

## Tasks & Resources

<b><u>Activity</u></b>	<b><u>Resources Needed</u></b>
1. Sounds around you	Recording of sounds (Sound Matters PowerPoint) and method to play them. "Love it" and "Hate it" cards.
2. a) Sound walk b) What did you hear? c) Create a soundscape	a) Location sheets and envelopes, clipboards, timers/stopwatches, felt tip pens/pencils. b) "Our definition of a soundscape" card. c) Props for participants to create soundscape (optional).
3. The science bit	The science bit PowerPoint and method to play sounds.
4. Links between sounds	Balls of wool. Sound cards. Facilitator needs to record the sound relationships to feedback to the researchers.
5. Positive soundscapes	Flipchart with "We went on a sound walk along/around [ ] and we wish we'd heard..." written on it.
6. Create a soundscape	Laminated park template and images representing different types of sounds. Software package to create soundscape from these sounds (Create a soundscape attachment).

## **Suggested Timetable**

<b><u>Time</u></b>	<b><u>Length of task</u></b>	<b><u>Activity</u></b>
6.00 pm	5 mins	Welcome, health and safety
6.05 pm	10 mins	1. Sounds around you
6.15 pm	10 mins	2a. Sound walk
6.25 pm	10 mins	2b. What did you hear?
6.35 pm	10 mins	3. The science bit
6.45 pm	10 mins	4. Links between sounds
6.55 pm	5 mins	5. Positive soundscapes
7.00 pm	5 mins	Introduce "Create a soundscape" task
7.05 pm	5 mins	Tea/coffee break
7.10 pm	15 mins	6. Create a soundscape
7.25 pm	5 mins	Share with group
7.30 pm	5 mins	Evaluation and end

## 2b – What did you hear?

### **Soundscape background information**

This event was devised in collaboration with scientists from the Acoustics, Audio and Video Department of the University of Salford. They do extensive research into topics including soundscapes, most notably the **Positive Soundscapes project**. This project aims to broaden the current paradigm of noise control toward an understanding of how positive sounds can be characterised and designed into the everyday environment. The work involves integrating perspectives from acoustic engineering, social science and sound art to produce a holistic account of sound perception in the environment.

They also carry out research in other areas such as sound quality, noise from pubs and clubs, performance room acoustics, investigating how room conditions can be improved for good speech communication, and quality music production and reproduction.


The scientists will use results from this event (for example people's expectations of a soundscape [task 5], how they link sounds [task 4], perceptions of sounds [task 3] and opinions of soundscapes [task 1]) for their future research.

## 2b – What did you hear?

There may be some confusion as to what a soundscape actually is. One definition is given on the facilitator card for task 2b. A simple way to think of a soundscape is that it is the aural equivalent of a visual landscape.

Wikipedia defines a soundscape as:

*A **soundscape** is a sound or combination of sounds that forms or arises from an immersive environment. The study of soundscape is the subject of acoustic ecology. The idea of soundscape refers to both the natural acoustic environment, consisting of natural sounds, including animal vocalisations and, for instance, the sounds of weather and other natural elements; and environmental sounds created by humans, through musical composition, sound design, and other ordinary human activities including conversation, work, and sounds of mechanical origin resulting from use of industrial technology. The disruption of these acoustic environments results in noise pollution.*



## **3 – The science bit**

These notes accompany “The science bit” PowerPoint.

### **1. Nice or nasty?**

Sounds have physical features, like pitch or loudness. But they can also have cognitive features like meaning or association. Whether we like a sound can depend strongly on the associations we have with it.

*Sound A = gurgling baby, Sound B = vomiting*

### **2. Environment / context**

Can you tell what the two sounds are?

How pleasant are they as background sounds?


Taken out of their visual context, these two sounds seem similar, because they have similar frequency content.

With the correct visual image, they may seem less alike.

*Sound A = motorway, Sound B = waterfall*

### **3. Dissonance and consonance**

Many sounds contain several frequencies at once (all those we’ve heard so far do).



## **3 – The science bit**

Our ears are very good at locking on to any pattern in the frequencies, and we strongly prefer a regular pattern where higher frequencies are exact multiples of the lowest. This is called consonance and it explains why we like music.

The frequencies in the second sample have been altered to fractional multiples and the resulting sound is dissonant.

*Sample = James Blunt, "You're Beautiful".*

### **4. Periodicity and randomness**

The second sound is simply a looped version of the first, so the waves break with a precise rhythm.

As well as frequency and pitch, our ears also analyse sounds for patterns in the time domain. Although musical sounds are roughly periodic, we seem to prefer some randomness, and it may be one of the ways in which we say if a sound is 'natural'.

### **5. Identification**

What's the relationship between these two sounds?

They are both wind chimes. The second is the first played backwards. It has the same frequency content, but it sounds different because we find it harder to identify.