>
 - b. Homework: *Either* through one page of writing, a conceptual map with 3-4 diagrams, *or* two minute of audio recording done on VoiceThread, explore *one* of the following:
 - i. How a Ruben’s tube works
 - ii. How a standing wave is produced
 - iii. How frequency and amplitude can change and be visualized in a Ruben’s tube

3. Option 3: Discover more about ocean waves, waves on a string, and light
 - a. Watch two videos on transverse waves, power, wave speed, frequency, and ocean waves here:
 - i. <https://www.youtube.com/watch?v=-iO81v42dQA>
 - ii. <http://study.com/academy/lesson/waves-types-features-effect-on-erosion.html>
 - iii. <https://www.youtube.com/watch?v=INqfM1kdfUc>
 - iv. https://phet.colorado.edu/sims/html/wave-on-a-string/latest/wave-on-a-string_en.html
 - b. Homework: *Either* through one page of writing, a conceptual map with 3-4 diagrams, *or* two minute of audio recording done on VoiceThread, create a mini ad campaign informing the public about tranverse waves in and out of water

b. **PART 2:**

Draft two headlines expressing what we did today: one funny (but not vulgar) and one serious and captivating of what we learned in class today