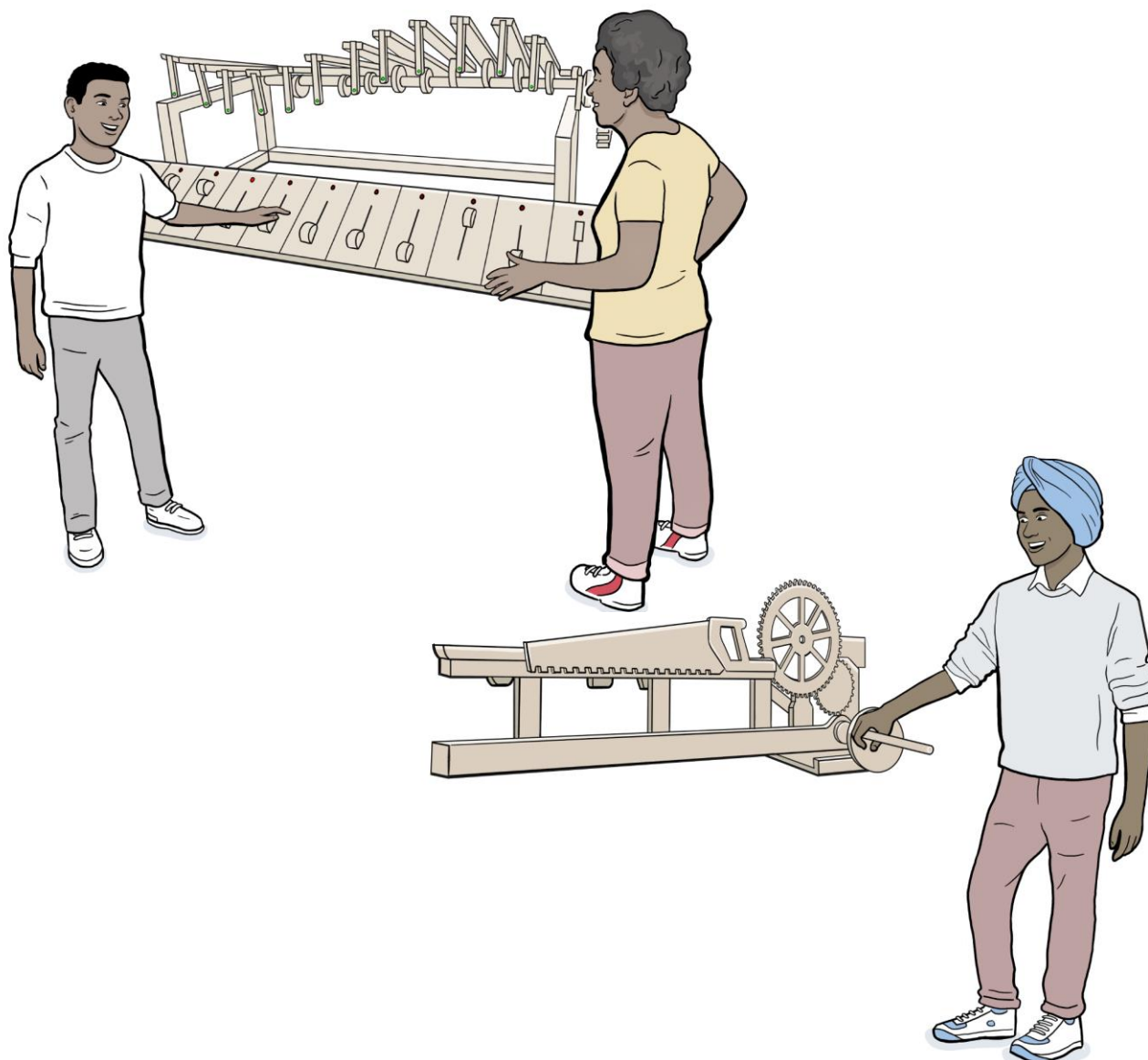


# How can you play with sound?

## SOUND LAB



(Type)	Ages	Topic	Time
Science background	7-14	Sound	<10 mins
Skills used			
Observation - Experimentation			

## Overview for adults

Sound Lab is an art installation by Manchester-based artists, Owl Project, that lets you play and experiment with creating and manipulating music.

### What's the science?

**Wave Player** – As the wave ripples up and down, it triggers notes. By moving the sliders, you can change the notes and create your own music. Some notes sound better together than others because of the way the sound waves interact with each other.

**Saw Player** – As you move the saw backwards and forwards, sensors detect where it is and change the sound that is playing. One of them slices out a short sound sample which you can play forwards and backwards. The other one changes the speed that the music is playing based on which direction the saw is going in.

### Science in your world

DJs cut samples to take a small section of one song and use it in a new one. What songs have you heard that have samples in them?

### Things to think and talk about ...

- Humans have been trying to create the perfect tune for thousands of years. What's your perfect tune?
- Why do some notes sound better together than others?

### Things to investigate ...

- How does changing the speed that music is played at change the sound you hear?
- Play your sound sample faster and slower. How does it sound different?

### Museum links

You can play around with sound more with the voice manipulator in Wonderlab.

### Did you know...?

If you breathe in helium gas from a balloon, your voice sounds high and squeaky. That's because sound travels three times faster in helium than it does in air. The higher-frequency sounds are magnified and you sound like one of the Chipmunks.