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| **Workshop : The Sound of Science** **National Curriculum Links**KS2 Science: yr 4 Sound* Identify how sounds are made
* Recognise that vibration travel through a medium to the ear
* Investigate pitch
* Find patterns between volume and strength of vibrations

KS2 History: Investigating Local History |
| **Learning objectives** | **Session structure** | **Assessment for learning** |
| **To identify how sound is made.****To investigate how sound travels to our ears.****To understand that some sounds are dangerous for us to hear.** **To investigate how we measure the loudness of sound.****To investigate how we can change the pitch of a sound.****To investigate how sounds were recorded in the past.** | **Introduction**To start the session, we consider how sound travels and how we can hear. **Session activities**We introduce terms such as frequency, decibels and amplitude using actions and class activities such as measuring the decibels of the groups whilst they are quiet, talking and shouting. We describe the different levels of sound and explore how sounds can be dangerous. We investigate frequency and how different humans and animals can hear at different frequencies. The students take part in a series of experiments to investigate how they can change the frequency of sound. We learn about Ernst Chladni and investigate whether we can see sounds before investigating pitch with glass water jars.**Plenary**We finish the session by taking a look at Charles Parsons and his invention of the Auxetophone and the history of sound recording. | Children will explore themes through class and group experiments, we will ask questions throughout to check understanding.Children will have opportunities to respond and give feedback throughout the session. There will be opportunities for Q&A at the end of the session.  |
| **Before your visit** | **After your workshop** | **Key vocabulary** |
| Make a free teacher pre visit to familiarise yourself with the site- contact learning@discoverymuseum.org.uk Explore the museum virtually using goggle institute:<https://artsandculture.google.com/partner/discovery-museum>  | * Visit the sound zone in the Science Maze
* Explore the museum- can you find the auxetophone? How many ways can you find to play and record sound in the science maze?
* Learn more about famous Northeast Inventors with our self-led trails <https://discoverymuseum.org.uk/exploring-discovery-museum-self-led>
 | Sound, wave, vibration, frequency, decibel, amplitude, pitch, Chladni plate,  |